

East Bay Regional Park District

**Regional Maintenance Activities
Alameda and Contra Costa Counties**

ATTACHMENT C

**Federally Listed Species that Occur Within
East Bay Regional Park District Property**

Federally listed species that occur within East Bay Regional Park District and potentially occur at various project sites that are covered under the U.S. Fish and Wildlife Service and NOAA – National Marine Fisheries Service programmatic consultation (November 16, 2006).

Longhorn fairy shrimp (*Branchinecta longiantenna*)
Vernal pool fairy shrimp (*Branchinecta lynchi*)
Vernal pool tadpole shrimp (*Lepidurus packardii*)
Delta smelt (*Hypomesus transpacificus*)
Chinook salmon (*Oncorhynchus tshawytscha*)
Steelhead (*Oncorhynchus mykiss*)
California tiger salamander (*Ambystoma californiense*)
California red-legged frog (*Rana draytonii*) formally (*Rana aurora draytonii*)
Giant garter snake (*Thamnophis gigas*)
California clapper rail (*Rallus longirostris obsoletus*)
Salt marsh harvest mouse (*Reithrodontomys raviventris*)
Contra Costa goldfields (*Lasthenia conjugens*)
Soft bird-beak (*Cordylanthus mollis* ssp. *mollis*)

These thirteen covered species could potentially occur at various proposed routine maintenance project sites within the East Bay Regional Park District. To assess potential effects on federally listed we are providing a quantitative and qualitative analysis of all the East Bay Regional Park District's (District) routine maintenance projects conducted under our U.S. Army Corps of Engineer's General permits Numbers 23394S and 28902S. This includes evaluating potential impacts of routine maintenance projects to federally listed species and potential effects to critical habitat. From 1998-2009 the District worked on a total 247 projects in a variety of wetlands throughout our parklands. One hundred twenty three of these projects had no permanent impact or wetland loss and 124 projects had some permanent impact resulting in wetland loss per project ranging from <0.0001 acres to 0.09 acres, for an overall cumulative total of 1.016 acres of permanent wetland loss. To compensate for this wetland loss the District created and/or restored > 2.58 acres of lentic water habitat.

Not all of the 247 routine maintenance projects occurred in habitat that support federally listed species. Within the District, the California red-legged frog (*Rana draytonii*) occurs in 81 ponds and 26 district stream reaches, and California tiger salamander (*Ambystoma californiense*) have been documented breeding in 80 stock ponds, where 39% of the ponds these two species are sympatric. During the eleven year permit period, 116 routine projects were completed in potentially suitable habitat and 55 projects resulted in some permanent wetland loss within the distributional range of the California red-legged frog. The impacts per project ranged from <0.0001 to 0.02 acres, for an overall total of 0.360 acres of permanent wetland loss in areas which potentially provide habitat for this species. The other 61 projects had minimal temporary impact and resulted in no permanent wetland loss or adversely affected aquatic breeding or non-breeding habitats.

While 101 routine projects were completed within the distributional range of California tiger salamander, none of the projects impacted lentic waterbodies or resulted in temporary or permanent loss of aquatic breeding habitat. In addition, the vast majority of routine maintenance projects occurred in various drainages and stream reaches that do not support California tiger salamander breeding populations. The projects primarily include the replacement of culverts and installation of armored fords on existing roads with un-measurable temporary disturbance to suitable upland habitat for California tiger salamanders.

Although these projects occurred in the distributional range of the California red-legged frog and/or California tiger salamander, not all of the projects occurred within critical habitat designation or in areas known to support the species. Large portions of District lands are excluded from critical habitat designation of California tiger salamander (Federal Register: August 23, 2005 – Volume 70, Number 162). In addition as previously stated, none of the routine maintenance projects had a direct, indirect, and/or cumulative effect on aquatic or terrestrial habitat known to support or potentially suitable for California tiger salamanders.

Similarly, the vast majority of the District's parklands in eastern Contra Costa County are excluded from critical habitat designation for California red-legged frog (Federal Register: March 17, 2010 – Volume 75, Number 511). However, critical habitat units in Alameda and Contra Costa Counties include District lands.

Consequently, the District's eleven years of routine maintenance projects permanently impacted 0.287 acres of wetlands within California red-legged frog critical habitat designation, and 0.098 acres of wetland loss within the critical habitat designation for the California tiger salamander (Federal Register: August 23, 2005 – Volume 70, Number 162). However, most of the permanent wetland loss in critical habitat designation occurred at sites where we have not documented these species. In fact, the 0.098 acres of permanent impacts affected lotic habitat and in streams that do not support California tiger salamander breeding populations. Moreover, from 1998-2009 we have not documented any California red-legged frogs or California tiger salamanders at the projects sites. Nevertheless, to assist in the conservation and recovery, the District has restored and/or created 2.40 acres of California red-legged frog and 0.78 acres of California tiger salamander lentic water habitat.

Although District lands support populations of longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardii*), these species are restricted to isolated rock out-crop waterbody depressions at Vasco Caves and Brushy Peak Regional Preserves (Federal Register: August 11, 2005 – Volume 70, Number 154). We have not documented any of these crustaceans in other waterbody sites. In addition, these rock out-crops are protected features and have not been impacted by anthropogenic effects associated with any project. While routine maintenance projects have occurred in the distributional range of these species, none of the projects have impacted any waterbodies known to support these species. Only one project occurred in critical habitat designation. However, it was within a high gradient seasonal stream which is considered not suitable aquatic habitat to support these species.

Many of the District's shoreline units are within the distributional range of California clapper rail (*Rallus longirostris obsoletus*) and salt marsh harvest mouse (*Reithrodontomys raviventris*). The California clapper rail successfully nests at several shoreline units, most notably at Hayward and Martin Luther King Jr. Regional Shorelines where the dense vegetative cover supports high rail densities. Similarly, the salt marsh harvest mouse have been documented at Coyote Hills, Hayward Marsh, Salt Marsh Harvest Mouse Preserve, Oro Loma Marsh, Emeryville Crescent, Hoffman Marsh, Martinez East, Pittsburg West, and Waterbird (Shell) Marsh. These salt water emergent marshes are pickleweed (*Salicornia virginica*) dominated sites which provide habitat for the salt marsh harvest mouse. Typical routine maintenance projects along our shorelines have consisted of protecting or repairing existing levees and upland structures. During the eleven year permit periods, seven routine projects were completed in potentially suitable habitat and only one project resulted in 0.07 acres of permanent wetland loss within the distributional range of the California clapper rail. An additional 0.05 acres of wetlands were temporarily impacted during the construction period of replacing rip-rap on outboard eroded levees with no vegetation. Likewise, during this period, five routine projects were completed in distributional range of salt marsh harvest mouse and temporarily impacted 0.10 acres of potentially suitable habitat along levees. However, the vast majority of these maintenance project sites were along out-board exposed levees in areas where we have not documented California clapper rail or salt marsh harvest mouse in locations with suitable habitat to support these species.

The north eastern shoreline edge of Contra Costa County is just within the distributional range of the giant garter snake (*Thamnophis gigas*). Although Big Break Regional Shoreline contains suitable habitat to support this species, we have not documented giant garter snake at the shoreline. Moreover, no routine maintenance projects have occurred in this region with aquatic or terrestrial habitat potentially suitable for this species.

District shorelines from Suisun Bay to the Delta Region of the San Joaquin River are in the distribution range of Delta smelt (*Hypomesus transpacificus*) which occupy and disperse into stream channels and tidal backwater sloughs. During the eleven year permit period, four routine projects were completed in potentially suitable habitat and only one project resulted in 0.009 acres of permanent wetland loss within the distributional range of Delta smelt. An additional 0.01 acres of wetlands were temporarily impacted during the period of construction to replace existing rip-rap, culvert, and flapper gate. All four of these projects occurred in critical habitat designation for Delta smelt (Federal Register: December 19, 1994 – Volume 59, Number 242). However, these routine maintenance projects did not impact any submerged or emerged aquatic vegetation and had minimal disturbance or adverse affect to Delta smelt habitat.

The District's shorelines and several parklands are in watersheds with steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*), most notably in lower Alameda Creek and Delta Regions along the San Joaquin River. Though during the eleven year permit periods many routine maintenance projects have been performed in drainages and streams, none have occurred in reaches occupied by these salmonids or considered active spawning corridors. While six routine maintenance projects resulted in 0.07 acres of permanent wetland loss were completed in potentially suitable estuarine salmonid habitat along shorelines of San Francisco and Suisun Bays, these projects consisted of protecting or repairing existing levees and flap gate structures. Additionally, the vast majority of rip-rap was placed above mean high water line with minimal affect to steelhead and Chinook salmon habitat.

Critical habitat designation for salmonids including steelhead and Chinook salmon has been determined throughout various regions of the San Francisco Bay Region (Federal Register: September 2, 2005 – Volume 70, Number 170 and Federal Register: January 5, 2006 – Volume 71, Number 3). However, the streams and drainages within District lands, including previously occupied steelhead habitat areas of Wildcat Creek and upper Alameda Creek are not considered Distinct Population Segments or included in the

critical habitat designation (Federal Register: September 2, 2005 – Volume 70, Number 170 and Federal Register: January 5, 2006 – Volume 71, Number 3). Similarly, District lands are not included in the critical habitat designation for Chinook salmon (Federal Register: September 2, 2005– Volume 70, Number 170). Nevertheless, the District has removed several migratory barriers and been very involved in efforts to re-establish an anadromous steelhead and possibly Chinook salmon to upper Alameda Creek.

Contra Costa goldfields (*Lasthenia conjugens*) are habitat limited to vernal pools in open grassy areas at elevations up to 470 meters. Although several Contra Costa goldfield populations are included in critical habitat designation (Federal Register: August 11, 2005 – Volume 70, Number 154), none of the sites are within District lands. In addition, we have not documented or confirmed any individual plants or populations of Contra Costa goldfields on District lands. Thus, routine maintenance projects have not impacted Contra Costa goldfields or critical habitat designation.

Soft bird's-beak (*Cordylanthus mollis* ssp. *mollis*) occurs on the upper reaches of coastal salt marshes, primarily at the limits of tidal influence. It is associated with *Salicornia virginica*, *Distichlis spicata*, *Jaumea carnosa*, *Frankenia salina*, and *Triglochin maritima*. The only District population occurs on the transition zone between shoreline sand and the pickleweed (*Salicornia virginica*) marsh along the northeast corner of Point Pinole Regional Shoreline, a location where no routine maintenance activities have occurred.

Here are other federally listed species that occur within Alameda and Contra Costa Counties and potentially on District lands and various project sites.

Santa Cruz tarplant (*Holocarpha macradenia*)

Large-flowered fiddleneck (*Amsinckia grandiflora*)

Presidio clarkia (*Clarkia franciscana*)

Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*)

Pallid manzanita (*Arctostaphylos pallida*)

Alameda whipsnake (*Masticophis lateralis euryxanthus*)

Western snowy plover (*Charadrius alexandrinus nivosus*)

California least tern (*Sterna antillarum browni*)

San Joaquin kit fox (*Vulpes macrotis mutica*)

These additional nine species could potentially occur at various proposed routine maintenance project sites within the East Bay Regional Park District. However, most of these species, except for the Western snowy plover and California least tern, are generally associated with upland habitats. Moreover, excluding the Alameda whipsnake, these species have limited distributional range and/or occurrence on District lands.

Santa Cruz tarplant (*Holocarpha macradenia*) is found on coastal prairies and grasslands, often with clay or sandy-clay soils, between 10 meters and 220 meters elevations. This species is most frequently associated with non-native grasses and non-native French broom (*Genista monpessulana*). Several transplanted populations of Santa Cruz tarplant occur in the non-native annual grasslands of Wildcat Canyon Regional Park. This introduced Santa Cruz tarplant population is within critical habitat designation (Federal Register: October 16, 2002 – Volume 67, Number 200). However, no routine maintenance projects have occurred in this region with known populations or habitat potentially suitable for this species. Nevertheless, for many years the District has been implementing various management actions at the Santa Cruz tarplant population site to enhance the primary constituent elements to improve habitat conditions for this species.

Large-flowered fiddleneck (*Amsinckia grandiflora*) normally occurs in inner coast range grasslands with steep slopes and sandy soils. The only District population was planted on a relatively small site in a non-native annual grassland ridgetop within Black Diamond

Mines Regional Preserve. Moreover, no routine maintenance projects have occurred in this region with known populations or habitat potentially suitable for this species.

Presidio clarkia (*Clarkia franciscana*) grows in grassland communities with serpentine soils. The only District occurrence is a large population on the serpentine prairie of Redwood Regional Park. However, no routine maintenance projects have occurred in this region with known populations or habitat potentially suitable for this species. Instead, the District has implemented various management actions at the serpentine prairie site to enhance the primary constituent elements to improve habitat conditions for Presidio clarkia.

Antioch Dunes evening primrose (*Oenothera deltoides* ssp. *howellii*) occurs on inland sand dunes. The only District occurrence is a small population on the Southwest side of Browns Island in Contra Costa County. However, no routine maintenance projects have occurred in this region or where known populations exist.

Pallid manzanita (*Arctostaphylos pallida*) occurs in chaparral communities with somewhat mesic soils and in coastal scrub, with an elevation range of 200-445m. These soils are generally thin, silica-rich shales. Large populations (>450 individuals) are found in Huckleberry Botanic Preserve and Sbrante Ridge Regional Preserve. About 20 planted pallid manzanitas occur in Tilden Regional Park, and a single plant is found in both Redwood Regional Park and Sibley Volcanic Regional Preserve. However, no routine maintenance projects have occurred in any area with known populations.

The Alameda whipsnake (*Masticophis lateralis euryxanthus*) typically inhabits District parks throughout Alameda and Contra Costa Counties with suitable chaparral, scrub, and oak savanna habitats. This species is closely associated with these uplands habitats but also occurs in riparian and stream corridors. Vast regions of District lands are excluded from critical habitat designation for Alameda whipsnake (Federal Register: October 3, 2000 – Volume 65, Number 192 and Federal Register: October 2, 2006 – Volume 71, Number 190). While 221 routine projects were completed within the distributional

range of the Alameda whipsnake, these projects involve various aquatic habitat types and often in mesic locations without the essential primary constituent elements to support this species. Furthermore, most of these maintenance activities have occurred in areas where we have not documented Alameda whipsnake and had minimal disturbance to suitable upland habitat.

Historically, Western snowy plover (*Charadrius alexandrinus nivosus*) and California least tern (*Sterna antillarum browni*) infrequently occurred and had very limited nesting on District properties. Western snowy plovers nesting attempts at Hayward Regional Shoreline were restricted to an event on Island 5 and one nest attempt on the basin levee. Similarly in 1990, only one nest attempt was documented by California least terns on the same small island at Hayward Regional Shoreline. However, after the District completed a habitat enhancement project on Island 5, California least terns have successfully nested every year since 2007 and appears to have established a stable colony. Correspondingly, on Island 5, Western snowy plover successfully nested in 2008 and each of the subsequent years. During the eleven year permit periods, only two routine maintenance projects were completed at Hayward Regional Shoreline. While these projects resulted in 0.04 acres of temporary and permanent wetland impacts, both projects were on levees at considerable distances from the island supporting Western snowy nests and the California least tern colony. In addition, the construction occurred during the non-nesting season with no disturbance to either species. As a consequence, none of the projects or associated routine maintenance activities impacted Western snowy nests or the California least tern.

The eastern portions of Alameda and Contra Costa Counties are the extreme northern extent of the San Joaquin kit fox (*Vulpes macrotis mutica*) range. This species typically occur in xeric upland habitats, predominantly in the open grassland and oak savanna. Since 1990 only eight San Joaquin kit fox have been documented on District lands with occurrences at Black Diamond Mines, Round Valley, Brushy Peak, and Vasco Caves Regional Preserves. Considering, San Joaquin kit fox are associated with xeric upland habitats, their extremely low density throughout Alameda and Contra Costa Counties,

and the routine maintenance projects occur in aquatic habitats with little disturbance to uplands, it is unlikely the project activities had a measurable effect or impact San Joaquin kit fox habitat.

Summary and Discussion

The proposed activities associated with District's routine maintenance activities including bank stabilization, maintenance and minor modifications of existing boat docks-marinas, installation and maintenance of existing clear-span bridges, replacement and upgrades of existing culverts, minor maintenance dredging of silt basins, and levee maintenance appear to meet the criteria described in the U.S. Army Corps of Engineers programmatic consultation with U.S. Fish and Wildlife Service and NOAA-National Marine Fisheries Service. The District currently manages 66 regional parks, recreation areas, wilderness lands, shorelines, preserves, and land bank areas that encompass over 102,000 acres in Alameda and Contra Costa Counties. Approximately 80 percent of District lands are protected and operated as natural parklands which provide potential habitat for 22 federally listed species. This eleven year Regional General Permit analysis illustrates that the District's routine maintenance projects had minimal direct, indirect, and cumulative effects to these species. In effect, most temporary disturbance and permanent aquatic loss were largely limited within California red-legged frog habitat, with little effect to other aquatic and upland habitats potentially supporting other species.

In addition, many routine maintenance projects that quantitatively resulted in permanent wetland loss, actually improve habitat conditions by restoring natural flow regimes, reducing stream and shoreline erosion, minimizing sediment loading, and maintaining open water conditions. Projects such as replacing culverts with armored fords or clear-span bridges have daylighted stream reaches, prevented scouring, and often improved the hydrological conditions and lotic habitat suitability for California red-legged frog, Delta smelt, steelhead, and Chinook salmon. Other projects such as the stabilization of

existing levees actually protect several shoreline restoration sites including Oro Loma Marsh, Cogswell Marsh, and Hayward Marsh which provide habitat for California clapper rail, California least tern (i.e. Island 5), Western snowy plover (i.e. Island 5), and salt marsh harvest mouse.

Moreover, the District have conducted these routine maintenance projects with a variety of best management practices to avoid and minimize potential adverse affects to listed species (Attachment C). They include but are not limited to the following: Within the distributional range of California red-legged frog and/or California tiger salamander work is performed between August 1 and October 31 or under dry site conditions to avoid potential impacts to aquatic habitats and vulnerable life stages. Similarly, to avoid and minimize potential impacts to California clapper rail, Western snowy plover, and/or California least tern, routine maintenance activities are conducted during the non-nesting season (September 1 to January 1).

On August 6, 1998 the U.S. Fish and Wildlife Service concurred with the US Army Corps of Engineers determination that the District's routine maintenance activities performed under the Regional General Permit are not likely to impact the California red-legged frog (enclosed). In addition, U.S. Fish and Wildlife Service critical habitat designation for California red-legged frog (Federal Register: April 13, 2006 – Volume 71, Number 71 and Federal Register: March 17, 2010 – Volume 75, Number 511) and critical habitat designation for California tiger salamander (Federal Register: August 23, 2005 – Volume 70, Number 162) includes a Special 4d rule exemption for existing routine ranching activities including maintenance of existing waterbodies and water sources created to provide water for livestock. Also on May 5, 1998 the District received a Technical Assistance from U.S. Fish and Wildlife Service that determined the effects of annual road grading and maintenance activities of existing roads and trails are not likely to result in the take of Alameda whipsnake (enclosed).

Within the District's Master Plan 1997, the "conservation of rare, threatened, and endangered species of plants and animals and their supporting habitats will take

precedent over all other activities”. Accordingly, District biologists are involved in the recovery of federally listed species. We have provided information and participated on the California red-legged frog Recovery Plan, developing the survey protocol, and critical habitat designations; California tiger salamander federal and state listing petitions and critical habitat designations; California clapper rail, salt marsh harvest mouse, and San Joaquin kit fox Recovery Plans; Alameda whipsnake Recovery Plan and critical habitat designation; steelhead, Chinook salmon and Santa Cruz tarplant critical habitat designations. In addition, we continue to conduct research and work with USFWS and NMFS biologists to assist in the conservation and recovery of steelhead, California red-legged frog, California tiger salamander, Alameda whipsnake, California clapper rail, California least terns, Western snowy plover, San Joaquin kit fox, Presidio clarkia, large-flowered fiddleneck, and Santa Cruz tarplant.

Because the District’s routine maintenance projects are extremely small scale and work activities are performed with best management practices (Attachment C) which includes very specific avoidance measures to minimize potential impacts to listed species and their habitats, we believe it is unlikely the District’s proposed routine maintenance activities would adversely affect these 22 federally listed species, any distinct population segment, evolutionary significant unit, or critical habitat designation.