

February 15, 2012

Toby McBride, Ph.D.
Environmental Contaminants Division
U.S. Fish and Wildlife Service
Sacramento Field Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

RE: East Bay Regional Park District Supplement to Cosco Busan Oil Spill Draft Natural Resource Damage Assessment Restoration Plan / Environmental Assessment (DARP/EA), Dated September 19, 2011

Dear Mr. McBride:

East Bay Regional Park District ("District") completed the Albany Beach Restoration and Public Access Feasibility Study in June 2011. It contains detailed impact analysis germane to the NEPA Environmental Assessment portion of the DARP. Technical reports developed for the study are available on the District's website at <http://www.ebparcs.org/planning#albany>.

Please find attached information that supplements the project description, affected environment, environmental consequences, probability of success and performance criteria and monitoring sections of the DARP/EA for sandy beach, rocky-intertidal and recreational use restoration projects at Albany Beach area (also referred to in the DARP/EA as "Golden Gate Fields North"). This information is based on project specific analysis and background information developed with the *Existing and Future Conditions Report, Albany Beach Restoration and Public Access Feasibility Study* (LSA Associates, January 2011) and *Implementation Approach Report, Albany Beach Restoration and Public Access Feasibility Study* (LSA Associates, June 2011).

Sincerely,

Chris Barton
Senior Planner

Proposed Preferred Alternative

Albany Beach Restoration Project

The project will enhance and expand the beach, dunes and wetlands, stabilize eroding shorelines and improve public access to San Francisco Bay. Sand will be placed on the beach to help support a broad low-profile beach, support existing and expanded dune features and adapt to anticipated conditions under sea level rise. The dunes and seasonal wetlands will be expanded and planted with native vegetation. South Albany Neck shoreline will be stabilized and enhanced with rocky intertidal habitat features. Several subtidal areas will be enhanced for native oysters. Recreational use improvements include a small parking lot that provides Americans with Disabilities Act (ADA)-compliant and non-motorized water craft access. A vault-type restroom, bicycle racks, picnic facilities, park signage, interpretive exhibits and landscaping will be installed. New trails will be constructed, including a segment that would accommodate the future San Francisco Bay Trail. A breakdown of these improvements are as follows:

Sandy Beach

- **Remove Debris and Creosote Timbers:** Inorganic and creosote-treated debris will be removed and disposed. Debris that supports the existing network of interdune seasonal wetlands may be left in place. Grading of dune sand material and revegetation will be conducted to restore disturbed areas.
- **Invasive/Non-native Plant Removal:** Invasive non-native plant species will be removed and disposed. Non-native *Myoporum* shrubs located east of the eucalyptus grove will be removed to open up views, improve alternate informal beach access and eliminate potential for encampments.
- **Beach Enhancement:** Clean sand will be imported and placed to support a broad sandy beach and dune features. The timing and volume of sand placed will be based on estimated rates of shoreline movement, desired beach dimensions and actual conditions within the dune and beach zones.
- **Dune Expansion:** An existing parking lot will be used for dune expansion. Clean sand will be imported and placed to expand the dune zone.
- **Enhance and Expand Existing Wetland:** Inorganic debris and invasive non-native plant species will be removed from the existing seasonal wetland. The wetland will be expanded by grading wetland features within the expanded dunes. Wetland expansion will be sized to provide sufficient capacity for integrated onsite storm water treatment. The wetlands will be planted with appropriate low-maintenance native wetland species.
- **Storm Water Management:** Surface runoff from impervious areas will be directed through a system of bioswales prior to entering the wetlands. The bioswales will be vegetated to improve storm water treatment.

Recreational Use

- **San Francisco Bay Trail Extension (Bay Trail):** The project will construct a trail adjacent to the beach to accommodate future extension of the Bay Trail. The trail will conform to East Bay Regional Park District trail standards. Trail design may include features that

help adapt the site to future sea level rise, hold sand in place and define the expanded shoreline.

- Eucalyptus Grove: The existing eucalyptus grove behind the beach will be retained. Hazardous trees and limbs will be removed.
- Vegetated Buffer: A low-height, low-maintenance native plant buffer will be installed to define the edge between the dunes/wetlands, Bay Trail and Golden Gate Fields property. The buffer will direct public access, protect sensitive habitats, and limit sand deposition on paved areas.
- Signage: A park entrance sign will be installed at Buchanan Street. Interpretive exhibits will be installed at two locations. Informational signs will be installed near the park entrance and on trails to assist with pedestrian and bicycle circulation, and to display park rules and regulations.
- Improve Northern Beach Access: The northern access point connecting the existing trail system to the beach will be graded and resurfaced to meet ADA standards and to accommodate future installation of a bench overlooking the beach.
- Habitat Protection: Fencing will be installed to protect sensitive habitat associated with the dune/wetland complex and to help define trails. Fencing will be designed to be low-maintenance and not obstruct views of San Francisco Bay. Redundant fencing or barricades onsite will be removed and disposed.
- New Picnic Facility: An area north of the eucalyptus grove will be graded and surfaced for up to five picnic tables. If feasible and safe, the picnic facility will be located near the eucalyptus grove for shade and wind protection. Three tables and trash/recycling receptacles will be installed initially. At least one of the tables will be ADA accessible.
- New Southern Beach Access and Non-Motorized Water Craft Staging: An area will be graded and surfaced for staging non-motorized water craft, installation of a bench and access to the beach. Beach access will meet ADA standards. The staging area will be incorporated into the design of a new parking lot.
- New Parking Lot: A new 20-vehicle asphalt and concrete curbed parking lot will be installed east of the beach. Access would be via a new two-way access driveway at the terminus of Buchanan Street. A pipe gate and one-way traffic control/flow plate (i.e., “dragon’s teeth”) would be installed to manage access. The parking lot will be integrated into the site’s storm water management design and accommodate potential future expansion with minimal need for infrastructure relocation. Parking spaces may be designated for the following uses:
 - Five 20-minute restricted spaces for drop-off of non-motorized water craft
 - Five ADA accessible spaces (including one van accessible)
 - Ten unrestricted spaces
- New Restroom: A CXT-type double (two toilet stalls) vault toilet facility will be installed near the non-motorized water craft staging area. The facility will be placed to minimize obstruction of views, site circulation or park amenities.
- Bicycle Racks: A low maintenance bicycle rack capable of holding at least 10 bicycles will be installed near the parking area and non-motorized water craft staging area.

Rocky Intertidal:

- Comprehensive Shoreline Stabilization and Enhancement: The shoreline between Albany Bulb and Beach will be stabilized to prevent erosion, protect water quality and enhance

habitat values. Specific constrained (steep and narrow) sections of shoreline will be stabilized through a combination of grading and placement of engineered rock armoring. In less constrained areas (wider), the shoreline will be reconfigured to create a more gently sloped condition where a combination of materials such as coarse cobble, rock and vegetation can be used to protect the shoreline and encourage sand deposition. Shoreline stabilization and enhancement would also include removal and disposal of invasive non-native plants and debris, and removal and reuse of informal artwork, where feasible.

- Slope and Habitat Protection: A low post and cable fence will be installed between the lower trail and top of the shoreline slope repair to segregate public access areas from shoreline stabilization and habitat enhancement zones. The fence will be designed to not obstruct views.
- Native Oyster Habitat: Rock clusters, groins or other hard structures (e.g., reef balls) will be placed in nearshore subtidal zones below the south shore of the Albany Neck to create substrate for native oyster recruitment and provide refugia for juvenile fish. These structures will be placed in a manner to avoid creation of navigational hazards. These structures are also intended to dissipate wave energy and encourage sand deposition along the Neck shoreline, which would provide potential habitat for eelgrass recruitment or expansion.

Affected Environment

This project is located at Albany Beach, on the east shore of the central San Francisco Bay. This beach is heavily used by the public. Albany Beach experienced heavy oiling during the spill event, which closed the beach for several weeks, as well as tarball re-oiling events into the summer of 2008. Rocky intertidal improvements will provide improved habitat for invertebrates and fish affected by the spill event.

Environmental Consequences (Beneficial and Adverse)

The project will not change the use of areas affected by the spill. It is consistent with current land use patterns and regulations and will implement Eastshore State Park General Plan. Under the preferred alternative, inland dune formation and native plant revegetation would not have significant adverse impacts. The dunes would be designed to expand onto a paved area currently used for parking. Dune and native plant revegetation design will be integrated to benefit wildlife function and physical sustainability of the dunes. This integration approach will ensure that dunes also provide water quality benefits to the area. Re-establishment of native beach and dune plant communities on site will benefit dune stability and benefit species by providing high quality and expanded foraging habitat. Removal and disposal of debris, such as creosote timbers, will help protect San Francisco Bay fisheries and invertebrates. Removal of inorganic debris, such as plastics will help prevent waterbirds from ingesting harmful materials. Under "Other Projects Considered", rocky shoreline restoration along south Albany Neck will create a range of protected interstitial spaces and surfaces for oysters to attach to and create colonies and should help to stabilize sand to promote eelgrass establishment. Native oysters along the rocky shorelines in the project area will provide a source of propagules (spat) for recruitment to the Albany Beach area following the installation of rocky intertidal substrate improvements. Native plants will be installed at appropriate locations along the slope to stabilize soils and to establish transitional refugia/habitats between shoreline and upland zones.

These transitional habitat zones will complement and augment existing resources including animals, birds and insects that utilize the site. The existing South Albany Neck lower trail will be graded to help stop sedimentation to San Francisco Bay. The low post and cable type fence installed along South Albany Neck will protect the slope and planting areas from unauthorized access.

Disturbance from removal of artificial shoreline substrate, replacing non-native vegetation with native plants, placement of fill, trail development, installation of public access improvements and construction activity associated with implementing the project will not have significant adverse impacts on the environment. A team of four biologists conducted reconnaissance-level surveys of the project area on March 26, 2010. The three to seven-hour field surveys concentrated on a general assessment of the biological resources of the terrestrial and near shore marine environments of the project area and the identification of biological opportunities and constraints for potential restoration and public access improvements. Matt Ricketts and Eric Lichtwardt surveyed for wildlife and their habitats. Leslie Allen and Tim Milliken surveyed and mapped wetlands, plant species and vegetation types. Dr. Katharyn Boyer visited the project area on March 4, 2010 to assess existing eelgrass beds and potential eelgrass habitat. Leslie Allen conducted multiple site visits between November 2009 and May 2010 to confirm the accuracy of data collection and conclusions. 20 special-status animal species are identified as potentially occurring in the project area vicinity. The table below summarizes the status, habitat requirements, and potential for occurrence of these species within the project area. Most of these species have at least some potential to occur in the project area on an occasional basis, but are not expected to regularly forage or nest there due to a lack of suitable habitat and/or existing disturbance levels associated with recreational use of the trails and beaches. Burrowing owl (*Athene cunicularia*) has moderate potential to winter among the concrete riprap along the North Shore and future restoration activities or public access improvements in this area may affect this species, if present. As a precaution, pre-construction surveys will be conducted prior to disturbance of habitat.

Table I: Evaluation of Potential Species Occurrence in Vicinity of Albany Beach, Eastshore State Park, California

Species	Status* (Federal/State/ Other)	Habitat/Blooming Period	Discussion
Plants			
Robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FE/-/CNPS 1B	Marine chaparral, coastal dunes, and sandy or gravelly soils in coastal scrub. April-September	Robust spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>) is a federally endangered annual herb that occurs in coastal dunes, coastal scrub, chaparral, and cismontane woodland. Coastal scrub habitat is present in the Albany Beach project area, yet the clay soils do not provide suitable microhabitat for this species. Furthermore, this species is thought to be extirpated from the area and has not been reported since the time collections were made in the 1890s near Alameda.

Species	Status* (Federal/State/ Other)	Habitat/Blooming Period	Discussion
Soft bird's-beak <i>Cordylanthus mollis</i> ssp. <i>mollis</i>	FE/SR/CNPS 1B	Salt marsh July-September	Soft bird's beak is federally listed endangered, and state-listed rare annual herb that is known from fewer than 15 occurrences (CNPS 2010). The nearest CNDDDB occurrences are from the Point Pinole and Mare Island areas. Not expected to occur due to lack of tidal marsh habitat.
Mason's lilaepsis <i>Lilaeopsis masonii</i>	-/SR/CNPS 1B	Tidal zone of freshwater and brackish marshes. June-August	Mason's lilaepsis 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 CNDDDB occurrences are from around Mare Island in Solano County. This species requires brackish waters with salt concentrations that are probably lower than at the salinity of the water at Albany Beach. There is no slough habitat on site, and the existing pilings are not degraded enough to support this species. Not expected to occur due to lack of suitable tidal marsh habitat.
California seablite <i>Suaeda californica</i>	FE/-/CNPS 1B	July-October	California seablite is a federally endangered, perennial shrub found in coastal salt marshes. Closest CNDDDB occurrence is a 1912 record from Fleming Point area, outside the project area. Although this species' habitat has been severely disturbed throughout its range, several recent occurrences at restored tidal sites within the San Francisco Bay indicate that it could occur in the protected rocky and rip-rap areas along the shore (Presidio 2004, CNDDDB 2010, LSA 2009).
Suisun marsh aster <i>Symphotrichum lentum</i>	-/-/CNPS 1B	Brackish and freshwater marshes and swamps, most often seen along sloughs. May-November	Suisun marsh aster is a perennial rhizomatous herb that occurs in freshwater and brackish marsh habitat. The nearest extant CNDDDB population of this plant is from a seasonally wet area at Point Molate in West Richmond. Seasonal wetland habitat is present on the site, yet it's unlikely that this area provides suitable microhabitat required for this species.
Fish			
Green sturgeon, Southern DPS <i>Acipenser medirostris</i>	FT/-/-	Near shore marine waters, bays and estuaries, spawns in rivers in deep fast water over large cobbles, but also clean sand to bedrock. Southern most spawning population in the Sacramento River.	May occasionally visit Bay waters within project area.
Tidewater goby <i>Eucyclogobius newberryi</i>	FE/-/CSC	Fresh to brackish shallow lagoons and lower stream reaches with still, but not stagnant, water	No suitable habitat present, not expected to occur. Considered extirpated from San Francisco Bay (Moyle 2002), but some small populations may persist (Leidy 2007).

Species	Status* (Federal/State/ Other)	Habitat/Blooming Period	Discussion
Chinook salmon (Sacramento River winter- run ESU ¹) <i>Oncorhynchus tshawytscha</i>	FE/--	Anadromous: spawns in Sacramento River system; occurs in small numbers in Central Bay	May occasionally visit Bay waters within project area.
Chinook salmon (Central Valley spring-run ESU)	FT/--	Anadromous: spawns in Sacramento River system; occurs in small numbers in Central Bay	May occasionally visit Bay waters within project area.
Steelhead (central California coast ESU) <i>Oncorhynchus mykiss</i>	FT/--	Anadromous: spawns in coastal streams in fall and winter; occurs in small numbers in Central Bay	May occasionally visit Bay waters within project area.
Coho salmon (central California ESU) <i>Oncorhynchus kisutch</i>	FE/--	Anadromous: spawns in coastal streams in fall and winter	May occasionally visit Bay waters within project area.
Birds			
California brown pelican <i>Pelecanus occidentalis californicus</i>	--/CFP	Coastal shorelines and bays; rarely found on fresh water	Known to forage in shallow subtidal portions of Eastshore State Park (LSA 2002a), including project area waters. Individuals may occasionally roost on Fleming Point Pier.
White-tailed kite <i>Elanus leucurus</i>	--/CFP	Open grasslands, meadows, or marshes; requires dense-topped trees or shrubs for nesting and perching	Marginal nesting and foraging habitat present at Albany Bulb, but unlikely to nest in ruderal scrub in project area due to ongoing disturbance associated with trail users and pets. Nesting has been documented in the vicinity of Berkeley Meadow approximately 1.6 miles south of the project area (CDFG 2010), but not in recent years.
Northern harrier <i>Circus cyaneus</i>	--/CSC	Nests in wet meadows and marshes, forages over open grasslands and agricultural fields	Marginal foraging habitat present at Albany Plateau, but limited in project area. Not expected to nest on or near project area due to ongoing disturbance associated with trail users and pets. Historically known to nest in northwestern corner of Berkeley Meadow (CDFG 2010; LSA 2002a), but not in recent years.
American peregrine falcon <i>Falco peregrinus anatum</i>	--/CFP	A variety of open habitats including coastlines, mountains, marshes, bay shorelines, and urban areas; nests on cliffs, bridges, and tall buildings	May occasionally forage over project area shoreline but not expected to nest due to lack of suitable nest sites on or adjacent to project area. Known to occasionally forage over Albany Mudflats (LSA 2002a).
California black rail <i>Laterallus jamaicensis coturniculus</i>	--/ST/CFP	Salt marshes bordering larger bays, also found in brackish and freshwater marshes	Not expected to occur due to lack of suitable marsh habitat.
California clapper rail <i>Rallus longirostris obsoletus</i>	FE/SE/CFP	Tidal salt marshes with sloughs and substantial cordgrass (<i>Spartina</i> sp.) cover	Not expected to occur due to lack of suitable tidal marsh habitat.
California least tern <i>Sterna antillarum browni</i>	FE/SE/CFP	Sandy beaches, alkali flats, hard- pan surfaces (salt ponds).	Occasionally forages over Bay waters in project area between April and July. Observed nesting on created shell islands just south of Central Avenue in Albany in 2000 (LSA obs.), approximately 0.6 mile

¹ ESU = Evolutionarily Significant Unit. The National Marine Fisheries Service (NMFS) considers an ESU a “species” under the Endangered Species Act.

Species	Status* (Federal/State/ Other)	Habitat/Blooming Period	Discussion
			north of project area.
Burrowing owl <i>Athene cunicularia</i>	-/-/CSC	Open habitats (e.g., grasslands, agricultural areas) with mammal burrows or other features (e.g., culverts, pipes, debris piles) suitable for nesting and roosting.	Wintering individuals may occasionally use concrete rip-rap along North Shore, which provides marginal roosting habitat. Has been observed wintering at scattered locations in project area vicinity, including Albany Bulb, Cesar Chavez Park, North Basin Strip, and Berkeley Meadow (LSA 2002a, obs.; EBRPD obs. 2009 and 2010), but no nesting confirmed to date.
Salt marsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	-/-/CSC	Salt, brackish, and freshwater marshes; and riparian woodlands. Nests on or near ground in low vegetation.	Not expected to occur due to lack of suitable marsh habitat.
Alameda song sparrow <i>Melospiza melodia pusillula</i>	-/-/CSC	Tidal salt marshes on the fringes of south and central San Francisco Bay. Nests primarily in pickleweed and gumplant.	Not expected to nest in project area due to lack of suitable tidal marsh habitat, but individuals from nearby marsh populations may occasionally forage or disperse through area. Song sparrow heard in project area ruderal scrub during LSA reconnaissance survey may have been a stray individual from nearby marshes fringing Albany Mudflats, or may have belonged to upland <i>gouldii</i> subspecies.
Mammals			
Salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE/SE/CFP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed for cover.	Not expected to occur due to lack of suitable tidal marsh habitat.
California sea lion <i>Zalophus californianus</i>	-/-/MMPA	Coastal waters. Haul out on offshore rocks, sloping rock outcrops, beaches, jetties, and buoys.	May occasionally forage in Bay waters in project area but not expected to haul out due to ongoing disturbance associated with trail users and pets.
Harbor seal <i>Phoca vitulina</i>	-/-/MMPA	Nearshore marine waters, bays, and estuaries. Haul out on emergent offshore and tidal rocks, mudflats, sandbars, and beaches.	May occasionally forage in Bay waters in project area but not expected to haul out due to ongoing disturbance associated with trail users and pets.
Southern sea otter <i>Enhydra lutris nereis</i>	FT/-/CFP	Nearshore marine waters off California coast from Point Conception to Half Moon Bay. Favors kelp beds for shelter from high surf and predators.	Stray individuals may occasionally venture into project area but such occurrences are expected to be rare and short in duration. One such individual was observed on January 8, 2002, swimming and diving just offshore from the southwest end of the Albany Bulb (J. Blomberg and J. Haltiner, personal communication, cited in LSA 2002a).

* Status Codes:

FT = Federally listed as threatened

FE = Federally listed as endangered

SE = State-listed as endangered

ST = State-listed as threatened

CNPS IB = California Native Plant Society (CNPS) List IB: plants rare, threatened, or endangered in California and elsewhere

CNPS 2 = CNPS List 2: plants rare, threatened or endangered in California but more common elsewhere

CNPS 3 = CNPS List 3: plants about which more information is needed to assign them to a list

CNPS 4 = CNPS List 4: plants of limited distribution – a watch list

CFP = California Fully Protected Species

CSC = California Species of Special Concern

MMPA = protected by Marine Mammal Protection Act

-- = no status

Several special-status fish species occur in San Francisco Bay (Table I), 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 (Table 8.1) 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 project will be designed to avoid or minimize impacts to special status fish species or their habitats. The District will consult with National Marine Fisheries through the USACE to develop and implement measures that avoid or minimize potential impacts to special status fish species as appropriate.

A valued aquatic resource, eelgrass (*Zostera marina*), occurs within the project area. This submerged vascular plant occurs in approximately 3,700 acres of 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 in review). Within the project area, approximately 0.7 acre was present in 2003 according to a survey using sidescan sonar (Merkel and Associates 2004). The 2003 data are mapped in Figure 18. The acreage of eelgrass within the project area increased substantially between 2003 and 2009, according to a survey using the same methods in fall 2009 (Merkel and Associates 2009, in review). While this most recent survey is not yet publicly available, a draft of the document shows the increase in eelgrass acreage in the project area is on the order of five-fold. A bay-wide expansion in eelgrass acreage is evident from this draft report and personal observations of this section's author (K. Boyer, San Francisco State University), perhaps reflecting the mild winters and resulting low turbidity of the past several years. In conjunction with project approvals through USACE and the RWQCB, the District will design shoreline repairs to avoid or minimize impact to eelgrass and will implement sediment and erosion control measures that will protect eel grass habitat from project impacts.

Federally protected waters of the US could be either temporarily or permanently impacted by the project from work in rocky intertidal habitat. Prior to construction, East Bay Regional Park District will obtain a Section 404 permit from the Corps and Section 401 water quality certification from the RWQCB to authorize the proposed fill of the jurisdictional features, as appropriate.

The project will not impact cultural or historic resources. Cultural resources analysis of the project area and vicinity was conducted by E. Timothy Jones, LSA Associates archaeologist. The project area and vicinity consists primarily of artificial fill and bay mud. Artificial fill, consisting of various construction and demolition debris, was deposited on tidal mudflats and open water in the project area beginning in 1963 to create the Albany Bulb and Plateau (Subsurface Consultants, Inc., 2002). Neither the artificial fill nor bay mud, which are up to 40 and 65 feet thick, respectively (Subsurface Consultants, Inc. 2002), are known to contain significant paleontological resources.

Franciscan Formation sediments of shale and sandstone comprise Fleming Point and underlie the artificial fill and bay mud at considerable depth. Jurassic-Cretaceous period (206 to 65 million years ago) Franciscan sediments contain marine invertebrates such as ammonites and extinct relatives of modern cephalopods such as squid (Armstrong and Gallagher 1977; Hertlein 1951 and 1956; Page 1966; Schlocker et al. 1954). Although rare, vertebrate fossils have been recorded in Franciscan Group and similarly aged sediments in California.

Human occupation of the Bay Area began between about 7,000 and 4,000 years ago as Holocene glacial melt flooded the coastal valley of what is now San Francisco Bay (Moratto 1984). Native groups settled around the bayshore at places close to marsh resources with sources of fresh water, such as at the mouths of perennial creeks. These native groups left remnants of their occupation along the East Bay shoreline, the most notable of which are “shellmounds,” extensive archaeological deposits containing a rich, diverse assemblage of dietary remains, artifacts, and human remains.

The descendants of these native groups who inhabited the Albany area are known as Ohlone, although they are often referred to by the name of their linguistic group, Costanoan. The project site is within the former ethnographic territory of the Huichiun tribelet of Ohlone, who occupied a large area along the East Bay shore. The Huichiun spoke Chochenyo, one of eight Ohlone languages. Ohlone culture was rapidly transformed when European settlers moved into northern California. These settlers set up the mission system and exposed the Ohlone to diseases to which they had no immunity. After the secularization of the missions in 1834, native people in the Bay Area moved to ranchos, where they worked as manual laborers (Levy 1978).

Spanish settlement in the Bay Area focused around missions and presidios at Monterey, Santa Cruz, San Juan Bautista, San Jose, Santa Clara, San Francisco, San Rafael, and San Francisco Solano. No missions were established in the East Bay, despite its agricultural fertility and native population. The Spanish referred to the East Bay as Contra Costa – the “opposite” or “other” coast – and saw it as something of a backwater.

Given the generally negative Spanish impression of the East Bay, it is unsurprising that Luis Peralta, 1820 grantee of a 50,000 acre tract encompassing the modern cities of Oakland, Berkeley, Alameda, Albany, Emeryville, Piedmont, and parts of San Leandro, was disappointed with his grant. Peralta, a retired sergeant with 40 years in the service of the Spanish crown, had hoped for lands closer to San Jose, his final post.

In the wake of the gold rush, squatters moved into the rich farmland on the flats of the Peraltas' Rancho San Antonio, in what is today western Berkeley and Albany. Industry developed along

the bay shoreline throughout the second half of the nineteenth century in response to the construction of shipping facilities and the readily available East Bay land. Difficult as it is to believe today, when a bay view dramatically increases the price of real estate throughout the Bay Area, at the beginning of the twentieth century the bayshore was seen as a good place to put “undesirable” industries and activities. Fleming Point became the location first of an explosives company, then of the San Francisco Chemical Company, which manufactured various acids for industrial and laboratory use (Albany Police and Fire Employees Civil Service Club 1947; Sanborn Map Company 1911). Fleming Point was far enough away from the houses of Albany and Berkeley to assuage local residents’ fear that fires and explosions at the factories would damage their homes.

The city of Berkeley, in turn, used its shoreline for municipal waste disposal. According to historian George A. Pettitt, in 1908, the city built a \$60,000 waste incinerator at Fleming Point; a year later, its use was discontinued because it was costing \$21,000 per year to operate. After a brief experiment in which a steamship company was hired to dump waste in the bay, Berkeley entered a partnership with Emeryville and re-opened the incinerator. By 1923, Berkeley residents had their fill of the smell and the cost of operating the incinerator and approved a plan to bury their garbage in a “fill and cover” landfill (Pettitt 1973). The practice of using the shoreline for waste and fill disposal would continue into the 1980s and created much of the current Albany shoreline.

Even as it was used for waste disposal, the northern East Bay shoreline remained highly visible to a large group of local residents: East Bay ferry commuters. Before the completion of the Bay Bridge in 1936, East Bay residents relied on a network of trains, streetcars, and ferries to get them to San Francisco’s jobs and shopping. Piers were built over the mud flats of the bayshore to deeper water. The remains of one such pier, a water taxi dock that once linked travelers between San Francisco and the Golden Gate Fields race track, are visible at Fleming Point.

The waterfront remained an industrial area through much of the twentieth century, but recent years have seen a gradual decline in manufacturing businesses. Industry is slowly being replaced by retail operations: the Costco on Point Isabel, Berkeley’s Fourth Street development, and Emeryville’s shopping centers.

Cultural resources records searches were done for the project area at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park, and at the Native American Heritage Commission (NAHC) in Sacramento. The NWIC is an affiliate of the State Office of Historic Preservation and is the official state repository for cultural resources reports and records for Alameda County. The NAHC manages the Sacred Land File, a database that indicates culturally significant lands recognized by Native American groups.

As part of the records search, the following State of California and local inventories for baseline condition information were reviewed by E. Timothy Jones, LSA Associates archaeologist:

- California Inventory of Historic Resources (CDPR 1976).
- Five Views: An Ethnic Historic Site Survey for California (California Office of Historic Preservation 1988).

- Directory of Properties in the Historic Property Data File for Alameda County (Office of Historic Preservation, October 23, 2009). The Directory of Properties includes the listings of the National Register of Historic Places, the California Register of Historical Resources, the California Historical Landmarks, and California Points of Historical Interest.
- Eastshore Park Project Resource Inventory: Recreation, Scenic, and Cultural Resources (LSA 2002b).

Contact with potentially interested parties was initiated with organizations and individuals that may have information or concerns regarding cultural resources in the project area. LSA sent letters describing the project and maps depicting the project area on April 29, 2010, to local Native American representatives and organizations identified by the NAHC, and on April 23, 2010, to the Albany Historical Society.

Debbie Pilas-Treadway, NAHC Environmental Specialist, responded in a letter on April 27, 2010, that a review of the Sacred Lands File did not indicate any “Native American cultural resources in the immediate project area.” Ms. Sanchez also provided LSA with a list of local Native American representatives that may have knowledge or concerns regarding cultural resources in the project area. LSA contacted these individuals via letter on April 29, 2010. No responses to these letters have been received to date.

LSA contacted the Albany Historical Society (Society) on April 23, 2010, via letter to determine if the Society had information or concerns regarding cultural resources in the project area. No response has been received from the Society to date.

The project area and vicinity consists primarily of artificial fill deposited c. 1963-1980s and Holocene (10,000 years to present) bay mud. These deposits are not of sufficient age to contain fossils. Jurassic-Cretaceous Franciscan Formation deposits, which have the potential for containing invertebrate and vertebrate fossils, are exposed at Fleming Point. Fossiliferous Franciscan Formation deposits also underlie the artificial fill and bay mud but are at considerable depth and are unlikely to be affected by restoration or public access projects.

No prehistoric or historical archaeological sites are recorded in the project area. Although prehistoric archaeological sites are recorded in the vicinity of the project area, these are located mostly east of Interstate 80, near the pre-1850 shoreline, and are well outside areas where restoration and public access might occur.

The California States Lands Commission Shipwreck inventory indicates that the 19-ton wood scow sloop Norman was driven ashore at Fleming Point in 1879 (Allan 2006). As noted by Allan (2006), “Although the exact location of this wreck is unknown, there is a possibility that the ship or portions of the ship are located under the fill.” A review of historical maps indicate industrial and transportation related buildings and structures at Fleming Point (Sanborn Map Company 1911; USGS 1899), including piers/docks and a warehouse associated with the San Francisco Chemical Company manufacturing facility. With the exception of the Fleming Point Pier remains, no known industrial or transportation related structures or buildings remain in the project area. The remains of the Fleming Point Pier were recorded in 2001 (Gillies and

Kelley 2001) and assigned the primary record number P-01-010617 by the NWIC. The resource consists of the remains of a wood and concrete L-shaped pier and may have served as a ferry landing for a water taxi service between San Francisco and Golden Gate Fields beginning in the 1950s (San Francisco News-Call Archives 1947). The pier, in isolation, appears to lack the historical associations with notable events or people, the fine engineering and design qualities, and the data potential necessary to meet the criteria of either the National or California registers. The project will not disturb Fleming Point or Fleming Point Pier as it is located more than 800 feet north of these resources.

Analysis, background information and references cited are taken from the *Existing and Future Conditions Report, Albany Beach Restoration and Public Access Feasibility Study* (LSA Associates, January 2011) and *Implementation Approach Report, Albany Beach Restoration and Public Access Feasibility Study* (LSA Associates, June 2011). These documents are incorporated and referenced herein.

Probability of Success

The probability of success is high. The project is a high priority for East Bay Regional Park District. Significant effort has been made to improve the East Bay shoreline at Eastshore State Park with the completion of the Eastshore State Park General Plan, restoration of the Berkeley Meadow and completion of the Albany Beach Habitat Restoration and Public Access Feasibility Study. The Feasibility Study process included considerable public outreach. Seven public meetings, including two community workshops were held through the development of the study. The City of Albany adopted a resolution supporting the project on May 4, 2011 (Resolution No. 2011-34).

A 5 year maintenance and monitoring schedule will be implemented immediately following project completion. Maintenance will focus on plant establishment tasks such as weeding, watering and plant replacement/re-seeding. Regulatory/permitting agency monitoring requirements and criteria are not yet known for this project. A 5 year monitoring program that collects data to help inform overall success of the project and meets other regional data collection needs is anticipated.