



United States Department of the Interior
Fish and Wildlife Service

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

IN REPLY REFER TO:
I-1-00-F-176

August 16, 2000

Mr. Mark Capik
Chief, Planning Division
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814-2922

Subject: Formal Endangered Species Consultation on the Guadalupe River
Project, Downtown San Jose, California

Dear Mr. Capik:

This is in response to your March 10, 2000, request for formal consultation with the U.S. Fish and Wildlife Service (Service) on the Guadalupe River Project (Segments 3A-C) in downtown San Jose in Santa Clara County, California. Your request was received in our office on March 14, 2000. This document represents the Service's biological opinion on the effects of the action on western snowy plover (*Charadrius alexandrinus nivosus*) (snowy plover) in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act). We have determined that the project, as proposed, is not likely to adversely affect California red-legged frog (*Rana aurora draytonii*), salt marsh harvest mouse (*Reithrodontomys raviventris raviventris*), and California clapper rail (*Rallus longirostris obsoletus*), and these species are not addressed further in this document.

In addition to consulting with the Service, the U.S. Army Corps of Engineers (Corps) should coordinate with the National Marine Fisheries Service on project impacts to listed anadromous fish that occur within the project area.

This biological opinion is based on information provided in the March 3, 2000, biological assessment, a meeting between the Service and the U.S. Army Corps of Engineers (Corps) on December 7, 1999, and e-mail correspondence between Nina Bicknese of the Corps and Carmen Thomas of the Service on February 6, 2000, and February 28, 2000, field investigations, and other sources of information. A complete administrative record of this consultation is on file in this office.

Consultation History

- 6/99 The Corps submitted a Biological Assessment and biological data report for Segment 3C Phase I of the Guadalupe River Project in the city of San Jose and requested concurrence from the Service on a determination that the project was not likely to adversely affect listed/proposed threatened or endangered species.
- 6/23/99 The Service concurred with the findings of the Corps' June 1999, Biological Assessment and Biological Data Report (Service file no.: 1-1-99-I-1771).
- 8/30/99 The Corps requested an updated species list.
- 9/29/99 The Service provided the Corps with an updated species list (Service file no.: 1-1-99-SP-2052).
- 12/7/99 The Service met with the Corps to discuss species to include in the effects analyses for downtown San Jose (segments 3A and 3B) of the Guadalupe River Project. The Service recommended consideration of the red-legged frog, snowy plover, clapper rail, and harvest mouse.
- 2/6/00 The Corps requested comments from the Service on a draft Biological Assessment for segments 3A and 3B.
- 2/28/00 The Service provided comments on the draft Biological Assessment (Service file no.: 1-1-00-I-1450).
- 3/14/00 The Corps requested formal consultation with the Service on Phase 5, segments 3A and 3B, of the Guadalupe River Project in the city of San Jose (Service file no.: 1-1-00-I-1450).
- 5/25/00 The Corps requested an updated species list.
- 6/24/00 The Service provided an updated species list (Service file no.: 00-SP-1905).

BIOLOGICAL OPINION

Description of the Proposed Action

The Downtown Guadalupe River Flood Control Project (Guadalupe River Project) is a phased project authorized by Congress to provide 100 year flood protection to downtown San Jose. The Service previously consulted on the project in 1984 and concluded that

the project was not likely to adversely affect any listed species. Construction on the project began in 1992, but the third and final project phase was stopped in 1996 due to concerns regarding the adequacy of proposed mitigation and additional listings of threatened/endangered species. This consultation covers only the impacts of Phase 3 (Segments A-C) of the Guadalupe River Project in downtown San Jose. The Service recognizes however, that Santa Clara Valley Water District (SCVWD) operates the larger water control system (of which the Guadalupe River Project is part), which impacts western snowy plovers through occasional flooding of nesting habitat.

The Service has determined that the proposed action is not likely to result in adverse impacts to red-legged frogs, harvest mice, and clapper rails. This determination is based on current information presented to us by the project proponent (SCVWD and Corps). This information includes an analysis of the past and current condition of habitats suitable for these species at the outlet for this flood control system-Alviso and Guadalupe Sloughs-as well as the projected impacts with the operation of this project. However, the project proponents have proposed a monitoring strategy that will evaluate the future project operations and the effects-or lack thereof-to habitats suitable for harvest mice and clapper rails. The Service will evaluate the results of this monitoring and determinations for these species may be reevaluated in the future.

The proposed Guadalupe River Project (GRP) will be constructed along 2.6 miles of the Guadalupe River between Grant Street (just north of highway I-280) and I-880, in downtown San Jose, Santa Clara County, California (see Figures 1 and 2). The Service previously consulted on Segments 1 and 2 of the GRP between I-800 and Coleman Avenue (Service file no.: 1-1-99-I-1771), and construction was completed in 1996. The unconstructed portions of the GRP (the proposed project) are located between Coleman Avenue and Grant Street. The proposed project is divided into three segments, 3A, 3B, and 3C. Segment 3A is located between Coleman Avenue and New Julian Street, Segment 3B is located between New Julian Street and Park Avenue, and Segment 3C is located at the upstream end of the GRP between Woz Way and Grant Street. An underground culvert bypass will be constructed on the east bank in Segment 3A and part of the east bank of Segment 3B. Two inlets for the culvert will be near the West Santa Clara Street bridge, and a third inlet will be downstream from the Los Gatos Creek confluence with the Guadalupe River. The outlets for the culvert will be near the Coleman Avenue bridge. Bank armoring is proposed at the culvert inlets and outlets and under the New Julian bridge. Segment 3C is separated from segments 3A and 3B by the existing Woz Way-Park Avenue bypass reach. This bypass reach is not part of this project and therefore not considered in this biological opinion. Section 3C Phase 2 includes construction of an inlet, and section 3B includes construction of the outlet to the existing Woz Way to Park Avenue bypass. Construction of flood protection in segments 3A through 3C is scheduled for 2001-2002.

Segment 3A: There will be approximately 695 linear feet (lf) of west riverbank and river bottom armoring in Segment 3A using gabions to armor the toe of the slope and stone terraces to armor the river bank (Figure 2). A wheel-chair accessible ramp would be installed on the west bank armoring to allow pedestrian-trail passage under the Coleman Avenue Bridge. On the east bank, there will be approximately 745 lf of bank armoring. Gabions will armor the toe of the slope and a vertical retaining wall will armor the river bank. Approximately 200 lf of the east bank may also be armored with gabions at the New Julian Street Bridge to provide for a pedestrian undercrossing of the bridge. The river bottom will be armored with concrete cellular mattresses upstream and below the Coleman Avenue Bridge for 695 lf. The armored river bottom would contain a low-flow channel with 5 to 7 concrete check structures. The low flow channel with check structure design will use concrete sills with, logs, boulders, and gravel placed at grade and on top of the concrete cellular mattress-armored river bottom to concentrate low flows into the channel. The check-structure sills would be placed at spacing of 200 to 300 feet within the low-flow channel of the armored channel bed. Construction of the bottom armoring and the low flow channel check structures requires diverting the water from the work area. The outlet structures for the proposed bypass system will be located in Segment 3A near Coleman Avenue. The inlets and outlets of the proposed bypass system will remain closed with bulkhead retaining walls and the downtown Guadalupe River Project will not be made operational until SCVWD completes the Lower Guadalupe River Project.

Between 9 and 15 invert stabilization structures (small weirs) will be placed in the channel bed in the unarmored sections of Segments 3A and 3B between Coleman Avenue and Santa Clara Street. The footings of the invert stabilization structures will be constructed of concrete. Logs will be fastened to the top of the footings to create drops in grade between structures of one foot or less. Construction of the invert stabilization structures will require that water be diverted from the construction area. The invert stabilization structures and the previously mentioned low-flow channel check structures will be built using a front-end loader and backhoes. A trench approximately 3 to 4 feet deep by 2 feet wide will be excavated in the channel bed. Steel reinforcing will be placed within the framework, and concrete will be pumped through an overhead delivery system to avoid impacts on riparian vegetation growing on the banks of Segments 3A (and 3B). The concrete will be pumped from trucks at road crossings or at unvegetated areas on the top of the bank. After the concrete cures, the formwork will be removed, and suitable channel bed material will be used to backfill the trench.

Union Pacific Railroad (UPRR) bridges 3 and 4 will be removed, and it is assumed that bridge 4 will be replaced by others outside of this project. The Old Julian Street Bridge may also be removed. The sewer line that crosses the river under the New Julian Street Bridge will be removed and replaced with a line under the river on the downstream side of the bridge. The new sewer line will be constructed beneath the river using a sewer siphon system.

3A Recreational Trails: Recreational trails in Segment 3A include an 18-foot wide asphalt trail/maintenance road on the top of both the east and west banks from New Julian Street to Coleman Avenue. The eastern bank trail will cross under the New Julian Street Bridge with stairs on the upstream and downstream side of New Julian Street to allow pedestrian access under the bridge. The top-of-bank trail will continue downstream to the bank armoring near Coleman Avenue, where it descends and passes under the Coleman Avenue Bridge. On the western bank, the trail will cross under the New Julian Bridge and continue on top of bank to the armored bank area near Coleman Avenue. Here a 300-foot-long wheelchair-accessible ramp will cross under the Coleman Avenue Bridge to connect with the existing trail system in GRP Segments 1 and 2.

Segment 3B: There will be approximately 1,861 lf of riverbank armoring on the west bank, 2,231 lf of river bank armoring on the east bank, and 1,940 lf of river bottom armoring between West Santa Clara Street and Park Avenue. East bank armoring will include gabions at the toe of the slope and stone terraces on the slope. West bank armoring will include a vertical concrete retaining wall between 18 and 22 feet high. The river bottom will be armored with concrete cellular mattresses and contain a low-flow channel with check structures, as previously described. A new sewer line will be constructed under the armored channel bottom downstream from West Santa Clara Street. The outlet structure for the existing Woz Way to Park Avenue Bypass will be part of the Segment 3B construction. The outlet for this Bypass will also be covered with a bulkhead retaining wall to prevent operation of the GRP until the Lower Project is completed. A U.S. Geological Survey gaging weir upstream from the St. John Street bridge will be removed and replaced with an invert stabilization structure, which will be installed as described above and without impacts to existing shaded riverine aquatic habitat. The Saint John Street bridge may be demolished. If demolished, the bridge would be replaced with a pedestrian/maintenance bridge, which would cause disturbance to riverbed substrate and vegetation on both banks. Currently, there is a sewer line beneath the bridge. If the bridge is demolished, a replacement line would be constructed, using a sewer siphon system, beneath the river on the downstream side of the bridge.

3B Recreational Trails: On the east bank, the pedestrian trail/maintenance road will continue from the existing Woz Way to Park Avenue trail. There will be two 18-foot-wide trails between Park Avenue and Santa Clara Street, one top-of-bank trail, and another 6 feet above summer water level on top of the stone terraces. The top-of-bank trail will have stairs down to the river at Park Avenue, San Fernando Street, and West Santa Clara. On the west bank the trail will continue from the existing Woz Way to San Fernando and terminate in a switch-back ramp up to a pedestrian overlook.

Segment 3C Phase 2 (3CP2): There will be 1,250 lf of armoring on the west bank of the river between Woz Way and Grant Street, using gabions at the toe of the slope and rock

terraces on the bank. Approximately 730 lf of armoring will be constructed on the east bank between previous segment 3C Phase 1 work and Grant Street. This armoring includes gabions at the toe of the slope and stone terraces on the river bank. The river bottom will be armored with concrete cellular mattresses and concrete for 1,045 ft. and will contain a NMFS and Service-approved trapezoidal/boulder low-flow channel for fish passage. The inlet structure for the existing Woz Way to Park Avenue Bypass will be constructed on the west bank as part of this phase. A concrete weir will be included in the Woz-Way/Park Avenue bypass inlet. The inlet will remain closed with a bulkhead retaining wall until the Lower Guadalupe River Project is completed and the downtown GRP (this project) is operational.

3CP2 Recreational Trails: A trail system with a top-of-bank trail and a trail six ft. above the summer water level along the armored bank will be constructed on the west bank between Woz Way and I-280. A stairway and handicap access ramp will be constructed on the west bank upstream from the Woz Way bridge. An 18 foot wide trail will be constructed on the east bank between Woz Way and Grant Avenue, with an access point constructed downstream from Grant Street. This access point will include either stairs or a ramp.

Segment 3C Phase 3(3CP3): There will be a total of 1,833 lf of flood-training walls made of concrete or concrete masonry units in the Interstate 280 (I-280)/Route 87 interchange area. The flood-training walls will direct overbank flood flows from above the project into the river channel. On the east side of the river, 860 lf of flood-training walls will be constructed between the I-280 bridge abutment and Almaden Avenue. On the west bank of the river, 973 lf of flood-training wall will be constructed in the I-280/Route 87 interchange area. An additional 620 lf of earthen berm will also be constructed in this area. Wall and berm height will vary from 0.5 to 4.5 feet.

3CP3 Recreational Trails: An 18 ft. wide asphalt trail/maintenance access road will be constructed on top of both banks of segment 3A between New Julian Street and Coleman Avenue. In Segment 3B, there will be two trails on the east bank between Park Avenue and Santa Clara Street: a 12 ft. wide trail on top of the stone terraces, six feet above summer water level; and an 18 ft. wide trail/maintenance access road on top of the bank. On the west bank of Segment 3B, the existing Woz Way-Park Avenue trail will be extended under Park Avenue and terminate at the proposed pedestrian overlook.

Conservation Measures

The following measures have been proposed to minimize and avoid impacts to listed species. All conservation measures will be completed before or concurrent with construction work.

Downstream of the proposed project are a number of salt ponds owned and operated by Cargill Salt (A5-A12, see Figure 3). Under existing conditions, flows in Alviso Slough (the Guadalupe River flows into Alviso Slough just downstream of the city of San Jose) greater than approximately 6,400 cubic feet per second begin to overtop the west bank levee near the city of Alviso. The overtopping causes water to flow into Pond A8W. When water in Pond A8W reaches a depth of approximately 1.5 feet, it flows into Pond A8D. Snowy plovers nest in ponds A6 and A8D; nests in Pond A8D are currently at risk of inundation during flood events.

To minimize and avoid impacts to snowy plovers, Pond A8 will be pumped when snowy plover nests are at risk from inundation, or when water depth exceeds a maximum standard determined by the Service. In addition, project sponsors will monitor flood flows and surface water levels in Alviso Slough and evaporation pond A8D to determine whether changes occur as a result of the GRP construction. Data will be summarized and presented to the Service on a bi-annual basis. Monitoring methods for the evaporation pond will be approved by the Service prior to implementation.

Status of the Species

On March 5, 1993, the Pacific coast population of the western snowy plover (*Charadrius alexandrinus nivosus*) (snowy plover) was listed as threatened under provisions of the Endangered Species Act of 1973, as amended (58 **FR** 12864). In California, the western snowy plover has been classified by the California Department of Fish and Game as a "species of special concern" throughout all of California since 1978 and is likely to continue to be retained as such in the pending list revision (K. Hunting pers. comm. 1999). A detailed account of the taxonomy, ecology, and biology of the snowy plover is presented in the listing package (58 **FR** 12864) and critical habitat rule (64 **FR** 68508). Supplemental information is provided below.

Although the majority of snowy plovers are site-faithful, returning to the same breeding site in subsequent breeding seasons, some also disperse within and between years (Warriner *et al.* 1986, Stenzel *et al.* 1994). Birds occasionally nest in the exact location as the previous year (Warriner *et al.* 1986). Snowy plovers renest readily after loss of their eggs (Wilson 1980, Warriner *et al.* 1986). After losing a clutch or brood or successfully hatching a nest, plovers may renest at the same site or move up to several hundred miles to nest at other sites (Stenzel *et al.* 1994, Powell *et al.* 1997). Renesting occurs 2 to 14 days after failure of a clutch and up to 5 renesting attempts have been observed for a pair (Warriner *et al.* 1986). The first chick hatched remains in or near the nest until other eggs (or at least the second egg) hatch. The adult plover, while incubating the eggs, also broods the first chick. Plover chicks are precocial, leaving the nest within hours after hatching to search for food. They are not able to fly for approximately 4 weeks after hatching; fledging requires 28 to 33 days (mean 31 days) (Warriner *et al.* 1986).

Overall, western snowy plover numbers have declined on the U.S. Pacific coast over the past century. Habitat degradation caused by human disturbance, urban development, introduced beachgrass (*Ammophila* spp.), and expanding predator populations have resulted in a decline in active nesting areas and in the size of the breeding and wintering populations (58 FR 12864). In the south Bay, water diversion/impoundments, salt pond operations, impaired water quality, and natural factors (*e.g.* inclement weather) continue to affect the quality and quantity of snowy plover habitat (58 FR 12864). The reasons for decline and degree of threats vary by geographic location.

Water diversion and impoundment of creeks and rivers may negatively affect snowy plover habitat by reducing sand delivery to beaches and degrading water quality. Water diversions are a major threat to snowy plovers when they impair hydrologic processes (such as migration of creek and river mouths) that maintain open habitat at river and creek mouths by retarding the spread of introduced beachgrass (*Ammophila* spp.) and other vegetation. Water diversion, impoundment or stabilization activities could include construction of dams and irrigation, flood control and municipal water development projects.

Salt ponds of San Francisco Bay and San Diego Bay, which are filled and drained as part of the salt production process, provide breeding and wintering habitat for snowy plovers. Dry salt ponds and unvegetated salt pond levees are used as plover nesting habitat. Ponds with shallow water provide important foraging habitat for plovers. However, drying and refilling of ponds during the nesting season can first attract nesting plovers to the area and then destroy the nests due to flooding. Also, human disturbance resulting from maintenance activities associated with the operation of commercial salt ponds (*i.e.*, levee reconstruction and maintenance of facilities) can result the loss of snowy plovers and alteration or disturbance of their habitat. If conducted during the snowy plover breeding season, reconstruction of salt pond levees could destroy snowy plover nests. Maintenance activities which are conducted by vehicles, on foot, or through the use of dredging equipment could result in direct mortality or harassment of snowy plovers (see dredging, pedestrian and motorized vehicle sections).

Many areas used as habitat by snowy plovers contain channelized streams or outfalls receiving run-off from urban, industrial and agricultural areas. Non-point sources of water pollution (including hydrocarbons, heavy metals, and commercial and household chemicals) could end up at coastal beaches used as plover foraging areas. In 1995, three dead male plovers (all banded and local breeders) were found in an area containing local outfalls, including an outfall connected to a sewage treatment plant at Monterey Bay. By the beginning of the next breeding season, it was discovered that another male snowy plover from this area disappeared and possibly died. One of the birds was analyzed through necropsy and found to have an enlarged liver, but it could not be determined whether there was a relationship between the mortality and the outfall (Point Reyes Bird Observatory unpubl. data).

Critical habitat was established for the snowy plover on December 7, 1999. In California, a total of 19 areas along the coast were designated as critical habitat areas. No critical habitat was designated for Santa Clara County where the project occurs.

Environmental Baseline

It is not known whether the snowy plover historically nested in San Francisco Bay prior to the construction of salt evaporator ponds beginning in 1860 (Ryan and Parkin 1998). However, snowy plovers have wintered on San Francisco Bay since at least the late 1800s, as indicated by a specimen dated November 8, 1889, in the California Museum of Vertebrate Zoology (Grinnell *et al.* 1918). Surveys conducted during 1977-1980 estimated 1,593 adult snowy plovers along coastal California (Page and Stenzel 1981). As of 1980, the snowy plover had disappeared from significant parts of its coastal California breeding range. It was absent from previously identified breeding beaches in San Diego, Los Angeles, Orange, Ventura, Santa Barbara, Santa Cruz, and Sonoma counties. Subsequent coast-wide surveys by Point Reyes Bird Observatory in 1989 and 1991 indicated a further decline in numbers of breeding adult plovers during the decade after the 1977-1980 survey. The decline was approximately 40 percent in San Francisco Bay. The most recent coast-wide survey was conducted in 1995, and suggested a further 17.3 percent decline in the number of breeding plovers. This constitutes an overall decline of 21 percent since the initial surveys of 1977-1980. Because San Francisco Bay was not surveyed in 1995, it is not known whether numbers there have changed from 1991 levels. When last surveyed in 1991, just over 200 adults were counted during the breeding season in San Francisco Bay. Almost all were in salt evaporation ponds in south San Francisco Bay.

Snowy plovers were recorded nesting on salt evaporation pond levees in Alviso as early as 1947 (Smith and Smith 1947). Breeding was confirmed in the Alviso salt ponds annually during the 1950s (Linsdale 1951, Sibley 1952, Cogwell 1956, Williams 1957, Cutler and Pugh 1959), with a high of 14 nests found in 1955 (Smith 1955). In 1971, Gill (1972) found nesting snowy plovers on the Knapp Gun Club property near the mouth of Alviso Slough. Page and Stenzel (1979) recorded snowy plovers in each of the three salt evaporation ponds bordering the south side of Alviso Slough (A6, A7, and A8).

Nesting snowy plovers have recently been recorded in salt evaporation ponds A6 and A8 (Ryan and Parkin 1988) (Figure 3). Snowy plovers were observed in pond A6 every year between 1986 and 1994; breeding was confirmed during five of the nine years. Snowy plovers were also observed almost annually in pond A8 between 1981 and 1997; breeding was confirmed during nine of the 11 years. The San Francisco Bird Observatory did not conduct surveys on pond A8 in 1989 or 1993, however, incidental observations detected snowy plovers on the pond in both years (USACOE 2000). In

addition, H.T. Harvey and Associates surveyed pond A8 in 1998 and 1999, and observed nesting snowy plovers both years (USACOE 2000).

Snowy plovers have occasionally been observed foraging in the diked evaporation ponds on the northeast side of Alviso Slough (ponds A9-A12) by birders. However, these ponds usually contain water year-round, making them unlikely places for plovers to nest. The only recent nesting record in the vicinity of these evaporation ponds consists of one to two pairs that have nested in some years in a small impoundment between pond A12 and the railroad tracks, north of the Alviso marina (USACOE 2000).

Effects of the Proposed Action

Construction of the GRP, as currently described, will not result in direct effects on the western snowy plover. However, indirect effects to snowy plovers nesting in the Alviso salt ponds (especially pond A8W and A8D), may result from flood events. Because the salt ponds are downstream of the GRP, they remain within the action area as defined by 50 CFR § 402.02. Under existing conditions, flows in Alviso Slough greater than approximately 6,400 cubic feet per second (cfs) begin to overtop the west bank levee near the city of Alviso. The overtopping causes water to flow into Pond A8W. When the water depth in Pond A8W reaches 1.5 feet, it then flows into Pond A8D. Plovers currently nest in Pond A8D but have not recently nested in Pond A8W.

Any flooding that occurs during the snowy plover breeding season (mid-March through mid-September) may reduce or eliminate breeding success in Pond A8D for that year. The minimization measures are fully described in the Project Description section. In brief, if Pond A8D is flooded after the initiation of this project, the project proponents will pump Pond A8D when the water level exceeds a maximum depth determined by the Service, or when snowy plover nests are at risk from inundation. In addition, the project sponsors will monitor flood flows and surface water levels in Alviso Slough and in evaporation pond A8D. The goal of the monitoring is to determine whether flood frequency or inundation period within pond A8D changes as a result of the GRP. The monitoring program is described in the Biological Data Report (USACE 2000), and will be approved by the Service prior to being implemented.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Cumulative effects of the proposed project on snowy plovers will include potentially compromised levee strength surrounding Pond A8, due to increased velocities in Guadalupe River and Alviso Slough. Many of the channel improvements proposed by this project consist of a hard surface, such as concrete or riprap. This 'hardscape' in the bed and on the banks of a river increases flow velocities, which places downstream levees at greater risk of damage and failure.

Conclusion

After reviewing the current status of western snowy plovers, the environmental baseline for the action area, the effects of the proposed Guadalupe River Project in downtown San Jose and the cumulative effects, it is the Service's biological opinion that the project, as proposed, is not likely to jeopardize the continued existence of this species. Critical habitat for the western snowy plover has been designated in Humboldt, Sonoma, Marin, San Mateo, Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, and San Diego counties, however, this action does not affect that area and no destruction or adverse modification of critical habitat is anticipated.

INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are non-discretionary, and must be implemented by the agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take

The Service does not anticipate the proposed action will incidentally take any western snowy plover adults, chicks, or eggs. Therefore, no take of snowy plover adults, chicks, or eggs is authorized. This project does not occur within designated critical habitat for western snowy plover; therefore none will be impacted.

Effect of the Take

The Service has determined that this level of anticipated take is not likely to result in jeopardy to the listed wildlife species in this opinion or result in destruction or adverse modification of critical habitat.

Reasonable and Prudent Measures

The Sacramento Fish and Wildlife Office (SFWO) believes the following reasonable and prudent measure is necessary and appropriate to minimize incidental take of the western snowy plover:

The potential for harassment, harm, injury and mortality to the western snowy plover must be minimized.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of ESA, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are nondiscretionary.

1. The Corps shall assure that a monitoring plan of habitat change is developed and approved by the Service and implemented prior to construction of the Downtown Guadalupe River Project. *WHAT DOES @ MEAN*
2. The Corps shall assure that levees around salt ponds A8W, A8D, A7, A6, A10, A11, and A12 are inspected for weakness during flood conditions.
3. If the previously mentioned levees show any sign of weakness or fail, the Corps shall take immediate remedial measures, in consultation with the Service.
4. Any installation of pumps to salt ponds A8W or A8D shall occur outside the sensitive period for western snowy plovers of March 1 through September 30. *MOBILE PUMP CAN BE USED?*

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take on a species that might result from the proposed action. The Service believes that no (0) adults, chicks, or eggs of western snowy plovers will be incidentally taken. If, during the course of the action, this level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

Reporting Requirements

The SFWO is to be notified within three working days of the finding of any dead listed wildlife species or any unanticipated harm to the species addressed in this biological opinion. The Service contact person for this is Karen J. Miller, Chief, Endangered Species Division at (916) 414-6620.

The Corps must provide the Service with annual reports to describe the progress of implementation of all the commitments in the Conservation Measures and Terms and Conditions sections of this biological opinion. The first report is due by the end of the second calendar year following initiation of project construction.

The Corps must require the ^{SCWOP}city of San Jose to report to the ^{CORPS}Service immediately any information about take or suspected take of listed wildlife species not authorized in this opinion. The Corps must notify the Service within 24 hours of receiving such information. Notification must include the date, time, and location of the incident of the incident or of the finding of a dead or injured animal. The Service contact person is Cay C. Goude, Assistant Field Supervisor for Endangered Species and Environmental Contaminants, at (916) 414-6700. 27

Any contractor or employee who during routine operations and maintenance activities inadvertently kills or injures a listed wildlife species must immediately report the incident to their representative. This representative must contact the California Department of Fish and Game immediately in the case of a dead or injured western snowy plover. The California Department of Fish and Game contact for immediate assistance is State Dispatch at (916) 445-0045.

The U.S. Fish and Wildlife Service Regional Office in Portland, Oregon, must be notified immediately if any dead or sick listed wildlife species is found in or adjacent to pesticide-treated areas. Cause of death or illness, if known, also should be conveyed to this office. The appropriate contact is Richard Hill at (503) 231-6241.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of ESA directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and data bases.

1. To assure the long-term viability of snowy plover populations, their breeding habitat should be monitored and managed in a systematic, ongoing fashion to measure progress towards recovery and identify management and protection efforts that are needed. Land managers should recognize that components of breeding habitat include: areas where plovers prospect for nesting sites, make scrapes, lay eggs, feed, rest, and rear broods. Breeding habitat also includes travel corridors between nesting, resting, brood-rearing, and foraging areas.
 - a. The number of breeding adults should be recorded on an annual basis.
 - b. Productivity, expressed as young fledged per male, should be recorded annually to minimize the banding of birds.
 - c. Annual survival rates of adults should be recorded annually.

All of the above data should be reported to the SFWO.

2. Future projects should avoid development that will destroy or degrade western snowy plover breeding/foraging habitat.
 - a. Construction of rock jetties should be avoided when it would result in eroded beaches and sandspits. Inlet stabilization and breaches of beach or dune habitat should also be discouraged if these actions would interfere with natural inlet formation, closure, and migration processes which maintain availability of plover habitat.
 - b. Sand removal and dredging should be avoided when they would alter the natural patterns of erosion and deposition of coastal dunes. Water diversion and impoundment of creeks and rivers should be avoided when they would reduce sand delivery to beaches or

interfere with maintenance of open habitat at river and creek mouths.

- c. Coastal ponds and playas, including salt ponds, should be enhanced and created to improve breeding habitat. Significant opportunities for management of nesting plovers currently exist within San Francisco Bay salt ponds. However, salt ponds should only be created or enhanced at existing salt pond habitat; they should not be used for mitigation or compensation of coastal beach-dune or other snowy plover habitats.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION--CLOSING STATEMENT

This concludes formal consultation on the action(s) outlined in the (request or reinitiation request). As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals that the agency action may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Please contact Ken Sanchez of this office at (916) 414-6625, if you have any questions. If you have any questions regarding wetlands, contact Mark Littlefield at (916) 414-6580.

Sincerely,



Cay C. Goude
Acting Field Supervisor

Enclosures

Mr. Mark Capik

16

cc: NMFS, Santa Rosa, CA
EPA-Region IX, San Francisco, CA
CDFG, Region III, Yountville, CA
Santa Clara Valley Water District, Sunnyvale, CA

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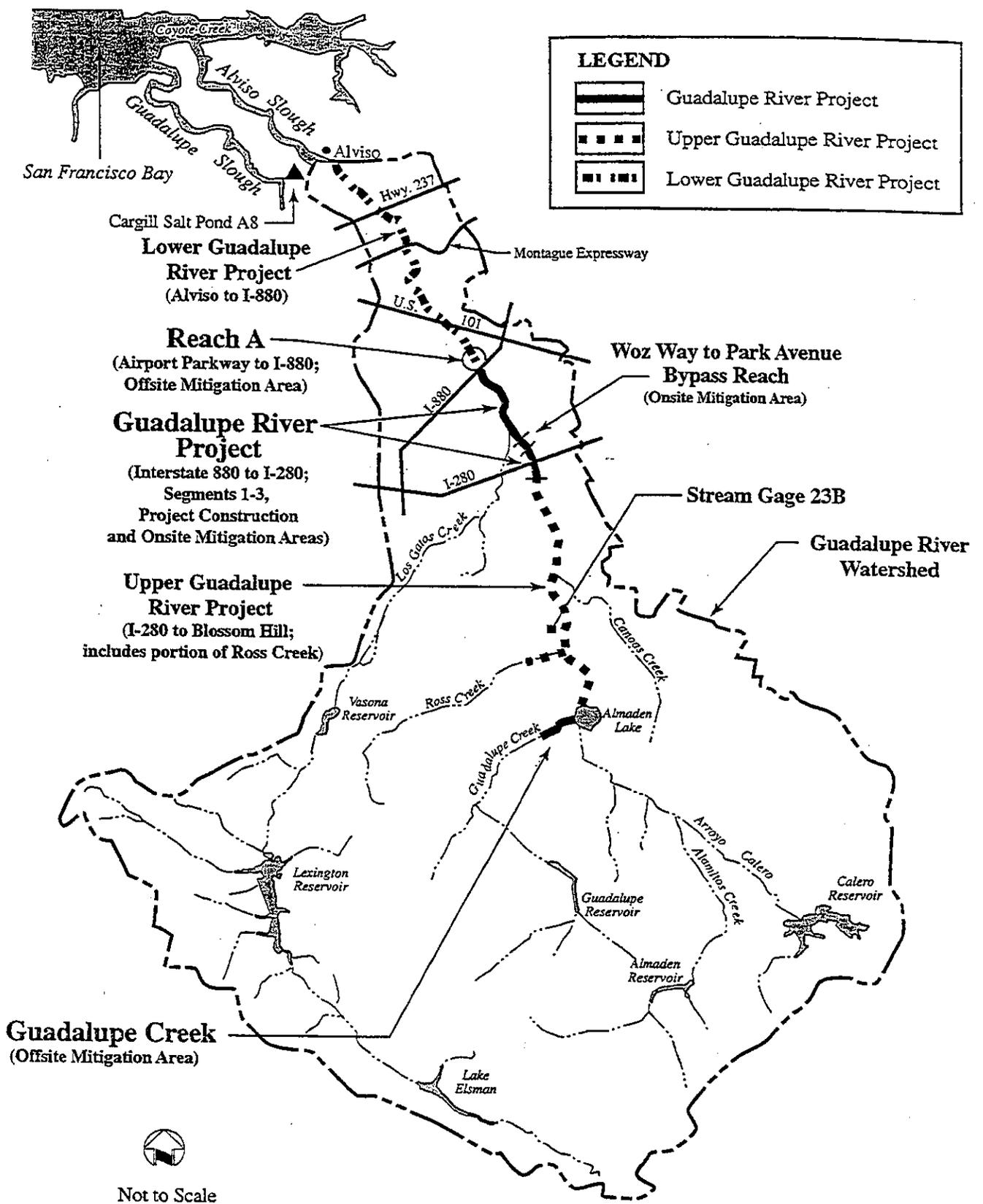


Figure 1 Guadalupe River Watershed Including Project Construction and Mitigation Areas

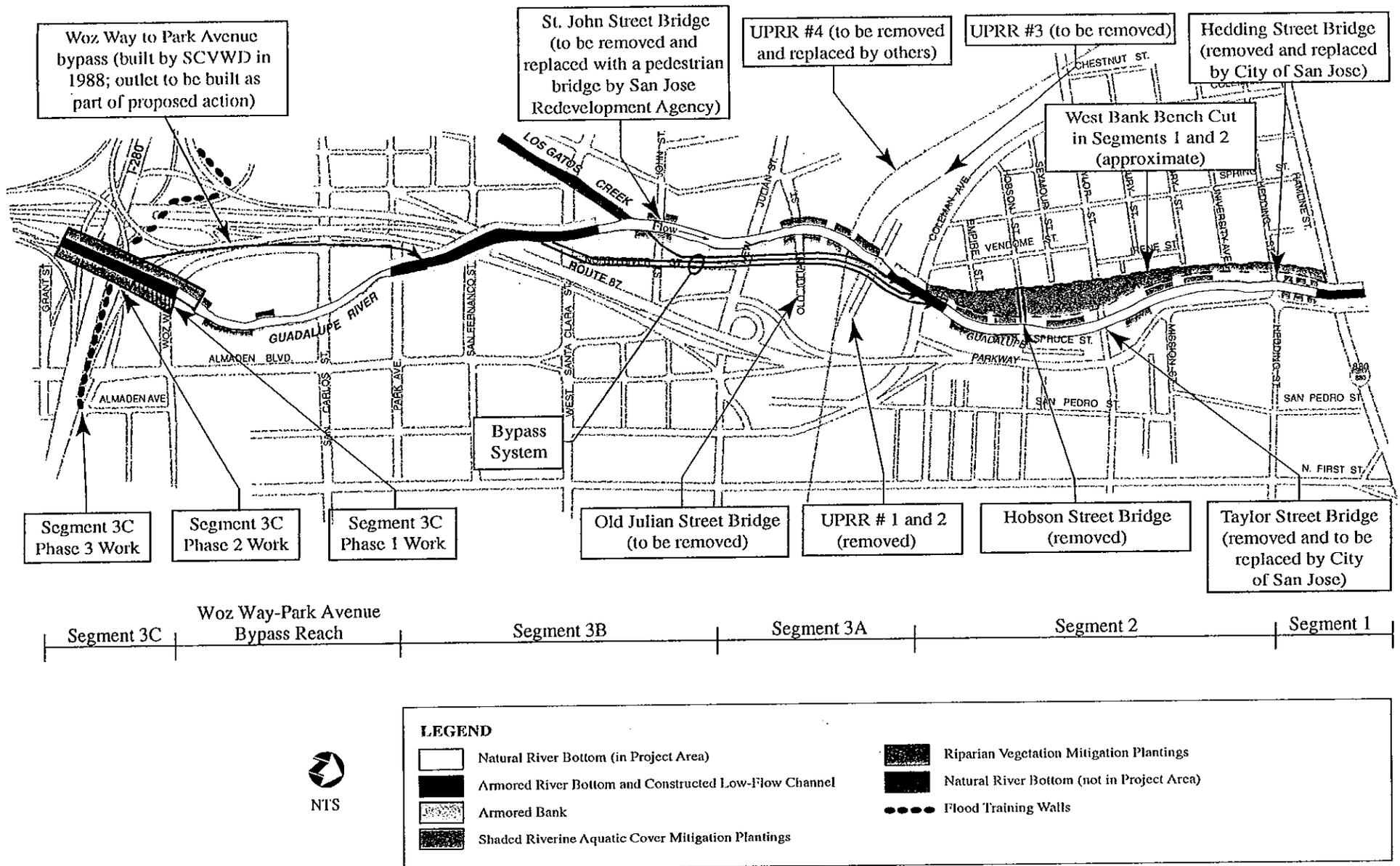


Figure 2
Guadalupe River Project with Proposed Action
Flood Protection and Onsite Mitigation Components

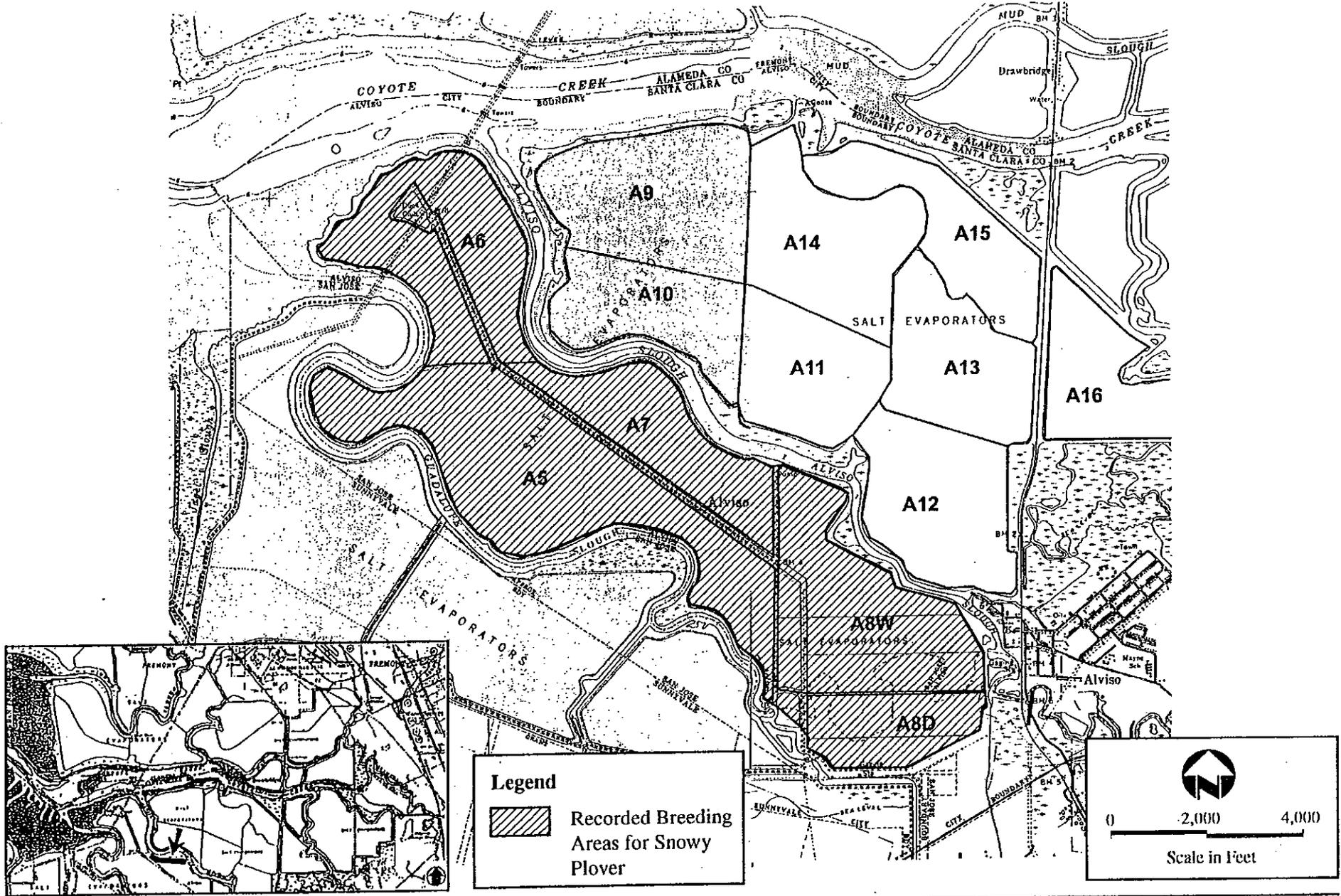


Figure 3
Recorded Breeding Areas for Western Snowy Plover -
Lower Guadalupe River/Alviso Slough Area