
San Francisco District

PUBLIC NOTICE

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Response Required By: July 23, 2001

Regulatory Branch
333 Market Street

San Francisco, CA 94105-2197 Permit Manager: Victoria R. Alvarez Phone 415-977-8472

1. **INTRODUCTION:** The California Department of Transportation (Caltrans) District 4, 111 Grand Avenue Oakland, 94623, has applied for a Department of the Army permit to permanently fill 1.14 acre of wetland habitat and temporarily impact 0.48 acre of wetlands and 0.56 acre of waters of the United States at four sites adjacent to State Route 84 (Bayfront Expressway) located in San Mateo County, California. The fill would result from the widening of State Route 84 between Marsh Road and the Dumbarton Bridge (Figure 1). Areas within Corps jurisdiction occur at six discrete sites along the project limits (Figure 2). The work would impact areas within Corps jurisdiction at sites 1, 4, 5 and 6 (Figure 2). Project impacts at the four sites include: Site 1: permanent impacts to 0.03 acre of salt marsh and temporary impacts to 0.3 acre of salt marsh habitat, 0.26 acre of mudflat and 0.25 acre of open water (Figure 3); Site 4: permanent impacts to 0.68 acre of freshwater marsh habitat and temporary impacts to 0.04 acre of freshwater marsh habitat (Figure 4); Site 5: permanent impacts to 0.35 acre of salt marsh habitat and temporary impacts to 0.09 acre of salt marsh habitat and 0.05 acre of mudflat (Figure 5); and Site 6: permanent impacts to 0.08 acre of freshwater marsh habitat and temporary impacts to 0.09 acre of freshwater marsh habitat (Figure 6). This application is being

processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act (33 U.S.C. 403).

2. **PROJECT PURPOSE:** Currently motorists on the western approach to the Dumbarton Bridge (Bayfront Expressway, Marsh Road, Willow Road and University Avenue) experience significant traffic congestion and delays. The purpose of this project is to relieve existing and projected traffic congestion by upgrading existing non-standard features and improving intersection geometrics.

3. **PROJECT ALTERNATIVES:** The Applicant described the proposed project with various design alternatives and the no-build alternative.

Proposed Project: The proposed project calls for widening of State Route 84 along its present alignment. This requires widening of the westbound and eastbound roadways. State Route 84 from Marsh Road to Willow Road will be widened from 4 to 6 lanes and shoulder widths increased to 10 feet. From Willow Road to the Dumbarton Bridge standard 10-foot shoulders will be constructed. Currently there are no shoulders. The project also includes widening of Willow Road and University

Avenue to improve intersection geometrics operation. A permanent concrete safety barrier will also be constructed to replace the existing temporary concrete barrier.

Rather than describing specific project alternatives, the Applicant provided an explanation as to why alternatives, other than the proposed project and the no-build alternative, were not explored. This discussion is provided below:

Site 1: Site 1 is located on the north side of Route 84 just west of the PG&E substation (Figure 7 Plan Sheet 12 and 13). In order not to impact this site it would be necessary to realign the roadway to the south. This would also require the realignment of the existing bike path further to the south. The right of way line limits the amount of realignment in the southerly direction. A salt evaporation pond lies to the south of Route 84 and would be impacted by the realignment of the roadway.

Site 4: Site 4 is located adjacent to Route 84 along the south side (eastbound direction) of the roadway. It lies between Chilco Street and Raychem Drive longitudinally, and between Route 84 and the Raychem Corporation parking lot area (Figure 7 plan sheets 4-7). In order not to impact this site it would be necessary to realign the roadway to the north. This in turn would also require the realignment of the existing bicycle path further to the north. The right of way line limits the amount of realignment in the northerly direction. This alternative would increase traffic impact during construction due to additional construction staging, disrupt bike path usage, as well as increase project costs.

Site 5: Site 5 is located on the east side of University Avenue from the SPRR train tracks to Route 84 (Figure 7 plan sheets 11 and 17). In order not to impact this site it would be necessary to realign University Avenue to the west towards the Ravenswood Triangle. There may be an impact to the Ravenswood Triangle. This realignment

would need to begin before the train tracks in order to produce a smooth transition. This alternative would also negatively impact traffic during construction due to construction staging as well as increase project costs.

Site 6: Site 6 is located on the south side of Route 84 (eastbound direction), it lies adjacent to Route 84 between Willow Road and University Avenue, just east of the pumphouse (Figure 7 plan sheet 10 and 11). In order not to impact this site it would be necessary to shorten the right turn pocket from eastbound Route 84 to Southbound University Avenue. The proposed project alternative right turn pocket is 126 meters long, this alternative would shorten the right turn pocket to 50 meters long. This would then also shorten the amount of south bike path realignment. Therefore the toe of slope from the bike path embankment would miss the jurisdictional wetlands area in the Ravenswood Triangle.

The Applicant provided additional information regarding design considerations that have been included in the proposed project what would further minimize impacts to jurisdictional wetlands. These include:

1. The reduction of median shoulder widths, thereby minimizing impacts to wetland areas alongside the roadway.
2. The maximization of embankment side slopes (1:2 vertical:horizontal) rather than using flatter side slope embankments (1:3 or greater).
3. Minimization of superelevation correction applied to curves thereby decreasing the amount of embankment material therefore reducing the impact to jurisdictional wetlands. Instead a standard 2% roadway crown cross slope (minimum allowed) has been applied.

4. Placement of temporary fencing around wetlands and other sensitive habitats to limit encroachment.

The Applicant also states that temporary impacts to wetlands will be restored by lightly grading then seeding affected areas and permanent impacts will be restored at 2 to 1 ratio. See proposed mitigation, below.

No-Build Alternative: The No-build Alternative was rejected because it would not upgrade the existing nonstandard features of Route 84 and would not address the current or projected traffic volumes, resulting in increased congestion and delays to the motorist.

4. PROJECT DESCRIPTION: The project consists of widening State Route 84 (Bayfront Expressway) from a four-lane highway to a six-lane highway with standard 10 foot shoulder widths. The widening will begin at Marsh Road intersection and terminate at the western terminus of the Dumbarton Bridge. A permanent concrete barrier will replace the existing Temporary Railing Type K that currently occupies the median. In addition the existing south Class 1 Bike Path will be extended at the request of San Francisco Bay Conservation and Development Commission (BCDC) approximately 1,115 feet to Ravenswood Pier. This new path will have 2-foot dirt shoulders and an 8-foot paved traveled way. The southern approaches at Willow road and University Avenue will also be widened from the Southern Pacific Railroad train tracks to State Route 84. The Raychem Undercrossing at post mile 27.6 will be widened in order to accommodate the widening of State Route 84. The undercrossing will be widened approximately 15 feet on the north side and 23 feet on the south side. Excavation will be required for the length of the project. The excavated areas will be filled with imported borrow and lightweight fill. All excavated material will be disposed of at an off-site location outside the Corps' jurisdiction.

5. EXISTING SITE CONDITIONS:

The majority of area within Corps jurisdiction that would be permanently affected by the project is freshwater wetland habitat (0.68 acre) and non-tidal salt marsh (0.46 acre). Temporary impacts in Corps jurisdiction include salt marsh (0.44 acre), mudflat (0.31 acre), freshwater marsh (0.04 acre) and open water (detention basin) (0.25 acre).

Saline Emergent Wetlands: Saline emergent wetlands include approximately 1.13 acres within the project site with the greatest concentration occurring along the eastern side of University Avenue (Figure 7). At this location the wetland is along the centerline of the drainage ditch and approximately 14 feet wide and 1900 feet long. The wetland is dominated by pickleweed (*Salicornia virginica*). The wetland habitat within the drainage ditch is described by the Applicant as marginal with limited habitat value because it is patchy, isolated by the roadway and other urban development and disturbed by roadside runoff. However, the wetland is connected via culvert to a more substantial area of saline emergent wetland that provides suitable habitat for numerous wetland species.

A second saline emergent wetland is located on the western site of SR 84 (Figure 7). The wetland is part of a detention basin, which separates the salt ponds from the freeway. The wetland is approximately 1100 feet long and 27 feet wide. This wetland closely resembles the saline emergent wetland that runs along University Avenue in vegetation and habitat value, with the exception that the wetland is isolated and not connected to a larger expanse of higher value wetland.

The saline emergent wetlands supports a high diversity of wildlife. These wetlands provide food, cover, nesting and roosting habitat for a variety of bird, mammal, reptile, and amphibian species.

Saline emergent wetlands within the project boundary are considered by the Applicant to be of minimal habitat value because they are subject to pedestrian traffic that may include bicycles and dogs. There is also a moderate amount of refuse interspersed throughout the wetlands. The wetlands along University Avenue are also inundated by surface runoff from the adjacent roadway. This water then drains via two culverts at the northern and southern portion of the drainage ditch. These culverts effectively isolate the wetland from the larger section of higher value wetland habitat to the south. Because of the disturbed, patchy and isolated aspect of the vegetation, wildlife occurring there would most likely be transients.

Freshwater Emergent Wetlands: The freshwater emergent wetlands at the project site include approximately 0.2 acres. These sites are located along the eastbound side of the Bayfront Expressway, extending from the intersection of Chilco Road and the Expressway for about 2400 feet (Figure 7). The dominant vegetation is narrow leaf cattail (*Typha angustifolia*) and rabbitfoot grass (*Polypogon monspeliensis*). The wetland is bordered by invasive weedy upland plant species on the Bayfront Expressway side and commercial development (parking lots) on the other. The boundary between wetland and weedy, upland species is abrupt.

The freshwater wetlands on the project site are surrounded by developed areas including barren/urban and commercial development. The narrow strip of wetland vegetation does not provide suitable habitat for species normally associated with freshwater emergent wetland. The wildlife species present here are primarily common widespread species or species more typically associated with urban habitat such as western toads (*Bufo boreas*), fence lizards (*Sceloporus occidentalis*), gopher snakes (*Pituophis melanoleucus*) and common garter snakes (*Thamnophis* spp.). Bird species include wrentits (*Chamaea fasciata*),

bushtits (*Psaltriparus minimus*) and plain titmouse (*Parus inornatus*). Mammal species associated with the project area freshwater wetlands includes transients such as striped skunk (*Mephitis mephitis*), raccoons (*Procyon lotor*), opossums (*Didelphis virginiana*) and feral house cats.

Ruderal/Urban Habitat: Weedy, urban habitat within the project boundary consist of approximately 28.93 acres. This habitat extends from Marsh Road to the beginning of the Dumbarton Bridge and occurs on both the east and westbound sides of the Expressway. The greatest concentration of urban habitat occurs adjacent to the freshwater wetland described above. Throughout the rest of the project site, the habitat can be described as weedy. The composition of species include a mix of invasive species such as slender wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), foxtail chess (*Bromus madritensis*), yellow star thistle (*Centaurea solstitialis*) and burclover (*Medicago polymorpha*). This area is highly disturbed as it is routinely mowed and weeded.

The weedy, urban habitat provides foraging habitat for species including brewer's blackbird (*Eupagus cyanocephalus*), mourning dove (*Zenaidura macroura*) and burrowing owls (*Athene cunicularia*). Other wildlife species that may occupy this area include California ground squirrel (*Spermophilus beecheyi*), pocket gophers (*Thomomys* spp.) and western harvest mouse (*Reithrodontomys megalotis*).

Shrub/Water Habitat: Shrub/Water is a transitional area between shrub and aquatic habitat. The shrub/water habitat is created by the proximity of the urban habitat and freshwater emergent wetland described above. The habitat type in the project area that fits this category is located along the east bound side of the Bayfront Expressway, extending from the intersection of Chilco Road and the Bayfront Expressway for about 2400 feet. The dominant shrub is Moporum (*Myoporum laetum*) with weedy

understory species. The shrub/water habitat within the project site is bordered by the commercial/industrial development. Species utilizing this habitat are in the same category as the species found in the freshwater emergent wetland and weedy, urban habitat and may include Norway rat (*Rattus norvegicus*), house mouse (*Mus musculus*), rock dove (*Columba livia*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*) and northern mocking bird (*Mimus polyglottos*).

Urban/Industrial Habitat: Commercial, industrial, residential, and recreational land uses predominate in areas immediately adjacent to the project site. These areas are low in wildlife habitat value because they are isolated from adjacent habitats and are frequently disturbed by maintenance operations, however, they do provide limited cover and resources to birds and mammals adapted to urban environments.

6. STATE APPROVALS: Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must obtain a State water quality certification or waiver before a Corps permit may be issued. The applicant was issued a conditional Water Quality Certification and Waiver of Waste Discharge Requirements for the project dated May 10, 2001 [File No. 2178.07 (HTK)] by the San Francisco Bay Regional Water Quality Board.

Those parties concerned with any water quality issues associated with this project should contact the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, by the close of the comment period of this Public Notice.

7. PRELIMINARY ENVIRONMENTAL ASSESSMENT: The Corps of Engineers has assessed the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of

1969 (Public Law 91-190), and pursuant to the Council on Environmental Quality Regulations, 40 CFR 1500-1508, and Corps of Engineers Regulations, 33 CFR 230 and 325, Appendix B. Unless otherwise stated, the Preliminary Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers. The information used in the preparation of this Preliminary Environmental Assessment is on file in the Regulatory Branch, Corps of Engineers, 333 Market Street, San Francisco, California.

The Preliminary Environmental Assessment resulted in the following findings:

Impacts To Physical Environment:

Substrate: The proposed project would result in the excavation of approximately 4,327 cubic yards of substrate and a discharge of approximately 7,011 cubic yards of fill into waters of the U.S. (1.14 acre). Substrates within the project area also include a mixture of bay mud with gravel, sand, and other deposits imported to the site during construction of the Bayfront Expressway in 1984. Historically the area was a tidal marsh and the soil was a saturated clay, typical of tidal flats in the San Francisco Bay area. Impacts to substrate at each of the impact sites is as follows: 1) **Site 1:** excavation of 54 cubic yards within the temporary impact areas and the placement of 170 cubic yards of fill material in the permanent impact areas; 2) **Site 4:** excavation of 5 cubic yards within the temporary impact area and 1915 cubic yards of material from within the wetland area 3) **Site 5:** excavation of 25 cubic yards of material from the wetland and 75 cubic yards in other waters as part of the temporary impact area; 4) **Site 6** no excavation will occur at this site

Erosion and Sedimentation:

Construction of the proposed project may result in a slight, temporary increase in erosion and sedimentation at the project site as a result of excavation and exposure of substrates during and immediately following project construction. To minimize erosion and sedimentation during project construction best management practices (BMP) will be implemented by the Applicant. Erosion and Water Pollution Control Plans will be incorporated into the project plans. These plans will provide water quality protection during and after construction as necessary. BMPs include the placement of temporary barrier fencing and silt fencing to provide protection to environmentally sensitive areas, water bodies as well as sedimentation prevention. Other temporary measures include various drain inlet protection method such as sediment bags, rock bags, flexible dikes, and straw bales, a temporary concrete washout facility, temporary cover for stockpiled material and temporary construction entrance/exit protection details.

Permanent erosion control measures will consist of hydroseeding all disturbed areas and placement of erosion control blankets in unlined ditches and surrounding drain inlets. Energy dissipaters and rock slope protection will also be incorporated as part of the hydraulic design to reduce scour and sedimentation.

The Applicant has also noted that a Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Plan will be prepared by the contractor hired to construct the project. All applicable special provisions and specifications as related to SWPPP and Water Pollution Control Plan will be included by the contractor.

Currents, Circulation, and Drainage

Patterns: The Applicant expects that the project will not significantly impact currents, circulation and drainage patterns in the project area. The Applicant explains that the general drainage pattern for the project area is in the northerly direction toward the San Francisco Bay. The existing drainage system within the roadway includes median inlets, cross culverts, unlined trapezoidal channels, and two pump stations (Chrysler Pump Station and Ravenswood Pump Station). The pump stations are a major storm drain discharge system for the Cities of Menlo Park and Palo Alto and adjacent unincorporated areas. Pavement and median runoff collects in gutters and drains to the existing cross culverts, which discharge into roadside detention ditches before reaching the San Francisco Bay. The runoff from the westbound lanes between Willow Road and University Avenue, as well as the adjacent drainage, flow to the Ravenswood Triangle pump station via the existing storm drain trunk line east of Willow Road. While the existing runoff flow patterns will remain intact, some modifications to the system will be required to accommodate the roadway widening. Drainage culverts will be lengthened or relocated as necessary and unlined ditches will be lined as needed to maintain flow capacity. Culverts and drain inlets will be installed at locations where right-of-way constraints prohibit the construction of ditches.

Water Quality: The Applicant has determined that the groundwater at two sites is contaminated. Groundwater collected at an average depth of 5.9 feet between Marsh Road and Chrysler Drive tested positive for Trichloroethene (TCE), in excess of State of California Regional Water Quality Control Board (RWQCB) Maximum Contaminant Level (MCL) for the protection of

beneficial use of groundwater. The RWQCB MCL for TCE is 15 ppb, while the two detectable concentrations of TCE were 18 ppb and 150 ppb. Groundwater collected at an average depth of 5.4 feet between Willow Road and the Dumbarton Bridge tested positive for Lead and Nickel. Of the 14 GW samples collected 9 groundwater samples exceeded the MCL for lead and 5 exceeded the MCL for nickel. The MCL's for lead and nickel are 15 ppb and 100 ppb, respectively. The groundwater samples exceeding the lead MCL range in concentrations from 18 ppb to 1100 ppb, and the groundwater samples exceeding the nickel MCL range in concentrations from 480 ppb to 5400 ppb.

Due to the depth of excavation in the project, it is anticipated that dewatering will be necessary. In order to minimize sedimentation of receiving waters, non-contaminated groundwater will be collected into a settlement tank and discharged via the storm drain system. Contaminated groundwater will be collected into a settlement tank then discharged in the South Bayside System Authority (SBSA)/West Bay Sanitation District (WBSD) sanitary sewer systems. The Applicant has applied for a discharge permit from SBSA/WBSD and was issued an approved Discretionary Groundwater Discharge Permit on September 13, 2000.

Aquifer/Groundwater Recharge: Impacts to aquifer recharge would result from project construction due to an increase of impervious surface area within the project area and reduced water infiltration in temporary impact areas during project construction. The Applicant indicates, however, that the areas affected by project construction (Sites 1-6) are not a major recharge sources for area aquifers. The Applicant also states that the total combined area to be filled at four isolated locations

within the project limits is 1.14 acres of waters of the U.S. and that this combined area constitutes less than 2 percent of the unpaved area at the project site. In addition, native clay soils underlying the project site have a very low permeability and that re-compacting of these soils is not likely to change the soil permeability. The Applicant contends that given the small size of the affected area, the thickness of the proposed fill and the relatively minor change in the overall permeability of the soils, that there will be a negligible change in the infiltration rate at the project site.

A long-term impact to aquifer recharge would result from the filling of 1.14 acre of waters of the U.S. Although the proposed project would eliminate surface water infiltration within the 1.14 acre, the Applicant believes that since the impact area is small and that the areas affected are not major contributors to area aquifers, the overall project impact to aquifer recharge would be negligible.

The Applicant further contends that the wetland mitigation, including creation of 2.28 acres of new wetland area within the project vicinity (Ravenswood Triangle), would compensate for lost groundwater recharge as a result of project construction.

Air Quality: The Applicant conducted an air quality analysis for the project that considered the local impact within approximately 1000 feet of the roadway. Carbon Monoxide (CO) was analyzed as required by State and Federal laws. As there are no residences or facilities adjacent to the roadway that would constitute sensitive receptors, the bike path was considered to be the site for sensitive receptors for the purposes of the Applicants study. The bike path is

adjacent to the expressway throughout the project limits and has the potential of exposing users to CO emissions.

The Applicant determined that the project would have an insignificant local air quality impact based on predicted worst-case CO concentrations in the years 2000 and 2010. The predicted CO concentrations were all below the Federal and State ambient air quality standards in both the 1-hour and 8-hour categories. The project was found to be in conformance with the State Implementation Plan in accordance with the final conformity requirements of the 1990 Federal Clean Air Act Amendment.

Noise Conditions: The Applicant conducted a noise impact study to describe the existing noise environment in the project area and to evaluate future traffic noise impact on receptors in the study area. Criteria for noise evaluation were those of the Federal Highway Administration (FHWA) and Caltrans. Using these criteria, noise impacts were measured at qualified receptors and evaluations were categorized by land use activity designations. Qualified receptors within the project study area are experiencing traffic noise levels at the present time that have been determined to be below FHWA and Caltrans Noise Abatement Criteria.

Within the project noise study area there are no residences, apartment buildings or schools. There is a park and one private recreational facility within proximity of the proposed project. The remaining receptors are commercial facilities and open lands. All properties were studied for possible adverse noise impacts. Analysis of the study area determined that one receptor, the larger area of the Raychem recreational facility, west of Raychem Drive, is eligible for noise mitigation because

measured noise levels would exceed Federal and State criteria (Leq 67 dBA).

The recommended noise abatement was the construction of a sound wall approximately 14 feet in height and 790 feet long. The sound wall is expected to lower traffic noise levels by approximately 5 to 6 decibels within Raychem's recreational facility. A noise barrier could not achieve the minimum attenuation (reduced decibels) required for the smaller recreation area west of Raychem Drive.

Construction of the sound wall for the larger recreation area at the Raychem facility was contingent upon concurrence by Raychem Inc. Raychem Corporation declined the construction of the sound wall on December 28, 1998.

Impacts To The Biological Environment:

a. Aquatic Diversity and Abundance:

The wetland and open water habitat that would be affected by the project exhibit low aquatic diversity and abundance due to the low quality of both terrestrial (weedy vegetation) and aquatic habitat.

Although, the project would result in substrate disturbance during construction, the Applicant expects that the short-term construction impacts to aquatic diversity and abundance would be minimal.

The Applicant expects long-term impacts (loss of 1.14 acre of wetland and open water habitat) to aquatic diversity and abundance to be minor since the channels do not support high quality habitat for aquatic species and function primarily as seasonal dispersal channels and the habitat will be replaced at a site adjacent to the

impacted area (Ravenswood Triangle) at a 2:1 replacement ratio (2.28 acres).

- b. **Wildlife Habitat:** The Applicant indicates that areas within Corps jurisdiction impacted by project construction are highly disturbed and do not provide high quality wildlife habitat due to urban encroachment.

The Applicant states that all short- and long-term indirect impacts were considered and with the proposed mitigation measures, the project will not significantly impact wildlife habitat resources in the project area.

- c. **Ecological Integrity/Fragmentation:** The majority of habitat in the project vicinity has been fragmented as a result of urban development. The Applicant states that the project would not contribute to additional fragmentation or loss of ecological integrity within the project vicinity.

- d. **Wetlands:** A total of 1.14 acres of emergent wetland habitat would be permanently impacted by the project including 0.03 acre at Site 1, 0.68 acre at Site 4, 0.35 acre at Site 5 and 0.08 acre at Site 6. Approximately 0.48 acre of wetland habitat would be temporarily affected by construction. Permanent wetland impacts will be replaced at a 2:1 ratio adjacent to the project site at the Ravenswood Triangle. Wetlands temporarily affected by project construction will be restored to pre-project conditions when the project is completed.

- e. **Endangered Species:** The Applicant surveyed the project for the presence of Federally listed species. Suitable habitat for several Federally-listed species was found to occur within the project boundary including habitat for the California red-legged frog (*Rana aurora draytonii*), western snowy plover (*Charadrius alexandrinus nivosus*),

California clapper rail (*Rallus longirostris obsoletus*), California least tern (*Sterna antillarum browni*), American peregrine falcon (*Falco peregrinus anatum*) (foraging habitat only), Alameda song sparrow (*Melospiza melodia pusillula*) (foraging only), black rail (*Laterallus jamaicensis*) and salt marsh harvest mouse (*Reithrodontomys raiventris*).

The Applicant indicates that no Federally listed species would be affected by the project construction. This includes the salt marsh harvest mouse that was originally thought to occur within the project vicinity. Surveys for the species conducted in the project vicinity did not indicate its presence; therefore, it is expected that the species does not occur within or near the project and would not be affected by project construction.

- f. **Mitigation:** The Applicant has proposed to mitigate permanent impacts to waters of the United States at the Ravenswood Triangle (Figure 8) at a 2:1 replacement ratio. The mitigation would consist of the creation of 2.28 acres of saline emergent wetland habitat through the excavation of fill material on the eastern end of the Ravenswood Triangle. Functions and values that will be replicated at the mitigation site include flood control, water quality improvement, sediment retention, nutrient removal and transformation and plant and wildlife habitat.

Excavating the existing fill is expected to create the replacement habitat. The created wetlands will be sustained by groundwater; however, the primary source of water for the newly created habitat will be rainfall and stormwater runoff. Following excavation, areas will be allowed to revegetate naturally. If follow-up monitoring shows that revegetation is necessary, plants will be installed at the site to ensure target plant

species become established. Plants will be installed from native plants collected at the Ravenswood Triangle.

The Applicant proposes that the mitigation area be maintained and monitored for a 3-year period. If successful replacement has not occurred at the conclusion of the 3-year monitoring period, then contingency measures will be implemented.

Impacts to the Social and Economic Environment

- a. **Noise:** The proposed project is expected to have negligible impact on short- and long-term noise levels in the project area. Project construction would result in a temporary increase in noise levels in the vicinity of the project site, but these impacts are expected to be minor. Noise studies conducted for the project demonstrate that once the project is constructed, noise levels would increase only 1-2 dBA over existing levels (with the recently constructed BART project in operation).
- b. **Aesthetics:** Some landscaping will be removed for the construction. Impact areas include the south side of Sate Route 84 between Marsh Road and Raychem Drive and within the state right-of-way bordering the entrance to Sun Microsystems headquarters. All impacted landscaping will be replaced in conformance to the San Francisco Bay Conservation and Development Commission (BCDC) requirements.
- c. **Economics:** Construction of the project is expected to cause temporary impacts from increased traffic congestion, reduced air quality and increased noise during the construction period. To alleviate these impacts, roadway construction will be restricted to off-peak traffic periods and lane closures will be limited to off-peak hours.

d. **Traffic and Transportation:** During construction of the project, minor traffic delays and reduced freeway speeds may occur adjacent to construction zones. Construction activities would require lane shifting; lane narrowing; lane reduction on freeway ramps; use of temporary ramps with lower design speeds; and night/early morning closure of local streets, ramps and freeway sections. Several measures would be taken to reduce and mitigate any traffic delays resulting from these activities. Construction would be phased to reduce traffic flow interruption and to avoid a decrease in freeway capacity. A traffic management plan would be instituted to manage traffic patterns and freeway and local street detour signs would be used to mitigate short-term impacts to traffic circulation. Motorists would also be notified of construction related traffic impacts through additional signs, press releases to local radio and television stations, public notices in local publications, and/or mailings.

Completion of the project is expected to improve long-term traffic circulation patterns in the vicinity of the project. Benefits of the project would include traffic congestion relief and reduced accidents.

Impacts to the Historic and Cultural Environment:

- a. **Archaeological Resources:** Record searches and field surveys at the project site indicate that no known archaeological sites are present within the project area or the mitigation site at the Ravenswood Triangle. Additionally, no historic buildings or other features constructed before 1945 occur within the project area. If buried archaeological deposits are discovered during construction, work in the vicinity of the find will be halted until a qualified archaeologist has determined

the public interest requires a careful weighing of all factors relevant in each particular case. The benefits which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. The decision on permit issuance will, therefore, reflect the national concern for both protection and utilization of important resources. Public interest factors which may be relevant to the decision process include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

12. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public, Federal, state, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed action. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit

for this proposal. To make this decision, comments are used to assess impacts on Federally listed species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impacts Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

13. SUBMISSION OF COMMENTS: Interested parties may submit in writing any comments concerning this activity. Comments should include the Public Notice subject, number and date of this Notice and should be forwarded so as to reach this office within the comment period specified. Comments should be sent to: U.S. Army Corps of Engineers Attention Regulatory Branch.

Any person may also request, in writing, within the comment period of this Notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.