APPENDIX - E

CLEAN WATER ACT SECTION 404(b)(1) EVALUATION

LOWER MISSION CREEK FLOOD CONTROL PROJECT SANTA BARBARA, CALIFORNIA

PREPARED BY

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THE EVALUATION OF THE EFFECTS OF THE DISCHARGE OF DREDGED OR FILL MATERIAL INTO THE WATERS OF THE UNITED STATES (404(b)(1) Evaluation) FOR LOWER MISSION CREEK FLOOD CONTROL PROJECT SANTA BARBARA, CALIFORNIA

I. **INTRODUCTION**. The following evaluation is provided in accordance with Section 404(b)(1) of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500) as amended by the Clean Water Act of 1977 (Public Law 95-217). Its intent is to succinctly state and evaluate information regarding the effects of discharge of dredged or fill material into the waters of the U. S. As such, it is not meant to stand alone and relies heavily upon information provided in the environmental document to which it is attached. Citations in brackets [ ] refer to expanded discussion found in the Environmental Impact Statement/Environmental Impact Report (EIS/EIR), to which the reader should refer for details.

Project Purpose: Section 230.10(a)(2) of 404(b)(1) guidelines states "an alternative is practicable if it is available and capable of being done after taking into consideration costs, existing technology and logistics in light of overall project purposes." One of the primary objectives is to reduce flooding damages to residential and commercial properties in the floodplain (See Section 2 of the Main Report). Twelve alternatives were developed during the feasibility study. However, these alternatives were similar in nature; therefore, based on criteria, similarities and differences in the basic design features, the decision was made to evaluate four Alternatives for detailed environmental analysis in the Final EIS/EIR. They are Alternatives 1, 6, 8, and 12. Alternative 1 continues to be the No Action plan against which the consequences of structural solutions are evaluated. Details of these Alternatives are described in [Section 3.5 of the EIS/EIR]. Alternative 12 best satisfies the overall project purpose and provides maximum incidental environmental benefit compared to the other viable alternatives. Therefore, we consider Alternative 12 to be the least environmentally damaging practicable alternative.

The project purpose is to provide 20-year flood protection to the City of Santa Barbara. Any proposed alternative along Lower Mission Creek would necessarily require future maintenance including sediment and debris removal to maintain creek storage and flood flow capacity during storm seasons. Without any maintenance, the City and surrounding areas would be frequently inundated by flooding, with risk to life and property. Therefore, even Alt.1 (the without project conditions plan) assumes maintenance of the channel through sediment removal. Future maintenance is a part of the project design. Impact analysis and mitigation measures are included for future maintenance in the Final EIS/EIR.

II. PROJECT DESCRIPTION.

A. **Location**: The Mission Creek drainage area is located in and adjoining the city of Santa Barbara, California, about 100 miles northwest of the City of Los Angeles. The drainage area, comprising about 11.5-square miles, is a narrow coastal area and extends from the Santa Ynez Mountains on the north to the Pacific Ocean on the south. Mission Creek rises at about

4,000 feet elevation and flows about 8 miles through the City of Santa Barbara to empty into the Pacific Ocean [see Figure 1.1-1 of EIS/EIR]. The study is limited to the final 1.2 miles of the creek, from just downstream of Canon Perdido Street to Cabrillo Boulevard.

B. **General Description** [3.5 and 3.5.2, 3.5.2.1,3.5.2.2]: The EIS/EIR addresses environmental impacts related to the four alternatives (including the No Action Alternative) to flood control on the lower Santa Paula Creek.

Alternative 12 is the National Economic Development (NED) Plan, as well as the tentatively Recommended Alternative. This Alternative would provide maximum incidental environmental benefits, and it is an environmentally superior plan compared to other viable alternatives considered during the feasibility study.

R The project description and procedures for its maintenance have been revised based on hydraulics/engineering, real estate constraints, and comments received from the resource agencies to include structural features to mitigate or minimize impacts to the biological resources, particularly to the Federally listed species, steelhead and tidewater goby. Future maintenance of the constructed channel and culvert and weir length and height have been modified based on additional hydraulic analysis performed for the Recommended Plan.

Alternative 12 consists of: improvements to the channel for approximately the last mile of the creek between the Canon Perdido Street Bridge at the upstream end, and the Cabrillo Boulevard Bridge near the outlet; replacement of four bridges, streamlining bedslope, installing a culvert that bypasses the oxbow, stabilizing creek banks using short vertical walls and riprap sideslope; and planting of native vegetation along the riprap. The creek width would range from 60 to 70 feet at the top. The specific width of the channel at each bridge crossing is listed in Chapter 4, Plan Formulation, of the Main Report. The average depth of the creek would be 8 to 12 feet throughout the project reach. Future maintenance for the life of the project is included in this project description. Future maintenance of the constructed channel is essential to retain the form and design capacity of the creek. Impacts related to future maintenance are addressed in the EIS/EIR. Chapters 6 through 19 of the EIS/EIR provide existing conditions and address impacts related to this proposed project. Environmental commitments and mitigation measures are included to avoid/reduce or minimize impacts to natural and cultural resources [see Section 24, Mitigation Monitoring Plan (Appendix H); Biological Assessments (Appendix A); and Biological Opinion for Steelhead (Appendix B-1)].

This alternative would increase the channel capacity to 3,400 cfs and would provide approximately a 20-year level of flood protection. The natural bottom would be maintained, or restored to natural sediments where now hardened by concrete, and creek banks would consist of a combination short vertical wall and ungrouted riprap. The bottom half of the bank would consist of a vertical wall while the upper half would be built with riprap at a 1.5:1 (H:V) slope. Aesthetic treatment would be incorporated into the project design to minimize the visual impacts of vertical walls. The riprap would be covered with topsoil. Concrete pipes of varying sizes (up to a maximum of three feet in diameter) extending through the riprap layer to underlying soils would be strategically placed to allow planting of native trees and vegetation. Native willows or branches and other native herbaceous plants would be planted beneath the riprap and would sprout through gaps in it to form continuous understory riparian growth.

Upstream of Highway 101, the combination of vertical wall and riprap would be the predominant bank treatment, except in two short reaches just upstream of the Haley/De la Vina and De la Guerra Bridges. Below Highway 101, the combination of vertical wall and riprap

would be applied along the southeast bank, starting from midway between the Chapala and Mason Street Bridges to the State Street Bridge. Vertical walls would be maintained for the remainder of this reach.

The improved creek would generally follow the existing alignment and would incorporate a new culvert between Highway 101 and Chapala Street Bridge that would bypass the oxbow. The oxbow would be left in place to function as the low flow channel.

Five small parcels of open land would be left along the banks after completion of project construction. These parcels range in size between 0.03 and 0.14 acres (Fig. 3.5.4). These parcels would be used to expand the area planted to creek bank vegetation, so called "habitat expansion zones." Each habitat expansion zone would be designed to serve a dual purpose: to expand the corridor of riparian habitat to be planted along the stream banks, and to provide for passive park space for area residents. Native trees, primarily western sycamores, cottonwoods, and coast live oak, from local nursery stock would be planted in the habitat expansion zones. In time, their canopies would form dense clusters on the overbank and adjacent to stream corridor. In some of these zones, pathways and benches might also be added to create passive park spaces.

Planting along the riprap and planting of native trees in habitat expansion zones are an integral part of the project design. The ecological values generated by these features will offset the impacts from the implementation of the proposed alternative on existing stream bank vegetation. Therefore, no mitigation will be required for the temporary loss of habitat along the stream banks. This proposed alternative provides maximum habitat values compared to all other alternatives evaluated in this is document. In the long-term, the habitat value within the project reach would exceed the value of the existing habitat. If any of the planting on the aforementioned features is deleted from the project design, then impacts related to the bank vegetation would
need to be recalculated, which could result in additional mitigation.

R This alternative would also provide the opportunity to construct another habitat expansion zone in the vicinity of the oxbow formation area. This habitat expansion zone would be located just upstream of Highway 101. It would be located in the vicinity of De la Vina Street on the west and Gutierrez Street on the north. The total area to be created would be about 0.6 acres [25,800 square feet, see Figure 3.5.3 for location]. This area was originally proposed as a constructed wetland. However, after further review, it was determined that this site is more suitable for use as a habitat expansion zone, as described above. The construction of this feature would provide additional ecological benefits. However, its construction would be subject to cleanup of the existing known contamination on the site [see details in Section 15, HTRW of the EIS/EIR]. If, prior to the completion of project construction, the designated site is remediated, then the habitat expansion zone would be constructed as planned.

Removal of Existing Bank Protection and Earthen Material:

The creek bottom and banks for about a mile, between the Canon Perdido Street and Cabrillo Boulevard Bridges, would be excavated to increase the creek capacity to provide a 20-year level of flood protection to the City of Santa Barbara. The removal of all existing banks would occur within the project reach, except for a retaining wall located just upstream of De la Guerra Bridge, and both banks along the oxbow between Highway 101 and the Chapala Street Bridge. The excavation of the channel would begin from the downstream end of the project near Cabrillo Boulevard and progress upstream.

R The total amount of material to be excavated from creek banks and creek bottom would be about 82,000 cubic yards (cy). Creek excavation would occur section by section. Therefore, all 82,000 cy of material would not be stockpiled at one time. About 17,000 to 18,000 cy of material would be utilized in project construction as fill material. The remaining 64,000 cy of excavated material can be stockpiled or be taken to a county yard for storage or recycling depending on whether it meets project specifications. Expected debris would include stacked burlap bags filled with concrete, large rocks, mortared riprap, slabs of concrete, grouted stone, jointed masonry walls, shot-crete walls, wire baskets filled with coarse rock (gabions), formed walls, wooden pilings, and other bank material found throughout the length of the project. The material could be distributed to other construction sites requiring fill. All of the sandstone not used in project construction will either be conserved for use in other City projects or, if badly damaged, recycled. Most of the metal and concrete can be recycled. The green waste can be composted and recycled as compost and mulch. The USACOE will examine suitability of the excavated material for beach nourishment. If material is suitable, it can be used to restore sand supply on local beaches.

It is assumed that very small amounts of excess material would be transported within a radius of about 10 to 25 miles from the project site. At maximum, about 30,000 to 40,000 cy of material would need to be transported to the disposal sites either at the Tajiguas Landfill, located 25 miles west of the project site or used in a reclamation site (if one exists at the time of construction).

Stabilization of Creek Banks:

The existing creek banks would either be replaced with the combination short walls and riprap sideslopes or vertical walls. The vertical walls would be constructed in two methods, according to their proximity to any existing structures. The first method would be the use of an inverted "T" footing. This less expensive construction method would be applied in areas where sufficient rights-of-way are available without directly impacting existing structures. In areas with limited rights-of-way and close proximity to structures, a pier footing construction design would be applied. Typical cross sections of these designs are shown in the Plates found at the end of the Main Report, and figure 3.5.21-1, 3.5.2.1-2 of the EIS/EIR.

Where the riprap-vertical wall is used, the height of the wall would be approximately half the depth of the creek. The riprap sideslope would be built at a 1.5:1.0 slope. Concrete pipes of varying sizes, placed vertically in between the riprap, would serve as openings for planting of native riparian vegetation. The riprap sideslope would be covered with topsoil and planted with ground cover and shrubs that would help develop the understory of the larger riparian canopy along the creek.

R **Weir Inlet and Culvert that Bypasses the Oxbow :**

The reach referred to as the "oxbow" is where the sharpest bends of the creek within the project area are found. The oxbow runs the length of the creek between the Gutierrez and the Chapala Street Bridges, where the creek makes several sharp turns, while crossing Highway 101, the Montecito Street Bridge, and Union Pacific Railroad before joining its most direct path to the Pacific Ocean [See Figure 3.5.2.1-3]. The culvert (two 15-foot wide by 6-foot high boxes) connecting both ends of the oxbow is referred to as the overflow culvert or the "oxbow bypass." The overflow culvert would follow a more direct path across the oxbow. It would begin upstream of Highway 101, pass under the highway (where CalTrans had built a span to accommodate such a crossing to eliminate impacts to highway traffic), Montecito Street, and the railroad tracks before rejoining the creek alongside the downstream end of Chapala Street Bridge [See Figure 3.5.2.1-3 of the EIS/EIR].

A weir structure [see Figure 3.5.2.1-4, EIS/EIR] would be built at the inlet of the culvert to control the flows through the culvert and the oxbow. The height of the weir would be set in order to direct lower flows of up to 640 cfs through the oxbow. Also, the weir would split higher flows (up to the design conveyance capacity of 3400cfs) between the culvert and the oxbow. The culvert divider would be designed to form a "bullnose" and help minimize the potential for debris blockage. Refer to Exhibits in the Main Report for the details of these design elements.

Removal and Replacement of Bridges:

Lower Mission Creek is spanned by twelve bridges before emptying in to the Pacific Ocean. Four of those bridges would need to be replaced including Ortega Street, Cota Street, De la Vina Street, and Mason Street Bridges. De La Vina Street Bridge will be replaced by the city prior to implementation of this project. It is expected that the sequence of the remaining bridge demolition and reconstruction would complement the creek improvement construction schedule. Construction of the bridge replacements at the road crossings would need to be phased so that the adjacent road crossing could be used as a detour. Bridge reconstruction would start with the most downstream bridge (Mason State Bridge) and progress sequentially in the upstream direction ahead of the creek improvements. This would enable flood control benefits to be realized for the area downstream of the improved creek during the construction phase. [See Section 3.5.2 of the EIS/EIR for the detail description of the bridge replacement.]

R **Pilot Channel:**

The project's design for the creek's invert includes scoring a "pilot channel" into the bottom as the last element of construction. Otherwise, the streambed would be a uniformly flat expanse of native sediments between the toe walls. This pilot channel would constitute a permanent component of the instream habitat between Canon Perdido Street and Highway 101, although one possibly given to positional shifts as the finished creek bed evolves. No pilot channel would be fashioned into the creek bed below Yanonali Street. Between Yanonali and Mason Streets periodic tidal ebb and flow would largely negate the intended purpose of such a channel, and below Mason Street the tidal movements would very quickly would make it thoroughly ineffective.

A pilot channel large enough to carry at least 50 ft^3/sec would be adequate to carry water along the preferential innate course. Its physical size and shape would also be determined after final hydraulic analyses, but would probably be trapezoidal in appearance and 10 to 12 feet wide and about 1 foot deep. The channel would be enriched with representative types and gradations

of the larger native substrates - coarse gravels, small cobbles, and rocks or boulders as currently exist within Mission Creek.

R **Structural Features to Mitigate and Avoid Impacts to Biological Resources:**

Several structural features would be included to avoid and mitigate impacts to biological resources. These permanent and durable mitigation features would create hiding places where fish may take refuge. They would be composed of four separate structural elements formed by coarse surface relief of the walls (goby refugia), artificial overhangs projecting from the walls (fish ledges), and placing double rows of coarse boulders (fish baffles) between the overhangs along the creek walls [See Figure 3.5.2.1-18 EIS/EIR] and rock energy dissipaters. In combination, they should provide shelter for fish of all sizes. [See Section 3.5 of the EIS/EIR for the detailed description of these features. Section 10 and Biological Assessments provide purpose, implementation and mitigation provided by these features.]

Material Required for Construction:

Material required for project construction includes: earth-fill material; concrete for walls, footings, and the box culvert; rocks/riprap for slope protection; steel reinforcement for concrete support; filter material; fencing material; top soils; planters; and material required to establish vegetation. Most of the material would be obtained from a distance of about 5 to 10 miles radius from the project area.

Duration of Construction:

Project construction, including the proposed creek improvements, oxbow culvert, and bridge replacements, is expected to take a minimum of two years to complete. During construction, excavation activities would not be carried out during heavy rain and flooding season. Every effort would be made to complete project construction within two years. However, due to weather conditions/seasonal heavy rainfall, mechanical failure, or funding constraints, project construction could be delayed. In that case, project construction could take up to three or four years to complete. Project construction is scheduled to begin in mid-2003. The construction start date is dependent upon finalization of the EIS/EIR, compliance with all environmental regulations, and availability of the necessary funding.

Project construction would not occur within flowing water between December 1st and March 30th to avoid potential impacts to adult steelhead, a Federally listed species. Between April and the end of May, a biologist would monitor select locations upstream for the presence of young steelhead preparing to swim down to the ocean. Either the USACOE or an environmental contractor would fulfill this monitoring commitment. Temporary, brief suspensions of construction could occur during these two months.

Staging / Stockpiling Areas:

The proposed staging area would be located north of Highway 101 adjacent to the channel with access off of De la Vina Street. This area could also be used for construction access. Another possible staging area would be located north of the channel between the railroad and Yanonali Street. At this staging area, the selected contractor would install a temporary trailer with the sanitary facilities. Small quantities of material excavated (about 3000 to 4000 cy) from the creekbed would be stockpiled at these local staging areas, but the majority of it would be transported to the remote stockpile/disposal site, about 10 to 25 miles from the project area.

Material would be processed on site to be used for the project construction. The material could be distributed to other construction sites requiring fill. All of the sandstone not used in project construction will either be conserved for use in other City projects or recycled. Most of the metal and concrete can be recycled. The green waste can be composted and recycled as compost and mulch. The USACOE will examine suitability of the excavated material for beach nourishment. If the material is suitable, it can be used to restore sand supply on local beaches. Suitable material, about 18,000 cy, would be utilized in the project construction. Additional access points could be at State Street, Mason Street, Montecito Street, Cota Street, Bath Street, Ortega Street, and north of De La Guerra Street.

The staging area is a part of the project description. Staging areas are located along the creek banks. Impact analysis of staging areas is incorporated in to the alternative analysis. No separate discussion has been provided for identification of impacts related to the staging areas.

Equipment for Excavating Creek and Establishing Creek banks.

Construction equipment required for excavation of the creek and stabilization of the creek bank would include two graders, three dozers, four bucket excavators, two loader, one water truck, and dump trucks. Future maintenance would require two excavators and about 4 to 8 truck trips per day to transport the sediment.

R **Future Operation and Maintenance:**

Future maintenance of the creek is an integral part of the recommended alternative, Alternative 12, because flood flows and debris accumulation and removal would continue to impact channel vegetation and aquatic resources. To ensure and maintain its design function and form, some work to maintain the design capacity of the channel would be needed on a regular basis. Any areas where sediment deposition and/or vegetation growth occur beyond 15% of the channel capacity would be required to be removed to maintain the capacity of the project reach. Future maintenance would also include maintenance of the structures such as cleaning of oxbow bypass culverts, pilot channel, repair of vertical concrete walls and riprap (including bottom riprap lining and baffle piers), structures for mitigation, and maintenance of planted vegetation (after initial establishment required as part of project construction). It is estimated that the frequency of sediment removal would be at an interval as often as once a year. However, when several low-flow years occur sequentially, sediment removal might occur every two to three or more years. Over time, pools and riffles that provide aquatic habitat would reestablish in the channel [see details in Section 3.5 of the EIS/EIR].

Impact analysis for future maintenance is included in each resource is discussed in the EIS/EIR. Impacts related to maintenance activities are addressed in Chapters 6 through 19. Mitigation measures for future operation and maintenance for the life of the project are included in the EIS/EIR. Conditions identified in the EIS/EIR, Mitigation Monitoring Plan, Biological Opinion for steelhead and Biological Assessment would be followed during each operation and maintenance activity. A brief description of each activity is provided in the following paragraphs.

R **Future Maintenance of the Pilot Channel:**

The need for maintenance of the creek's capacity will occur after completion of the project when, or if, sedimentation and/or vegetation growth in any reach particular project reach in the project area exceeds 15% of the flow capacity. When maintenance needs do not dictate

removal of sediments, the County Flood Control District would not alter the currently existing pilot channel, but instead would only cut such vegetation as has begun to grow to unacceptable size. When sediments must be removed during the course of normal maintenance activities, the County would finish the work by reconstructing the pilot channel. This rebuilt channel would deliberately follow whatever course the creek had imposed on the original alignment of the pilot channel. In this fashion, the pilot channel would reflect an alignment that came about through natural processes, and which would be optimally efficient in the transport of sediments during low flow times of the year. The maintenance cycle would conclude by enrichment of the rebuilt channel with representative types and gradations of the larger native substrates.

Channel Shaping and Channel Desilting - Sediment Removal:

The Corps of Engineers performed a sediment transport budget analysis for the recommended plan. The general results indicated that there would be localized areas throughout the project reach that would experience either sediment deposition or erosion/scour conditions. An approximate quantification of these processes for with and without project conditions is summarized and presented in respective sediment budget tables found in Appendix B - Hydraulics.

The change from existing conditions to design conveyance capacity would alter the net sediment budget for the entire project very slightly. A net total of 25 cy should accumulate each time the creek carries an average storm event. In contrast, individual higher peak flows should promote net erosion from the streambed, 35 cy during a 5-year storm event and roughly ten times that quantity removed during a single design event. Future sediment accumulation is dependent upon the size and number of storm events. However, future maintenance would be similar to existing maintenance performed by Santa Barbara County. As an example of maintenance activities, the last time the County removed about 350 cy of sediment between Canon Perdido Street and Highway 101 in the summer of 1997. Evidently, no sediments were removed from the sandstone channel (between Montecito and Yanonali Streets) at that time. No maintenance of any kind (other than occasional trash removal) has been performed in the estuary (between Yanonali Street and Cabrillo Boulevard). No maintenance would be required within estuary.

Stream Bed Maintenance. Inspection and maintenance of the streambed would address vegetation control, fish baffles, rocky energy dissipater and boulder fields, desilting, and shaping. Vegetation control would be accomplished by either brushing, clearing or spraying. Clearing could be done using mechanical equipment such as a dozer. Partial removal of vegetation would occur yearly. The maintenance would follow a mosaic pattern, wherein one half the creek bed would be mowed or brushed in any one year. The other half of the streambed would be treated the same way the following year. Fish baffles, rocky energy dissipaters and boulder fields shall be periodically inspected. Rip-rap or boulders designed to be placed within the streambed shall be replaced back into the intended design location, if removed or dislodged by any means. Maintenance for desilting and streambed shaping would typically be done with a dozer or loader. Typically, accumulated sediment would be pushed to an area where the material can be loaded directly into trucks driving on the channel bottom or to an area where a crane (at the top of bank) can access the material, which could then be loaded into trucks and hauled to a suitable disposal site. It is possible that lesser amounts of sediment could be placed on the riprap slope.

Duration of Future Operation Maintenance:

Usually, sediment removal would occur only when the flow of water approaches the seasonal minimum, i.e. between mid-August and mid-October. Operation and maintenance

would not occur between December and March to avoid impacts to steelhead and tidewater gobies, both Federally listed species. However, in the case of a heavy storm event, operation/maintenance of the channel invert could be required between December and March. If maintenance work occurs during these months in flowing water, a qualified biologist would be needed on site to monitor the sediment removal activities. Environmental commitments identified in Sections 6 through 24 and the Mitigation Monitoring Plan in the EIS/EIR would be followed during future sediment removal operations. Future sediment removal activity may take about 15 to 30 days per year.

Authority and Purpose [2.1 of EIS/EIR]:

The Lower Mission Creek Flood Control Project is authorized under Section 209 of the Flood Control Act of 1962 (Public Law 87-874, 87th Congress, 2nd session), which reads in parts as follows:

"Sec. 209. The secretary of the Army is hereby authorized and directed to cause surveys for flood control and allied purposes, ... to be made under the direction of the Chief of Engineers, in drainage areas of the United States and its territorial possessions, which include the following named localities [including]:

All Streams in Santa Barbara County, California, draining the Santa Ynez Mountains, except Santa Ynez River and tributaries."

R D. **General Description of Excavated or Fill Material** [3.5.2 of EIS/EIR]:

As stated in section II.B above, approximately 82,000 cy of material would be excavated from the channel; out of this material about 18,000 cy of fill would be required for the project. The remainder of the material could be distributed to other construction sites requiring fill or recycled. All of the sandstone not used in project construction will either be conserved for use in other City projects or recycled. Most of the metal and concrete can be recycled. The green waste can be composted and recycled as compost and mulch. The USACOE will examine suitability of the excavated material for beach nourishment. If material is suitable, it can be used to restore sand supply on local beaches. It is assumed that very small amounts of excess material would be transported within a radius of about 10 to 25 miles from the project site. At maximum, about 30,000 to 40,000 cy of material would need to be transported to the disposal sites either at the Tajiguas Landfill, located 25 miles west of the project site or used in a reclamation site (if one exists at the time of construction).

Periodic Future Maintenance: Future upkeep would be required to maintain the design channel capacity would. Cleanout would occur after a significant amount of material is deposited into the channel in order to maintain channel capacity. On average, cleanouts would occur every two to three years. Cleanout would occur during low flow seasons.

Description of the Proposed Discharge Site [3.5]:

A detailed description of where material will be placed in the channel appears in the Final EIS/EIR. The following is a brief description of those activities.

Stockpiling Areas/Distribution of Material. Small quantities of excavated material would be stock piled at the proposed staging area, located north of Highway 101, adjacent to the channel with access to De la Vina Street. Another possible stockpiling area would be located

north of the channel between the railroad and Yanonali Street. The majority of material would be transported to construction sites requiring material, for recycling, or an existing disposal site, about 10 to 25 miles from the project area.

Stabilization of Creek Banks and Project Construction. Material required for project construction includes: earth-fill material; concrete for walls, footings, and the box culvert/weir; structural mitigation features, rocks/riprap for slope protection; steel reinforcement for concrete support; filter material; fencing material; top soils; planters; and material required to establish vegetation.

F. Description of the Excavation and Disposal Method:

Excavation of the Creek and Establishing Creek banks. The creek bed and banks would be excavated and the sideslope would be established with combination of vertical concrete wall and vegetated riprap. Excavation would be accomplished during the dry season and when water level is minimal in the creek. A low-flow channel would be created to divert existing water flow away from sediment removal area to minimize turbidity. No mechanized equipment would be permitted in flowing water between December 15 and the end of March.

III. FACTUAL DETERMINATIONS.

A. Disposal Site Physical Substrate Determinations:

(1). Disposal Site Physical Substrate Determination. Mission Creek is located on the southern slope of the foothills of the Santa Ynez Mountains. The stream originates in the mountains and across the foothills and flows through the City of Santa Barbara via a meandering course and flat alluvial plain near the Pacific Ocean. The Santa Ynez Mountains are a part of the east-west trending Transverse Range geologic province, and they are complexly folded and faulted within the project area. These mountains are composed of mainly igneous and sedimentary rock. The maximum elevation of these mountains behind Santa Barbara is about 4,000 feet.

The existing topographical environment adjacent to the lower reaches of Mission Creek is relatively flat, ranging from a 50 foot elevation at Carrillo Street to sea level at the outlet. Mission Creek bisects the City of Santa Barbara. The creek is narrow, usually between 40 to 50-feet wide, with dense urban land uses occupying most of the floodplain right up to the creek bank. The natural creek bank is fragmented by flood control features, including gabions, sacked concrete, piled stone, pipe and wire revetment and bulkhead structures. The creek bottom is made up of large cobble, sand and some overflow of concrete from flood control structures.

(2). Sediment Type. The Lower Mission Creek drainage basin/watershed is composed mainly of sedimentary rocks and sand. The excavated sediment is alluvial debris which is deposited in the stream channel during significant storm events.

(3). Dredged/Fill Material Movement. Material would be excavated when water flow is minimal. In addition, a low-flow channel would be created during construction and future debris removal operations. Excavated material would be transported to the stockpile area from the creek bed.

(4). Physical Effects on Benthos. Proposed project construction and periodic debris removal could cause the loss of most freshwater benthic invertebrates in the stream during

the time of debris removal. Also, the turbidity caused by debris removal is expected to impact benthic invertebrates in the immediate vicinity downstream. Implementation of the proposed project would result in loss of about 0.5 habitat units of aquatic habitat.

The project construction will restore a soft bottom to Mission Creek or retain that soft bottom if it is already present. Benthic invertebrates will have more sediments available as habitat once construction is complete. The proposed project is not expected to change the channel in any manner which would impede upstream or downstream passage of steelhead. Since Lower Mission Creek affords neither gravely shoals nor exposed sand bars and other features where fry could hatch, steelhead do not treat it as spawning reaches. Hence, leaving existing soft bottoms or removing extant concrete bottoms would not influence potential spawning behavior either directly or indirectly.

(5). Action Taken to Minimize Impacts [Section - 7.6.6, 10.4 and 23 of EIS/EIR]. The lower part of Mission Creek affords significant habitat for two Federally endangered fish species, the tidewater goby (*Eucyclogobius newberryi*) and southern California steelhead (*Oncorhyncus mykiss*). A coastal, tidal lagoon forms in the summer months where Mission Creek empties into the Pacific Ocean, on the beach side of Cabrillo Boulevard. It provides the principal habitat for gobies and is essentially a marine environment. A plastic pipe buried in the sand at the edge of the beach and roughly 30 inches in diameter, a pipe which transports spoils from harbor dredging, may abet the formation and persistence of this lagoon. Steelhead historically used Mission Creek as a migration corridor to spawning beds upstream.

R Structural mitigation features would be included to avoid and mitigate impacts to biological resources. These permanent and durable mitigation features would create hiding places where fish may take refuge. Some features would also assist steelhead as they travel upstream. They would be composed of four separate structural elements formed by coarse surface relief of the walls (goby refugia), artificial overhangs projecting from the walls (fish ledges), placing double rows of coarse boulders (fish baffles) between the overhangs along the creek walls, and rock energy dissipaters. In combination, they should provide shelter for fish of all sizes. See Section 3.5 of the EIS/EIR for the detailed description of these features; Section 10 and the Biological Assessments provide purpose, implementation and mitigation provided by these features. In addition, mitigation measures have been included to minimize project related impacts to the biological resources (see details in Section 10 of the EIS/EIR, Mitigation Monitoring Plan - Appendix H, Biological Assessments - Appendix A-1 and A-2, and Biological Opinion for steelhead - Appendix B-1).

The timing of construction schedules must be adjusted to minimize or avoid impacts to these two fish species. Broad scheduling commitments include:

precluding any use of machinery in the water when significant stream flows occur between mid-December and the end of March;

completion of all work between Cabrillo Boulevard and Yanonali Street between April and June, because gobies will be more inclined to enter the estuary as summer conditions begin to prevail;

restriction of all construction activities above Yanonali Street to the months between the beginning of June and the end of November, the time of year when steelhead would not migrate through the creek.

To minimize impacts to gobies, it will be necessary to close off both ends of the area to be de-watered with some impermeable barrier, then have a biologist knowledgeable of tidewater gobies and the ecological niche they inhabit seine the entire impoundment for gobies. The biologist must have appropriate authorization from the US Fish and Wildlife Service for such incidental take. Any and all gobies netted this way will have to be freed into the estuarine water outside the barrier. Once cleared of fish, the impounded half channel can be de-watered without impacts to tidewater gobies.

This process will be required twice. At the end of all construction in the dry half, the end barricades need to be withdrawn slowly to allow gradual flooding, preferably from the downstream end. The end barricades would then be moved to the other half of the channel, and the process of netting fish to safety, de-watering, and construction begun again. See details in Section 10 of the EIS/EIR. Details are also provided in enclosed biological assessments.

Construction below Yanonali Street imposes different needs for environmental commitments because this project reach is likely to be inhabited by tidewater gobies. Such a solution would permit steelhead to pass either direction in the wet half of the channel while construction can occur simultaneously in the dry half. Provided this avoidance measure is implemented between April and June, a window of 2 months duration, all construction of flood control structures in Mission Creek can be accomplished with no impact to steelhead.

During project construction and future maintenance, there are possibilities that there may be potential impacts on steelhead. For all construction activities which alter the banks or stream bottom above Yanonali Street, machinery must be excluded from the channel and stream bottom any time significant flows pass down Mission Creek between mid-December and mid-May. All construction activities above Yanonali Street should be restricted to the months between the beginning of June and the end of November. During those months, a double strand of silt fencing material should be strung across the channel below the current area of work to retain sediments dislodged from the banks or creek bottom. The strands need to be at least 30 feet apart to facilitate the lower fence trapping any sediments which swirl past the upper strand.

In-channel sediment removal will not occur during periods of high flow, therefore, turbidity impacts are expected to be minimized. Also during debris removal, water will be diverted to one side of the channel while debris is removed from the undiverted side. After cleanout of that side occurs, water will be diverted to the clean side and debris removed from the other side.

B. Effect on Water Circulation, Fluctuation, and Salinity Determinations:

(1). Effect on Water [Section - XX]. The following potential impacts were considered:

a. Salinity
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

b. Water Chemistry (pH, etc.)
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

c. Clarity
_ _ _N/A _X_ _INSIGNIF. _ _ _SIGNIF.

d. Color
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

e. Odor
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

Taste
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

g. Dissolved gas levels
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

h. Nutrients
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

I. Eutrophication
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

j. Others
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

(2). Effect on Current Patterns and Circulation. The potential of discharge or fill on the following conditions were evaluated:

a. Current Pattern and Flow
_ _ _N/A _ X_ _INSIGNIF. _ _ _SIGNIF.

b. Velocity
_ _ _N/A _ X_ _INSIGNIF. _ _ _SIGNIF.

c. Stratification
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

d. Hydrology Regime
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

(3). Effect on Normal Water Level Fluctuations. The potential effect of discharge or fill on tide stages is not applicable to this project.

C. Suspended Particulate/Turbidity Determinations at the Disposal Site.

(1). Expected Change in Suspended Particulate and Turbidity levels in the Vicinity of the Disposal Site: The construction activities may increase turbidity in the creek, but during June-November flow is expected to be at a minimum. Most of the precipitation in the drainage basin is received during the months of December through March.

Impact: _ _ _N/A _ X_ _INSIGNIF. _ _ _SIGNIF.

(2). Effects (degree and duration) on Chemical and Physical Properties of the Water Column.

a. Light Penetration
___N/A _ X_ _INSIGNIF. ___ SIGNIF.

b. Dissolved Oxygen
___ N/A _ X_ _ INSIGNIF. ___SIGNIF.

c. Toxic Metals & Organic
___N/A _ _X _INSIGNIF. ___SIGNIF.

d. Pathogen
___N/A _ X_ _INSIGNIF. ___SIGNIF.

e. Aesthetics: Temporary effect expected
___N/A _ X _ _INSIGNIF. ___SIGNIF.

f. Others
_ X _ _N/A ___INSIGNIF. ___SIGNIF.

(3). Effects of Turbidity on Biota: These impacts are considered insignificant because the construction will occur during low flow and water will be diverted so that construction does not occur in the flowing stream, thereby reducing turbidity impacts.

a. Primary Productivity
___N/A _ X _ _INSIGNIF. ___SIGNIF.

b. Suspension/Filter Feeders
___N/A _ X_ _ INSIGNIF. ___SIGNIF.

c. Sight feeders
___N/A _ X_ _INSIGNIF. ___SIGNIF.

(4). Actions taken to minimize impacts. See section 3.A.(5). above.

D. Contaminant Determination

No chemical or biological impacts are expected at the disposal site.

E. Effect on Aquatic Ecosystem and Organism Determinations: The following ecosystem effects were evaluated [4.X]: The proposed construction is not significantly different from the No Action Alternative and is expected to have no significant effect on aquatic organisms, special aquatic sites, or threatened and endangered species.

(1). On Plankton _X_ _N/A ___ _INSIGNIF. ___SIGNIF.

(2). On Benthos ___N/A _ X_ _INSIGNIF. ___SIGNIF.

(3). On Nekton _X_ _N/A ___ _INSIGNIF. ___SIGNIF.

(4). Food Web ___N/A _ X_ _INSIGNIF. ___SIGNIF.

(5). Sensitive Habitats:

a. Sanctuaries, refuges
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

b. Wetlands
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

c. Mudflats
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

e. Vegetated Shallows
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

f. Coral reefs
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

g. Riffle and Pool Complexes
_N/A _ _X _INSIGNIF. _ _ _SIGNIF.

(6). Threatened & Endangered Species
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

(7) Other Wildlife (grunion,trout)
_X_ _N/A _ _ _INSIGNIF. _ _ _SIGNIF.

(8). Actions taken to minimize impacts. See section 3.A.(5) above.

F. Proposed Disposal Site Determinations:

(1). Mixing zone determination. The mixing zone for the disposal site is confined to the smallest practicable zone.

R (2). Compliance with Applicable Water Quality Standards.

The Clean Water Act governs discharge or dredging of materials in the waters of the United States and it governs pollution control and water quality of waterways throughout the U.S. Its intent, in part, is to restore and maintain the biological integrity of the nation's waters. The goals and standards of the Clean Water Act are enforced through permit provisions. Sections 404, 401 and 402 of the Clean Water Act pertain directly to the proposed project. Section 404 outlines the permit program required for dredging or filling the nation's waterways.

The USACOE does not issue itself a permit for civil works projects. Therefore, a Section 404(b)(1) analysis is prepared and included in the EIS/EIR Appendix E. Section 404(b)(1) addresses project related impacts to the waters of the United States and provides appropriate mitigation measures to minimize impacts. Section 230.10(a)(2) of the 404(b)(1) guidelines states that "an alternative is practicable if it is available and capable of being done after taking into consideration costs, existing technology and logistics in light of overall project purposes." A future maintenance plan is included in the EIS/EIR and impacts related to future maintenance are identified. Mitigation measures for future maintenance for the life of the project are included in

the EIS/EIR. Santa Barbara County must follow all of the environmental commitments identified in the EIS/EIR for future maintenance. In the future, if conditions change or new endangered and threatened species are listed, the local sponsor will need to coordinate with the appropriate resource agencies regarding new species introduced in the project area and comply with the environmental regulations.

R On December 20, 1999, Santa Barbara County submitted an application for a Section 404,USACOE Regulatory, permit with the Draft EIS/EIR. A General Permit could be renewable at intervals of 5 to 10 years under Section 404, or Regulatory Permit for Water Quality, or it could be waived under 404 (r) regulations. Future maintenance is an integral part of the project design, Impacts and mitigation measures for future maintenance are included in the Final EIS/EIR. The EIS/EIR would be submitted to Congress for authorization of the project construction and appropriation of funding.

Section 404(r) of the Clean Water Act, waives the requirement to obtain either the State Water Quality Certification or the 404 permit if:

"*The requirement to obtain Section 401 Water Quality Certification for the project construction is waived if information on the effects of the discharge of dredged or fill material into waters of the United States, including the Section 404 analysis, is included in an EIS/EIR submitted to Congress before Congress authorizes the project or appropriates funds for construction.*"

R On December 20, 1999, the USACOE and the Santa Barbara County Flood Control District submitted a request for a waiver from the Section 401 Water Quality Certification (Appendix E-1) for project construction and future maintenance. Future maintenance is a part of the project. By letter dated February 2, 2000, the California Regional Water Quality Control Board (CRWQCB) provided a waiver from the Section 401Water Quality Certification for the project construction and the future maintenance (Appendix E-1).

Federal agencies are exempt from Section 1601, but the Santa Barbara County is a participant in the project; therefore, Santa Barbara County will file a Section 1601 application for a streambed alteration agreement.

The revised Coastal Consistency Determination (CCD) can be found in Appendix D of the Final EIS/EIR. Prior to project construction, concurrence from the CCC would be obtained. Therefore, the project would comply with the Coastal Zone Management Act.

(3). Determination of Cumulative Effects of Disposal or Fill on the Aquatic Ecosystem: No such cumulative impacts are anticipated as a result of the proposed project.

Impacts: ___N/A __X _INSIGNIF. ___SIGNIF.

A0 Determination of Indirect Effects of Disposal or Fill on the Aquatic Ecosystem:

Impacts: ___N/A __X _INSIGNIF. ___SIGNIF.

III. FINDING OF COMPLIANCE. A review of the proposed project indicates that:

A. The discharge represents the least environmentally damaging practicable alternative and, if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose.

___X__YES _____NO

B. The activity does not appear to: 1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the CWA; 2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and 3) violate requirements of any Federally designated marine sanctuary.

__X___YES ____NO

C. The activity will not cause or contribute to significant degradation of waters of the U.S. including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values.

___X__YES ____NO

D. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

____X__YES ____NO

E. Evaluation of Extent of Degradation of Waters of the United States. No significant, unmitigable impacts are expected.

F. Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on the Aquatic Ecosystem. All practical steps have been taken to minimize impacts.

G. On the Basis of the Guidelines, the Proposed Disposal Site(s) for the Discharge of Dredged or Fill Material (specify which) is (select one):

_____ (1) Specified as complying with the requirements of these guidelines; or,

___X____ (2) Specified as complying with the requirements of these guidelines,

with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects on the aquatic ecosystem; or,

_____ (3) Specified as failing to comply with the requirements of these guidelines.

APPENDIX - E -1

CORRESPONDENCE RELATED TO SECTION 404 AND 401 LOWER MISSION CREEK FLOOD CONTROL PROJECT SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

June 21, 2000

Office of the Chief
Environmental Resources Branch

Mr. Mike Higgins
Associate Water Resource Control Engineer
California Regional Water Quality Control Board
81 Higuera Street, Suite 200
San Luis Obispo, California 93401

Dear Mr. Higgins:

The U.S. Army Corps of Engineers (USACOE) requested a waiver from the Section 401 Water Quality Certification (WQC) for the construction and future maintenance of the Lower Mission Creek Flood Control Project, Santa Barbara, California in December 1999. The Draft EIS/EIR was provided for your review along with the Section 401 WQC waiver request. A waiver from the Section 401 WQC was issued by your office by letter dated February 2, 2000 for the proposed construction and future maintenance based on Section 404(r) regulation. Section 404(r) regulation states that:

"The requirement to obtain Section 401 Water quality Certification for the project construction is waived if information on the effects of the discharge of dredged or fill material into waters of the United States, including the Section 404 analysis, is included in an EIS/EIR submitted to Congress before Congress authorizes the project or appropriates funds for construction."

The USACOE coordinated the proposed project with you during preparation of the Draft EIS/EIR. The Feasibility Report with the EIS/EIR will be submitted to Congress for re-authorization and appropriation of funds for construction. Therefore, a Section 401 Water Quality Certification would be waived.

The project design has been modified since the release of the Draft EIS/EIR. These modifications include: extension of the bypass culvert from 540 to 830 feet in length and a change in size and orientation of a weir to control the movement of water into the culvert. There would not be any additional impacts to the water resources due to implementation of these modifications. All environmental mitigation and commitments identified in the EIS/EIR would be implemented during the project construction and future maintenance. The USACOE has performed additional analysis for hydrology of the stream with the project and without the project, prepared detailed mitigation monitoring plan for the planted vegetation and significant resources located within the project area. The USACOE has revised Biological

Assessments (BA) for tidewater gobies and steelhead to incorporate revised project related information. The USACOE has submitted revised BA to both the National Marine Fisheries Service and the US Fish and Wildlife Service. The Corps is providing several relevant documents: Mitigation Monitoring Plan, Biological Assessment for tidewater gobies; Revised Project Description; Hydraulics/Engineering analysis; Biological Assessment for steelhead (*Oncohrynchus mykiss*), the project plans; and supporting plans and drawings for your information.

If you have any questions regarding the proposed project, please contact Ms. Joy Jaiswal of my staff at (213) 452-3871, or Dr. John Moeur at (213) 452-3874.

Thank you for issuing a waiver from the Section 401 Water Quality Certification for the proposed project construction and the future maintenance.

Sincerely,

Robert E. Koplin, P.E
Chief, Planning Division

Enclosures

California Regional Water Quality Control Board

Central Coast Region

Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

Internet Address: http://www.swrcb.ca.gov/~rwqcb3
81 Higuera Street, Suite 200, San Luis Obispo, California 93401-5427
Phone (805) 549-3147 • FAX (805) 543-0397

February 2, 2000

Mr. Robert E. Koplin, P.E.
Chief, Planning Division
Environmental Resources Branch
Los Angeles District, Corps of Engineers
Department of the Army
Post Office Box 532711
Los Angeles, CA 90053-2325

Dear Mr. Koplin:

WAIVER OF WASTE DISCHARGE REQUIREMENTS AND WAIVER OF WATER QUALITY CERTIFICATION, MAINTENANCE OF FLOOD CONTROL PROJECT, LOWER MISSION CREEK, SANTA BARBARA COUNTY

This letter responds to your December 20, 1999 request for Clean Water Act Section 401 certification that the proposed project described below will not violate State water quality standards:

Project Description:	Maintain project dedicated to providing flood control and to enhancing habitat
Receiving water body:	Lower Mission Creek
Filled or excavated area	Temporary disturbance of 1.2 miles of creek (approximately one acre)
Federal Permit:	This is an Army Corps project.
State Hydrologic Number:	315 (South Coast)
Mitigation:	None required

We hereby waive waste discharge requirements, pursuant to the waiver policy specified in Appendix A-23 of the *Water Quality Control Plan, Central Coast Basin*, adopted on November 17, 1989.

Pursuant to California Code of Regulations Section 3857, we will take no further action on your application. This letter is equivalent to a waiver of water quality certification. No further action on your part is required, unless substantial project changes could result in unmitigated adverse effects on water quality. Pursuant to Section 13260 of the Water Code, you must report such project changes to this Board. Subsequently, we may draft Waste Discharge Requirements for Board consideration.

If you have any questions, please call **Michael Higgins at (805) 542-4649 or e-mail him at mhiggins@rb3.swrcb.ca.gov.**

Sincerely,

for: Roger W. Briggs
Executive Officer

cc: U.S. Army Corps of Engineers, Ventura District
Marla Lafer, Division of Water Quality, State Water Resources Control Board
U.S. EPA, Region 9
bc: ch;

mlh/beach club road 124; Task: 10701; File: wq cert program

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

REPLY TO
ATTENTION OF:

December 20, 1999

Office of the Chief
Environmental Resources Branch

Mr. Mike Higgins
Associate Water Resource Control Engineer
California Regional Water Quality Control Board
81 Higuera Street, Suite 200
San Luis Obispo, California 93401

Dear Mr. Higgins:

The U.S. Army Corps of Engineers (USACOE) requests a waiver from the Section 401 Water Quality Certification (WQC) for the construction of the Lower Mission Creek Flood Control Project, Santa Barbara, California. The future maintenance is an integral part of the project features. Environmental analysis for each resource has been addressed for the life of the project in the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Therefore, no separate CEQA document would be required for future maintenance. Santa Barbara County would require a Section 401 Water Quality Certification for the future maintenance. Herewith, Santa Barbara County requests a Section 401 Water Quality Certification for future maintenance. A copy of the Draft Feasibility Report and Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) is also provided for detailed analysis of each environmental resource.

The study is limited to the final 1.2 miles of the creek, between Canon Perdido Street and Cabrillo Boulevard This study does not extend to the lagoon. The proposed project would provide 3400 cubic feet per second (cfs) of capacity and approximately a 20-year level of flood protection.

The USACOE has already initiated coordination with you regarding a waiver from the Section 401 WQC. Information related to Section 404(r) also has been provided. Section 404(r) regulation states that:

"The requirement to obtain Section 401 Water quality Certification for the project construction is waived if information on the effects of the discharge of dredged or fill material into waters of the United States, including the Section 404 analysis, is included in an EIS/EIR submitted to Congress before Congress authorizes the project or appropriates funds for construction."

The Feasibility Report with the EIS/EIR will be submitted to Congress for re-authorization and appropriation of funds for construction. Therefore, a Section 401 Water Quality Certification would be waived.

Project construction and future maintenance could result in temporary increases in turbidity, but would not exceed levels occurring during high flows or storm events. Mitigation measures would reduce impacts to below a level of significance. Mitigation measures include; construction during the dry season (April-November) when water flow is minimum, implementing "Best Management Practices" as required by the NPDES permit, monitoring to ensure turbidity levels remain within an acceptable range and others as described in Section 7 of the Draft EIS/EIR.

The USACOE has performed a modified Habitat Evaluation Procedure (HEP) analysis (Appendix C-Draft EIS/EIR) to quantify existing biological resources, and to analyze project related impacts to biological resources. Two Biological Assessments for the federally listed species, tidewater gobies (Appendix A-Draft EIS/EIR) were prepared to comply with the endangered species act, which identifies impacts to the federally listed species. The U.S. Fish and Wildlife Service Coordination Act Report (Appendix B-Draft EIS/EIR) would assist you in evaluating project related impacts to biological resources.

If you have any questions regarding the proposed project, please contact Ms. Joy Jaiswal of my staff at (213) 452-3871, or Dr. John Moeur at (213) 452-3874. If you have any questions on the Draft Feasibility Report, please contact Mr. Ed Demesa, (213) 452- 3796.

Your timely response of this request would be greatly appreciated.

Sincerely,

Thomas D. Fayram
Public Works Deputy Director

Sincerely,

Robert E. Koplin, P.E
Chief, Planning Division

Enclosure

Santa Barbara County Flood Control & Water Conservation District and Water Agency

123 E. Anapamu Street, Santa Barbara, California 93101
(805) 568-3440 Fax: (805) 568-3434
Web: http://www.publicworkssb.org/

Phillip M. Demery
Public Works Director

Thomas D. Fayram
Deputy Public Works Director

December 20, 1999

U.S. Army Corps of Engineers
Regulatory Branch
ATT: Mr. Jim Mace
2151 Alessandro Drive, Suite 255
Ventura, California 93001

Dear Mr. Mace:

The Santa Barbara County Flood control District requests a 404 permit for annual routine maintenance activities on the Lower Mission Creek Flood Control Project. The Lower Mission Creek Project is a Federal project with the City and County Flood Control District acting as local co-sponsors. The Corps has closely coordinated this project with Corps Regulatory and all of the other State and Federal Regulatory Agencies (CA Fish & Game, USFWS, NMFS, EPA, etc.). As such, Regulatory Staff, as well as staff from all of the interested Agencies have already had significant input into the project and presumably have had their comments incorporated. A 404 permit is not required for the construction of the Lower Mission Creek Flood Control Project as it is a Federal Project and is exempt from such permitting, however, a 404 (b)(1) analysis was completed and is included in the draft EIS/EIR. You should have received a copy of the EIS/EIR for your LA District Offices.

To ensure and maintain its design function and form, some maintenance to preserve the design capacity of the channel would be needed on a regular basis. The Corps has proposed that any areas where sediment deposition and/or vegetation growth causes a reduction of 15% of the channel capacity, channel maintenance would be performed to maintain the capacity of the project reach. Future maintenance would also include maintenance of the structures such as cleaning of oxbow by-pass culverts, repair of vertical concrete walls and riprap, and maintenance of planted vegetation. It is estimated that the average frequency of sediment removal would be at an interval as often as once a year. However, when several low-flow years occur sequentially, sediment removal might occur every two to three or more years. Flood flows, debris accumulation and removal would continue to impact channel vegetation and aquatic resources. Over time, pools and riffles that provide aquatic habitat would reestablish in the channel. Impact analysis for future maintenance is included in each resource and is discussed in the EIS/EIR. Impacts related to maintenance activities are addressed in Chapters 6 through19. Mitigation measures for future operation and maintenance for the life of the project are included in the EIS/EIR.

Routine channel maintenance would not occur between December and March, to avoid impacts to

steelhead and other sensitive species, when significant amounts of water are flowing in the channel.

The County, as the local sponsor, has insisted, and the Corps has assured, that the Public Review of this 404 Maintenance Application will be coincident with the public review of the project itself. Please forward the notice as soon as you make it available.

If you have any questions regarding the proposed project, please contact Ms. Joy Jaiswal the Corps Environmental Manager, at (213) 452-3871 or myself at (805) 568-3435. Your timely response of this request would be greatly appreciated.

Sincerely,

Thomas D. Fayram
Deputy Public Works Director
Water Resources Division

CC: Pat Kelley – City Engineer, City of Santa Barbara
Ed Demesa – Project Manager, USACE
Dave Castenon – USACOE Regulatory - Ventura

PUBLIC NOTICE

US Army Corps of Engineers®

APPLICATION FOR PERMIT

LOS ANGELES DISTRICT

Public Notice/Application No.:	200000660-JEM
Comment Period:	**February 25, 2000** through **March 26, 2000**
Project Manager:	James E. Mace (805) 641-0301

Applicant

Santa Barbara County Flood Control & Water Conservation District
123 East Anapamu Street
Santa Barbara, California 93101-2025

Contact

Thomas D. Fayram
Deputy Public Works Director
Water Resources Division

Location

The project is located in lower Mission Creek in the City of Santa Barbara, Santa Barbara County, California. Please see attached location map.

Activity

To conduct annual routine maintenance activities on the Lower Mission Creek Flood Control Project. For more information see page 3 of this notice.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). Interested parties are invited to provide their views on the proposed work, which will become a part of the record and will be considered in the decision. This permit will be issued or denied under Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1344). Comments should be mailed to:

U.S. Army Corps of Engineers
Regulatory Branch Field Office
ATTN: CESPL-CO-RV-200000660-JEM
2151 Alessandro, Suite 255
Ventura, CA 93001

Alternatively, comments can be sent electronically to: **jmace@spl.usace.army.mil**

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR 230) as required by Section 404 (b)(1) of the Clean Water Act.

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 activity. 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 endangered 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 Impact 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.

'reliminarv Review of Selected Factors

EIS Determination- A draft EIS has already been prepared for both construction and maintenance of the flood control facility. The draft EIS/EIR for the Lower Mission Creek Flood Control and Feasibility Study was released by the Corps of Engineers in December, 1999.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance. For any proposed activity on Tribal land that is subject to Section 404 jurisdiction, the applicant will be required to obtain water quality certification from the U.S. Environmental Protection Agency. A waiver of waste discharge requirements and waiver of water quality certification from the California Regional Water Quality Control Board were obtained on February 2, 2000.

Coastal Zone Management- The applicant has certified that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management Program. The District Engineer hereby requests the California Coastal Commission's concurrence or nonconcurrence.

Cultural Resources- Several properties along mission creek are listed in the latest version of the National Register of Historic Places (please see draft EIS/EIR Lower Mission Creek Flood Control and Feasibility Study, December, 1999). The Corps is resolving these issues through the EIS/EIR process.

Endangered Species- The proposed activity may effect two federally endangered fish species, the tidewater goby (*Eucyclogobius newberryi*) and steelhead (*Oncorhyncus mykiss*). Therefore, formal

consultation under Section 7 of the Endangered Species Act is required and a Corps permit will not be issued until the consultation has been completed.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

To conduct routine flood control maintenance activities that involve a discharge of dredged or fill material into Corps jurisdictional areas in the Lower Mission Creek Flood Control Project. Routine maintenance activities for this project include streambed maintenance (brushing, spraying, and shaping/desilting of the earthen channel); maintenance of the concrete channel walls and maintenance/stabilization of the channel banks; box culvert maintenance; interior drainage maintenance (storm drains, pipes, etc.); and habitat expansion zone maintenance. *Of these activities, a Section 404 of the Clean Water Act permit is typically not required for brushing and spraying the earthen channel, maintenance of the interior drainage system, or maintenance associated with re-planting failed native trees in the habitat expansion zones.*

The following is a summary of the regulated maintenance activities:

Streambed Maintenance--Shaping/Desilting

Maintenance of the streambed would address vegetation control, desilting and shaping.
Vegetation control would be accomplished by either brushing, spraying, or clearing. Clearing would be done using mechanical equipment, such as a dozer. Partial removal of vegetation would occur yearly. The removal would follow a mosaic pattern, wherein one half of the streambed would be cleared. The remaining half would then be cleared the following year. The alternate clearing process would be repeated for subsequent years.
Desilting is necessary where sedimentation significantly reduces the cross-section of a creek. Desilting is typically done with a dozer or loader working in the bottom of the channel pushing the accumulated sediment to an area where the material can be loaded directly into trucks driving on the channel bottom or to an area where a crane can access the material which is then loaded into trucks and hauled to a suitable disposal site. It is sometimes possible for lesser amounts of sediment to be placed on the channel banks (e.g. for bank maintenance).
Channel shaping may be desirable to create a low flow channel with aquatic habitat features that also provides for efficient sediment transport. Shaping is typically done with a dozer working on the channel bottom. The dozer creates a 10'-15' wide pilot channel with material placeded along the sides to a height of approximately 2'. Depressions are established within the pilot channel in areas where pools are expected to form to provide refuge for aquatic species. The pilot channel consolidates the lower flows so that broad shallow flows are limited. This provides for efficient sediment transport in lower flows reducing the frequency of desilting.

Channel Wall Maintenance

Channel wall maintenance is necessary when there is cracking, chipping, or breaking of the concrete to an extent which might affect the stability of the wall or its watertightness, or loss of or damage to backfill behind the wall. Normally, eroded concrete is repaired by sandblasting the area and matching the decorative treatment with the appropriate material.
Channel wall maintenance also includes cleaning weep holes and debris that may accumulate in front of weep holes, bridge piers, and splitter walls.

Channel Bank Maintenance

Channel bank maintenance is necessary when the earthen fill over the rip-rap is damaged or missing such that it does not encourage understory growth. In worst cases where >250 square feet of the bank are severely damaged by scour, erosion, or other means, replacement is often necessary through the use of filter fabric, rip-rap, earthen fill, and plants.

Channel bank maintenance also includes keeping access ramps clear of debris and obstructions and planted with native grass. Obstructive debris on channel banks is typically removed or chopped and left in place prior to the rainy season. Damage to fencing and rails along the top of the channel banks is typically repaired as soon as possible. Non-native vegetation is typically controlled with herbicide and/or removed.

Box Culvert Maintenance

Box culvert maintenance is typically necessary when there is cracking, chipping, or breaking of the concrete to an extent which might affect the stability of the culvert or its watertightness, or sufficient sediment and/or obstructions have accumulated within the culvert to significantly impair its design flow. Box culvert maintenance also includes cleaning weep holes and debris that may accumulate in front of weep holes.

Sediment and/or obstruction removal is usually conducted by pushing the material to the inlet and/or outlet where it can be removed with a crane or excavator.

Additional Project Information

The construction of the Lower Mission Creek Project is to be conducted by the Corps of Engineers, and as such, does not require a Section 404 of the Clean Water Act permit (CWA). However, a 404(b)(1) analysis of the construction was completed and is included in the draft EIS/EIR.

Upon completion of construction, the responsibility for maintenance of the project will be transferred to the local sponsor (Santa Barbara County Flood Control and Water Conservation District and Water Agency), which will then be required to have a Section 404 CWA permit for activities that will involve a discharge of dredged or fill material into jurisdictional waters of the United States.

The proposed permit would authorize maintenance activities for twenty years, and would be subject to review and a Notice to Proceed from the Corps after ten years. The project, as proposed in the draft EIS/EIR, is self-mitigating for both construction and maintenance activities.

Proposed Special Conditions

1. The Permittee shall abide by all Special Conditions and/or Terms and Conditions of any Incidental Take Statement as stipulated for compliance with any Section 7 of the Endangered Species Act (ESA) process.

2. The Permittee shall obtain and comply with federal consistency certification concurrence, or waiver thereof, from the California Coastal Commission (CCC).

3. As outlined in the Environmental Commitments in the EIS/EIR, the growth rates of all plantings in association with mitigation for the maintenance activities shall be monitored for the first five years. Reports describing the mitigation success, or lack of, shall be submitted to the Corps Regulatory Branch annually for the first five years. If the Corps determines the shrubs and trees do not meet predetermined

growth and survival rates, the Permittee may be required to re-plant, increase irrigation and/or fertilization, or take the appropriate remedial measures. Only native plants shall be used for revegetation.

4. The Permittee shall inform and coordinate with the California Department of Transportation concerning any maintenance activities that occur at or in the vicinity of any bridge or other structure for which the Department of Transportation is responsible.

5. The Permittee shall conduct annual spring inspections of the project site in conjugation with the District's Annual Maintenance Plan (DAMP). Regulated maintenance needs for the project shall be described in the DAMP. Based on the results of inspections and project monitoring, performance standards shall be developed to better determine conditions under which maintenance needs to be conducted. Performance standards for conveyance, maintenance, habitat functions and values, and aesthetics shall be established and described in the DAMP. Future maintenance shall consider pre-determined performance standards for these issues prior to development of the DAMPs.

6. The Permittee shall conduct wildlife surveys in conjunction with the spring inspections as well as immediately prior to maintenance activities. If applicable, the surveys shall be conducted at the most appropriate time of year to determine what, if any, sensitive species would likely be affected by maintenance activities. If available, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and California Department of Fish and Game (CDFG) approved survey protocol/methods shall be used for sensitive species to the maximum extent practicable.

7. The Permitee's pre-maintenance wildlife surveys shall be provided to the Corps annually. Documentation shall include location and description of area surveyed, time and date of survey, all survey methods used, name of biologist completing the surveys, and all sensitive species observed during the survey. If trout are observed during the survey, the documentation shall include estimated abundance, developmental stage (i.e. parr, smolt, adult), size, and habitat use and behavioral observations of all trout observed. Information regarding observed trout shall be forwarded to both CDFG and NMFS.

8. If any previously undiscovered federally listed endangered or threatened species or species proposed for listing, or proposed/critical habitat areas, are identified as potentially being affected during any pre-maintenance wildlife survey, the maintenance shall not proceed until either formal or informal consultation under Section 7 of the ESA has been completed with either USFWS or NMFS. In instances where an endangered or threatened species, or species proposed for listing, is found, the Permittee shall forward a copy of the findings to the Corps, USFWS, CDFG, and NMFS.

9. No discharge of dredged or fill material may consist of unsuitable material (e.g. trash, debris, etc.), material discharged must be free of toxic pollutants in toxic amounts (see Section 307 of the CWA), and discharges must not permanently restrict or impede the passage of normal or expected high flows.

For additional information please call James E. Mace of my staff at (805) 641-0301. This public notice is issued by the Chief, Regulatory Branch.

APPENDIX - F

WATER QUALITY AND SEDIMENT SAMPLING ANALYSIS TABLES LOWER MISSION CREEK FLOOD CONTROL PROJECT SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

Table 1
Constituents/Analytical Methods

Constituent (Analyte)	Analytical Method for Sediments	Analytical Method for Water
Total Recoverable Oil and Grease	EPA 413.2	EPA 413.2 (I.R)
Total Recoverable Petroleum Hydrocarbons	EPA 418.1	EPA 418.1(I.R.) W/ Clean Up
Metals and Non Metals		
Arsenic	EPA 6010	EPA 200.7
Cadmium	EPA 6010	EPA 200.7
Chromium	EPA 6010	EPA 200.7
Copper	EPA 6010	EPA 200.7
Lead	EPA 6010	EPA 200.7
Mercury	EPA 7471	EPA 7470
Nickel	EPA 6010	EPA 200.7
Selenium	EPA 6010	EPA 200.7
Silver	EPA 6010	EPA 200.7
Zinc	EPA 6010	EPA 200.7
Physical and Conventional Tests		
Percent Moisature (%)	EPA 160.3	EPA 376.2
Soluable Sulfide	EPA 9030	EPA 415.1
Total Organic Carbon	EPA 9060A Mod.	EPA
Total Sulfide	EPA 9030	EPA 376.2
Organics	EPA GC/FPD	EPA GC/FPD
Tributyltin		

Table 1
Constituents/Analytical Methods
(Continued)

Constituent (Analyte)	Analytical Method for Sediments	Analytical Method for Water
Organochlorine Pesticides	EPA 3550/8081A	EPA 3550/8081A
Aldrin		
alpha-BHC		
beta-BHC		
delta-BHC		
gamma-BHC		
Chlordane		
4,4'-DDD		
4,4'-DDD		
4,4'-DDD		
Dieldrin		
Endosulfan I		
Endosulfan II		
Endosulfan Sulfate		
Endrin		
Endrin aldehyde		
Heptachlor		
Heptachlor epoxide		
Methoxychlor		
Toxaphene		
Polychlorinated Biphenyls	EPA 3550/8082	EPA 3550/8082
Aroclor 1016		
Aroclor 1221		
Aroclor 1232		
Aroclor 1242		
Aroclor 1248		
Aroclor 1254		
Aroclor 1260		

Table 1
Constituents/Analytical Methods
(Continued)

Constituent (Analyte)	Analytical Method for Sediments	Analytical Method for Water
Polynuclear Aromatic Hydrocarbons	EPA 3550/8310	EPA 3510/8310
Acenaphthene		
Acenaphthyene		
Anthracene		
Benz(a)anthracene		
Benzo(a) pyrene		
Benzo(b)fluoranthene		
Benzo(g,h,i)perylene		
Benzo(k)fluoranthene		
Chrysene		
Dibenz(a,h)anthracene		
Fluoranthene		
Fluorene		
Ideno (1,2,3-cd)pyrene		
Naphthalene		
Phenanthrene		
Pyrene		

Table 3
Water Analyses
Location 1

Constituent (Analyte)	Analytical Method	Reporting Limit mg/L (ppm)	Sample No. 1 Result mg/L (ppm)	Sample No. 2 Result mg/L (ppm)
Total Recoverable Oil and Grease	EPA 413.2 (I.R)	1.0	N. D.	1
Total Recoverable Petroleum Hydrocarbons	EPA 418.1(I.R.) W/ Clean Up	1.0	N. D.	1
Metals and Non Metals				
Arsenic	EPA 200.7	0.0050	N. D.	N.D.
Cadmium	EPA 200.7	0.0050	N. D.	N.D.
Chromium	EPA 200.7	0.0050	N. D.	N.D.
Copper	EPA 200.7	0.010	N. D.	N.D.
Lead	EPA 200.7	0.0050	0.0090	N.D.
Mercury	EPA 7470	0.0002	N. D.	N.D.
Nickel	EPA 200.7	0.010	N. D.	N.D.
Selenium	EPA 200.7	0.0050	N. D.	N.D.
Silver	EPA 200.7	0.010	N. D.	N.D.
Zinc	EPA 200.7	0.020	N. D.	N.D.
Physical and Conventional Tests				
Soluable Sulfide	EPA 376.2	0.10	N. D.	N.D.
Total Organic Carbon	EPA 415.1	1.0	4.3	12
Total Sulfide	EPA 376.2	0.1	N. D	N.D.
Organics	**EPA GC/FPD**	**ng/L (ppt)**	**ng/L (ppt)**	**ng/L (ppt)**
Tributyltin		2.0	3.7	N.D.

Table 3
(Continued)
Water Analyses
Location 1

Constituent (Analyte)	Analytical Method	Reporting Limit µg/L (ppb)	Sample No.1 Result µg/L (ppb)	Sample No.2 Result µg/L (ppb)
Organochlorine Pesticides	**EPA 3550/8081A**			
Aldrin		0.10	N. D.	N. D.
alpha-BHC		0.10	N. D.	N. D.
beta-BHC		0.10	N. D.	N. D.
delta-BHC		0.25	N. D.	N. D.
gamma-BHC		0.10	N. D.	N. D.
Chlordane		2.0	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
Dieldrin		0.10	N. D.	N. D.
Endosulfan I		0.10	N. D.	N. D.
Endosulfan II		0.10	N. D.	N. D.
Endosulfan Sulfate		0.50	N. D.	N. D.
Endrin		0.10	N. D.	N. D.
Endrin aldehyde		0.10	N. D.	N. D.
Heptachlor		0.10	N. D.	N. D.
Heptachlor epoxide		0.10	N. D.	N. D.
Methoxychlor		0.10	N. D.	N. D.
Toxaphene		4.0	N. D.	N. D.
Polychlorinated Biphenyls	**EPA 3510/8082**			
Aroclor 1016		1.0	N. D.	N. D.
Aroclor 1221		1.0	N. D.	N. D.
Aroclor 1232		1.0	N. D.	N. D.
Aroclor 1242		1.0	N. D.	N. D.
Aroclor 1248		1.0	N. D.	N. D.
Aroclor 1254		1.0	N. D.	N. D.
Aroclor 1260		1.0	N. D.	N. D.

Table 3
(Continued)
Water Analyses
Location 1

Constituent (Analyte)	Analytical Method	Reporting Limit µg/L (ppb)	Sample No. 1 Result µg/L (ppb)	Sample No. 2 Result µg/L (ppb)
Polynuclear Aromatic Hydrocarbons	EPA 3510/8310			
Acenaphthene		0.50	N. D.	2
Acenaphthyene		0.50	N. D.	N. D.
Anthracene		0.020	N. D.	N. D.
Benz(a)anthracene		0.020	N. D.	0.055
Benzo(a) pyrene		0.020	N. D.	N. D.
Benzo(b)fluoranthene		0.020	N. D.	N. D.
Benzo(g,h,i)perylene		0.050	N. D.	N. D.
Benzo(k)fluoranthene		0.020	N. D.	N. D.
Chrysene		0.050	N. D.	N. D.
Dibenz(a,h)anthracene		0.050	N. D.	N. D.
Fluoranthene		0.050	N. D.	N. D.
Fluorene		0.50	N. D.	N. D.
Ideno(1,2,3-cd)pyrene		0.20	N. D.	N. D.
Naphthalene		0.50	N. D.	N. D.
Phenanthrene		0.050	N. D.	0.39
Pyrene		0.050	N. D.	N. D.

Table 4
Water Analyses
Location 2

Constituent (Analyte)	Analytical Method	Reporting Limit mg/L (ppm)	Sample Result No. 1 mg/L (ppm)	Sample Result No. 2 mg/L (ppm)
Total Recoverable Oil and Grease	EPA 413.2 (I.R)	1.0	1	N. D.
Total Recoverable Petroleum Hydrocarbons	EPA 418.1(I.R.) W/ Clean Up	1.0	1	N. D.
Metals and Non Metals				
Arsenic	EPA 200.7	0.0050	N. D.	N. D.
Cadmium	EPA 200.7	0.0050	N. D.	N. D.
Chromium	EPA 200.7	0.0050	N. D.	N. D.
Copper	EPA 200.7	0.010	N. D.	N. D.
Lead	EPA 200.7	0.0050	N. D.	N. D.
Mercury	EPA 7470	0.00020	N. D.	N. D.
Nickel	EPA 200.7	0.010	N. D.	N. D.
Selenium	EPA 200.7	0.0050	N. D.	N. D.
Silver	EPA 200.7	0.010	N. D.	N. D.
Zinc	EPA 200.7	0.020	N. D.	N. D.
Physical and Conventional Tests				
Soluable Sulfide	EPA 376.2	.10	N. D.	N. D.
Total Organic Carbon	EPA 415.1	1.0	3.9	17
Total Sulfide	EPA 376.2	.10	N. D	N. D
Organics	EPA GC/FPD	ng/L (ppt)	ng/L (ppt)	ng/L (ppt)
Tributyltin		2.0	4.2	N/A

Table 4
(Continued)
Water Analyses
Location 2

Constituent (Analyte)	Analytical Method	Reporting Limit µg/L (ppb)	Sample No. 1 Result µg/L (ppb)	Sample No. 2 Result µg/L (ppb)
Organochlorine Pesticides	**EPA 3550/8081A**			
Aldrin		0.10	N. D.	N. D.
alpha-BHC		0.10	N. D.	N. D.
beta-BHC		0.10	N. D.	N. D.
delta-BHC		0.25	N. D.	N. D.
gamma-BHC		0.10	N. D.	N. D.
Chlordane		2.0	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
Dieldrin		0.10	N. D.	N. D.
Endosulfan I		0.10	N. D.	N. D.
Endosulfan II		0.10	N. D.	N. D.
Endosulfan Sulfate		0.50	N. D.	N. D.
Endrin		0.10	N. D.	N. D.
Endrin aldehyde		0.10	N. D.	N. D.
Heptachlor		0.10	N. D.	N. D.
Heptachlor epoxide		0.10	N. D.	N. D.
Methoxychlor		0.10	N. D.	N. D.
Toxaphene		4.0	N. D.	N. D.
Polychlorinated Biphenyls	**EPA 3510/8082**			
Aroclor 1016		1.0	N. D.	N. D.
Aroclor 1221		1.0	N. D.	N. D.
Aroclor 1232		1.0	N. D.	N. D.
Aroclor 1242		1.0	N. D.	N. D.
Aroclor 1248		1.0	N. D.	N. D.
Aroclor 1254		1.0	N. D.	N. D.
Aroclor 1260		1.0	N. D.	N. D.

Table 4
(Continued)
Water Analyses
Location 2

Constituent (Analyte)	Analytical Method	Reporting Limit µg/L (ppb)	Sample No. 1 Result µg/L (ppb)	Sample No. 2 Result µg/L (ppb)
Polynuclear Aromatic Hydrocarbons	**EPA 3510/8310**			
Acenaphthene		0.50	N. D.	N. D.
Acenaphthyene		0.50	N. D.	N. D.
Anthracene		0.020	N. D.	N. D.
Benz(a)anthracene		0.020	N. D.	N. D.
Benzo(a) pyrene		0.020	N. D.	N. D.
Benzo(b)fluoranthene		0.020	N. D.	N. D.
Benzo(g,h,i)perylene		0.050	N. D.	N. D.
Benzo(k)fluoranthene		0.020	N. D.	N. D.
Chrysene		0.050	N. D.	N. D.
Dibenz(a,h)anthracene		0.050	N. D.	N. D.
Fluoranthene		0.050	N. D.	N. D.
Fluorene		0.50	N. D.	N. D.
Ideno(1,2,3-cd)pyrene		0.20	N. D.	N. D.
Naphthalene		0.50	N. D.	N. D.
Phenanthrene		0.050	N. D.	N. D.
Pyrene		0.050	N. D.	N. D.

Table 5
Water Analyses
Location 3

Constituent (Analyte)	Analytical Method	Reporting Limit mg/L (ppm)	Sample No. 1 Result mg/L (ppm)	Sample No. 2 Result mg/L (ppm)
Total Recoverable Oil and Grease	EPA 413.2 (I.R)	1.0	N. D.	1
Total Recoverable Petroleum Hydrocarbons	EPA 418.1(I.R.) W/ Clean Up	1.0	N. D.	1
Metals and Non Metals				
Arsenic	EPA 200.7	0.0050	N. D.	N. D.
Cadmium	EPA 200.7	0.0050	N. D.	N. D.
Chromium	EPA 200.7	0.0050	N. D.	N. D.
Copper	EPA 200.7	0.010	N. D.	N. D.
Lead	EPA 200.7	0.0050	N. D.	N. D.
Mercury	EPA 7470	0.00020	N. D.	N. D.
Nickel	EPA 200.7	0.010	N. D.	N. D.
Selenium	EPA 200.7	0.0050	N. D.	N. D.
Silver	EPA 200.7	0.010	N. D.	N. D.
Zinc	EPA 200.7	0.020	N. D.	N. D.
Physical and Conventional Tests				
Soluable Sulfide	EPA 376.2	.10	N. D.	N. D.
Total Organic Carbon	EPA 415.1	1.0	3.9	11
Total Sulfide	EPA 376.2	.10	N. D	N. D
Organics	**EPA GC/FPD**	**ηg/L (ppt)**	**ηg/L (ppt)**	**ηg/L (ppt)**
Tributyltin		2.0	N/A	N/A

Table 5
(Continued)
Water Analyses
Location 3

Constituent (Analyte)	Analytical Method	Reporting Limit µg/L (ppb)	Sample No. 1 Result µg/L (ppb)	Sample No. 2 Result µg/L (ppb)
Organochlorine Pesticides	**EPA 3550/8081A**			
Aldrin		0.10	N. D.	N. D.
alpha-BHC		0.10	N. D.	N. D.
beta-BHC		0.10	N. D.	N. D.
delta-BHC		0.25	N. D.	N. D.
gamma-BHC		0.10	N. D.	N. D.
Chlordane		2.0	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
4,4'-DDD		0.10	N. D.	N. D.
Dieldrin		0.10	N. D.	N. D.
Endosulfan I		0.10	N. D.	N. D.
Endosulfan II		0.10	N. D.	N. D.
Endosulfan Sulfate		0.50	N. D.	N. D.
Endrin		0.10	N. D.	N. D.
Endrin aldehyde		0.10	N. D.	N. D.
Heptachlor		0.10	N. D.	N. D.
Heptachlor epoxide		0.10	N. D.	N. D.
Methoxychlor		0.10	N. D.	N. D.
Toxaphene		4.0	N. D.	N. D.
Polychlorinated Biphenyls	**EPA 3510/8082**			
Aroclor 1016		1.0	N. D.	N. D.
Aroclor 1221		1.0	N. D.	N. D.
Aroclor 1232		1.0	N. D.	N. D.
Aroclor 1242		1.0	N. D.	N. D.
Aroclor 1248		1.0	N. D.	N. D.
Aroclor 1254		1.0	N. D.	N. D.
Aroclor 1260		1.0	N. D.	N. D.

Table 5
(Continued)
Water Analyses
Location 3

Constituent (Analyte)	Analytical Method	Reporting Limit µg/L (ppb)	Sample No. 1 Result µg/L (ppb)	Sample No. 2 Result µg/L (ppb)
Polynuclear Aromatic Hydrocarbons	**EPA 3510/8310**			
Acenaphthene		0.50	N. D.	0.51
Acenaphthyene		0.50	N. D.	N. D.
Anthracene		0.020	N. D.	N. D.
Benz(a)anthracene		0.020	N. D.	N. D.
Benzo(a) pyrene		0.020	N. D.	N. D.
Benzo(b)fluoranthene		0.020	N. D.	N. D.
Benzo(g,h,i)perylene		0.050	N. D.	N. D.
Benzo(k)fluoranthene		0.020	N. D.	N. D.
Chrysene		0.050	N. D.	N. D.
Dibenz(a,h)anthracene		0.050	N. D.	N. D.
Fluoranthene		0.050	N. D.	N. D.
Fluorene		0.50	N. D.	N. D.
Ideno(1,2,3-cd)pyrene		0.20	N. D.	N. D.
Naphthalene		0.50	N. D.	N. D.
Phenanthrene		0.050	N. D.	0.074
Pyrene		0.050	N. D.	N. D.

Table 6
Sediment Analyses
Location S1

Constituent (Analyte)	Analytical Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Total Recoverable Oil and Grease	EPA 413.2 (I.R.)	5.0	75
Total Recoverable Petroleum Hydrocarbons	EPA 418.1(IR.) W/Clean Up	5.0	59
Metals and Non Metals			
Arsenic	EPA 6010	2.0	3.8
Cadmium	EPA 6010	0.50	N. D.
Chromium	EPA 6010	1.0	19
Copper	EPA 6010	1.0	13
Lead	EPA 6010	2.0	9.5
Mercury	EPA 7471	0.020	0.023
Nickel	EPA 6010	1.0	12
Selenium	EPA 6010	2.0	N. D.
Silver	EPA 6010	1.0	N. D.
Zinc	EPA 6010	5.0	44
Physical and Conventional Tests			
Percent Moisture (%)	EPA 160.3	N. A.	23
Soluable Sulfide	EPA 9030	1.0	N. D.
Total Organic Carbon	EPA 9060A Mod.	5,000	N. D.
Total Sulfide	EPA 9030	10	N. D
Organics	**EPA GC/FPD**	**ng/L (ppt)**	**ng/L (ppt)**
Tributyltin		1.0	N.D.

Table 6
(Continued)
Sediment Analyses
Location S1

Constituent (Analyte)	Analytical Method	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Organochlorine Pesticides	**EPA 3550/8081A**		
Aldrin		5.0	N. D.
alpha-BHC		5.0	N. D.
beta-BHC		5.0	N. D.
delta-BHC		10	N. D.
gamma-BHC		5.0	N. D.
Chlordane		100	N. D.
4,4'-DDD		5.0	N. D.
4,4'-DDD		5.0	N. D.
4,4'-DDD		5.0	N. D.
Dieldrin		5.0	N. D.
Endosulfan I		5.0	N. D.
Endosulfan II		5.0	N. D.
Endosulfan Sulfate		20	N. D.
Endrin		5.0	N. D.
Endrin aldehyde		5.0	N. D.
Heptachlor		5.0	N. D.
Heptachlor epoxide		5.0	N. D.
Methoxychlor		5.0	N. D.
Toxaphene		200	N. D.
Polychlorinated Biphenyls	**EPA 3550/8082**		
Aroclor 1016		50	N. D.
Aroclor 1221		50	N. D.
Aroclor 1232		50	N. D.
Aroclor 1242		50	N. D.
Aroclor 1248		50	N. D.
Aroclor 1254		50	N. D.
Aroclor 1260		50	N. D.

Table 6
(Continued)
Sediment Analyses
Location S1

Constituent (Analyte)	Analytical Method	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Polynuclear Aromatic Hydrocarbons	**EPA 3550/8310**		
Acenaphthene		50	N. D.
Acenaphthyene		50	N. D.
Anthracene		2.0	N. D.
Benz(a)anthracene		2.0	N. D.
Benzo(a) pyrene		2.0	N. D.
Benzo(b)fluoranthene		2.0	N. D.
Benzo(g,h,i)perylene		5.0	N. D.
Benzo(k)fluoranthene		2.0	N. D.
Chrysene		5.0	N. D.
Dibenz(a,h)anthracene		5.0	N. D.
Fluoranthene		5.0	N. D.
Fluorene		20	N. D.
Ideno(1,2,3-cd)pyrene		5.0	N. D.
Naphthalene		20	N. D.
Phenanthrene		5.0	N. D.
Pyrene		5.0	N. D.

Table 7
Sediment Analyses
Location S2

Constituent (Analyte)	Analytical Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Total Recoverable Oil and Grease	EPA 413.2	5.0	110
Total Recoverable Petroleum Hydrocarbons	EPA 418.1	5.0	76
Metals and Non Metals			
Arsenic	EPA 6010	2.0	3.5
Cadmium	EPA 6010	0.50	N. D.
Chromium	EPA 6010	1.0	15
Copper	EPA 6010	1.0	11
Lead	EPA 6010	2.0	6.3
Mercury	EPA 7471	0.020	N. D.
Nickel	EPA 6010	1.0	8.0
Selenium	EPA 6010	2.0	N. D
Silver	EPA 6010	1.0	N. D
Zinc	EPA 6010	5.0	38
Physical and Conventional Tests			
Percent Moisture (%)	EPA 160.3	N. A.	28
Soluable Sulfide	EPA 9030	1.0	N. D.
Total Organic Carbon	EPA 9060A	5,000	N. D.
Total Sulfide	EPA 9030	10	N. D
Organics	**EPA GC/PPD**	**ng/L (ppt)**	**ng/L (ppt)**
Tributyltin		1.0	N.D.

Table 7
(Continued)
Sediment Analyses
Location S2

Constituent (Analyte)	Analytical Method	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Organochlorine Pesticides	**EPA 3550/8081A**		
Aldrin		5.0	N. D.
alpha-BHC		5.0	N. D.
beta-BHC		5.0	N. D.
delta-BHC		10	N. D.
gamma-BHC		5.0	N. D.
Chlordane		100	N. D.
4,4'-DDD		5.0	N. D.
4,4'-DDD		5.0	N. D.
4,4'-DDD		5.0	N. D.
Dieldrin		5.0	N. D.
Endosulfan I		5.0	N. D.
Endosulfan II		5.0	N. D.
Endosulfan Sulfate		20	N. D.
Endrin		5.0	N. D.
Endrin aldehyde		5.0	N. D.
Heptachlor		5.0	N. D.
Heptachlor epoxide		5.0	N. D.
Methoxychlor		5.0	N. D.
Toxaphene		200	N. D.
Polychlorinated Biphenyls	**EPA 3550/8082**		
Aroclor 1016		50	N. D.
Aroclor 1221		50	N. D.
Aroclor 1232		50	N. D.
Aroclor 1242		50	N. D.
Aroclor 1248		50	N. D.
Aroclor 1254		50	N. D.
Aroclor 1260		50	N. D.

Table 7
(Continued)
Sediment Analyses
Location S2

Constituent (Analyte)	Analytical Method	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Polynuclear Aromatic Hydrocarbons	**EPA 3550/8310**		
Acenaphthene		50	N. D.
Acenaphthyene		50	N. D.
Anthracene		2.0	N. D.
Benz(a)anthracene		2.0	N. D.
Benzo(a) pyrene		2.0	N. D.
Benzo(b)fluoranthene		2.0	N. D.
Benzo(g,h,i)perylene		5.0	N. D.
Benzo(k)fluoranthene		2.0	N. D.
Chrysene		5.0	N. D.
Dibenz(a,h)anthracene		5.0	N. D.
Fluoranthene		5.0	N. D.
Fluorene		20	N. D.
Ideno(1,2,3-cd)pyrene		5.0	N. D.
Naphthalene		20	N. D.
Phenanthrene		5.0	N. D.
Pyrene		5.0	N. D.

Table 8
Sediment Analyses
Location S3

Constituent (Analyte)	Analytical Method	Reporting Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Total Recoverable Oil and Grease	**EPA 413.2**	5.0	270
Total Recoverable Petroleum Hydrocarbons	EPA 418.1	5.0	210
Metals and Non Metals			
Arsenic	EPA 6010	2.0	N. D.
Cadmium	EPA 6010	0.50	N. D.
Chromium	EPA 6010	1.0	9.3
Copper	EPA 6010	1.0	5.8
Lead	EPA 6010	2.0	12
Mercury	EPA 7471	0.020	0.028
Nickel	EPA 6010	1.0	5.7
Selenium	EPA 6010	2.0	N. D
Silver	EPA 6010	1.0	N. D
Zinc	EPA 6010	5.0	23
Physical and Conventional Tests			
Percent Moisture (%)	EPA 160.3	N. A.	30
Soluable Sulfide	EPA 9030	1.0	N. D.
Total Organic Carbon	EPA 9060A	5,000	5,800
Total Sulfide	EPA 9030	10	N. D
Organics	**EPA GC/FPD**	**ng/L (ppt)**	**ng/L (ppt)**
Tributylitin		1.0	N.D.

Table8
(Continued)
Sediment Analyses
Location S3

Constituent (Analyte)	Analytical Method	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Organochlorine Pesticides	**EPA 3550/8081A**		
Aldrin		5.0	N. D.
alpha-BHC		5.0	N. D.
beta-BHC		5.0	N. D.
delta-BHC		10	N. D.
gamma-BHC		5.0	N. D.
Chlordane		100	N. D.
4,4'-DDD		5.0	N. D.
4,4'-DDD		5.0	N. D.
4,4'-DDD		5.0	N. D.
Dieldrin		5.0	N. D.
Endosulfan I		5.0	N. D.
Endosulfan II		5.0	N. D.
Endosulfan Sulfate		20	N. D.
Endrin		5.0	N. D.
Endrin aldehyde		5.0	N. D.
Heptachlor		5.0	N. D.
Heptachlor epoxide		5.0	N. D.
Methoxychlor		5.0	N. D.
Toxaphene		200	N. D.
Polychlorinated Biphenyls	**EPA 3550/8082**		
Aroclor 1016		50	N. D.
Aroclor 1221		50	N. D.
Aroclor 1232		50	N. D.
Aroclor 1242		50	N. D.
Aroclor 1248		50	N. D.
Aroclor 1254		50	N. D.
Aroclor 1260		50	N. D.

Table 8
(Continued)
Sediment Analyses
Location S3

Constituent (Analyte)	Analytical Method	Reporting Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Polynuclear Aromatic Hydrocarbons	**EPA 3550/8310**		
Acenaphthene		50	N. D.
Acenaphthyene		50	N. D.
Anthracene		2.0	N. D.
Benz(a)anthracene		2.0	4.6
Benzo(a) pyrene		2.0	3.3
Benzo(b)fluoranthene		2.0	2.0
Benzo(g,h,i)perylene		5.0	N. D.
Benzo(k)fluoranthene		2.0	N. D.
Chrysene		5.0	7.3
Dibenz(a,h)anthracene		5.0	N. D.
Fluoranthene		5.0	20
Fluorene		20	N. D.
Ideno(1,2,3-cd)pyrene		5.0	N. D.
Naphthalene		20	N. D.
Phenanthrene		5.0	6.9
Pyrene		5.0	7.1

APPENDIX - G

AIR QUALITY ANALYSIS DATA
AND
RECORD OF NON-APPLICABILITY (RONA)

LOWER MISSION CREEK FLOOD CONTROL PROJECT
SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

RECORD OF NON-APPLICABILITY
FOR
LOWER MISSION CREEK FLOOD CONTROL IMPROVEMENT PROJECT
SANTA BARBARA COUNTY
SANTA BARBARA, CALIFORNIA

The study area is limited to the final 1.2 miles of channel upstream of the tidal estuary where Mission Creek reaches the Pacific Ocean. The proposed project will include improvement of the channel for 1.2 miles of the creek between Canon Perdido Street Bridge at the upstream end, and Cabrillo Boulevard Bridge near the outlet; replacement of five bridges; streamlining bedslope; installing a culvert that bypasses the oxbow; stabilizing creek banks using vertical walls and riprap sideslope; and planting of native vegetation along riprap. The creek width would range from 60 to 70 feet at the top. Average depth of the creek would be 8 to 12 feet throughout the project reach.

The Clean Air Act (CAA) as amended in 1990, specifies in Section 176© that no department, agency, or instrumentality of the Federal Government shall engage in, support in any way, or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan after it has been approved or promulgated under Section 110 of this title. "Conformity" is defined in Section 176© of the CAA as conformity to the State Implementation Plan's (SIPs) purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) while achieving expeditious attainment of such standards, and that the activities will not:

1. Cause or contribute to any new violation of the NAAQS; or

2. Increase the frequency or severity of any existing violation;

3. Delay timely attainment of a standard, interim emission reductions, or milestones.

Air quality standards in the area of Lower Mission Creek are under the jurisdiction of the Santa Barbara County Air Pollution Control District (APCD). The APCD acts as lead agency, responsible agency or a concerned agency with jurisdiction by law over the air resources of the County under the California Environmental Quality Act (CEQA). The 1998 Clean Air Plan (CAP) is the most recently adopted clean air plan for the Santa Barbara County.

Currently, the entire County of Santa Barbara violates the state and federal ambient one-hour standards for ozone and the state standard for PM10. The major sources of ozone precursor emissions in Santa Barbara County are motor vehicles, the petroleum industry and solvent usage. Sources of PM10 include mineral quarries, grading, demolition, agricultural tilling, road dust, and vehicle exhaust.

Estimation of air quality impacts was performed under the guidance of the SCAQMB using methods prescribed in the 1993 California Environmental Quality Act (CEQA) Air Quality Handbook published by the South Coast Air Quality Management District (SCAQMD). Although quantitative thresholds of significance are not currently in place for short-term emissions, CEQA requires that short-term impacts be discussed in the environmental document. These concerns are addressed in Chapter 8 of the Environmental Impact Statement (EIS). In the interest of public disclosure, APCD recommended that construction-related ROC, PM10 and Nox emissions from diesel and gasoline powered equipment, paving and other activities, be quantified.

To determine the significance of air quality impacts, daily thresholds were based on construction emission from South Coast Air Basin (SCAB) and Coachella Valley area. If emissions on an individual day exceed 75 lbs a day for ROC, or 100 lbs a day for Nox, or 550 lbs a day for CO, or 150 lbs a day for PM10, the project should be considered significant. Also, APCD requires that the construction emissions not exceed 25 tons per year.

Based on the air quality analysis described in tables G-1 through G-6, the proposed project will not have a significant air quality effect on the environment. The total emissions of each criteria pollutant are below *de minimus* levels as prescribed in 40 CFR 93.153(b). This proposed project conforms with the Federal Clean Air Act as amended 1990. As a result, this Record of Non-Applicability is prepared instead of a conformity determination.

For further information, please contact Mrs. Priscilla E. Perry, Civil Engineer, U.S. Army Corps of Engineers at (213) 452-3878.

31 Aug 00
Date

FOR [signature], LTC, EN
John P. Carroll
Colonel, Corps of Engineers
District Engineer

APPENDIX - G
LOWER MISSION CREEK FLOOD CONTROL PROJECT
AIR QUALITY EVALUATION METHODS

Evaluating the air quality impacts associated with the proposed Lower Mission Creek Flood Control Improvement Project can be separated into two separate analyses. First, would be the temporary, short-term emissions generated during project construction, which include exhaust emissions from heavy equipment operation associated with grading, and excavation activities and Personnel and Trucks commuting back and forth to the proposed site. Total excavated material will be 82,000 cubic yards. Material to be transported to disposal sites would be about 64,000 cubic yards. Second, would be fugitive emissions generated by the bulldozer operation and Trucks traveling on paved and unpaved roads. Each of these analyses are performed separately and then combined to arrive at total emission estimates related to both operations.

Exhaust and dust emissions due to project construction includes earth-fill material, concrete for walls, footings, and box culvert.

These exhaust emissions were estimated based on the type and number of construction equipment being operated and vehicle truck miles over a two year period. Dust emissions were estimated based on the earthwork (excavation, grading, and compaction).

Emission factors were obtained from the 1993 CEQA Air Quality Handbook (SCAQMD) using Tables A9-8-A,B,C,&D, A9-5-K-5 and A9-9-B, C, D, and F.

As requested by the Santa Barbara County Air Pollution Control District, construction-related ROC, PM_{10} and NOx emissions have been quantified and are presented herein. The impacts due to the new construction will not pose any significant impacts to the current air quality over the two-year period and will conform to the existing 1998 Clean Air Plan under the Santa Barbara Air Pollution Control District.

LOWER MISSION CREEK
AIR EMISSION DATA AND CALCULATIONS

1. Improvements to Lower Mission Creek. Disposal of 64,000 cy material

2. Type and Number of Construction Equipment to be used. All equipment will use diesel fuel.

2 – Graders	1 - Water Truck
4 - Bucket Excavators	1 – Roller
3 – Dozers	2 - Loaders

3. These calculations were based on the 1993 CEQA Air Quality Handbook emission factors and formulas assuming the following:

Initial Input Information:
Construction Phase: 18 months
21 working day per month for 8 hours per day
378 working days
30 personnel, 30 Vehicles
Source: CEQA handbook for emission factors and other activity assumptions.

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4. Fugitive emissions Calculation. Used table A9-9-F. Estimating emissions from bulldozing operations. Using Overburden and Moist soil from tables A9-9-F-1 and A9-9-F-2. It is assumed that all dozers will be working at one time.

Table G-1

Equipment	Number of Equipment	Hours of operations Per day	PM-10 lbs/day
Bulldozers	3	5	6.90
TOTAL (lbs/day)			6.90

EXAMPLE CALCULATION:
$E=([0.45 \times (\{[G]^{1.5}\}/\{[H]^{1.4}\})] \times I) \times J$: where G = 7.5, H = 15.0, J = hours of operation (5 hrs/day), I = 2.2046.
E = 2.30 lbs/day for one dozer. It is assumed that the Dozers will operate 60% of the time; or 5 hrs/day each.

5. Estimating Fugitive emissions for Vehicle Miles Traveled for construction personnel. It is assumed that 30 personnel will work and 30 Vehicles used. Personnel will commute from approximately 20 miles one-way.

V=W x (X/Y) x Z; Where V=VMT, W=Distance, X=number of vehicles, Y=1 hour, Z= estimated travel time

VMT= 40 miles/day x (60/hr) x 1 hr = 2,400 miles per day

6. Estimating fugitive emissions from passenger Vehicle Travel on Paved Roads

E = V x F(w/o street cleaning); where E= emissions for passenger vehicles; V= VMT; F = 0.00065 for freeways

E = 2400 miles/day x 0.00065 lbs/mile = 1.56 lbs/day

7. Estimating Fugitive emissions for Vehicle Miles Traveled for Trucks. It is assumed that 17 trucks will be used. Distance will be 25 miles for on roads and .25 miles for off roads.

V=W x (X/Y) x Z; Where V=VMT, W=Distance, X=number of trucks, Y=1 hour, Z= estimated travel time

VMT = 50 miles/day x (17/hr) x 0.5 hr = 425 miles per day

8. Estimating emissions from truck travel on paved roads.

E = V x F; where E = emissions for trucks; V = VMT; F = $0.77 \times ([G \times 0.35])^{0.3}$ lbs/mile; where G = 0.022 for freeway.

E = 425 miles/day x 0.18 lbs/miles = 76.5 lbs/day

9. Estimating Emissions from vehicle travel on unpaved roads

V=W x (X/Y) x Z; Where V=VMT, W=Distance, X=number of trucks, Y=1 hour, Z= estimated travel time

V = 0.5 miles/day x (17/hr) x 0.5 hr = 4.25 miles per day

FOR TRUCKS

E = V x F; where E = emissions for vehicle travel; V = VMT; F = emission factor
$F = 2.1 \times [G/12] \times [H/30] \times \{[I/3]^{0.7}\} \times \{[J/4]^{0.5}\} \times \{[365 - K]/365\}$ lbs/miles; where G = 28; H = 15 miles/hr; I = 10,000 lbs/2000 lbs = 5 tons; J = 6; K = precipitation Conditions in days = 34

F = 2.1 x 2.33 x 0.5 x 1.43 x 1.22 x 0.91 = 3.88 lbs/miles

Therefore, E = 12.50 miles/day x 3.88 lbs/miles = 16.49 lbs/day for Trucks

Table G-2

10. Total Fugitive Emissions

TYPE OF VEHICLE	NUMBER OF VEHICLES	VMT/DAY (on-road)	VMT/DAY (off-road)	EMISSIONS (on-road) (lbs/day)	EMISSIONS (off-road) (lbs/day)
Personnel	30	2,400	-0-	1.56	-0-
Trucks	17	1,700	340	76.50	16.49
Equipment					6.90
Total emissions				78.06	23.39

11. Hourly exhaust emissions table: Equipment emissions factors are taken from Table A9-8-A and A9-8-B,C,D. It is assumed that the graders will work 50% of the time; excavators 40%; loaders 50%; truck and roller will operate full time. Used Table A9-8-B,C,D for Excavators. Used miscellaneous type under A9-8-A for water truck. This method is more conservative when there are unknowns.

Table G-3

Emission Calculations: E=(FxG)xH; where F=Numbers, G=Hours, H=Emission factor

Equipment Type	Numbers	Hours of Operation	CO lb/day	ROC lb/day	NOx lb/day	SOx lb/day	PM10 lb/day
Graders	2	4	1.21	0.31	5.70	0.69	0.49
Bucket excavators	4	3	4.29	0.39	9.36	0.78	0.58
Water Truck	1	8	5.40	1.20	13.6	1.14	1.12
Rollers	1	8	1.24	0.27	3.60	0.28	0.21
Loaders	2	4	1.61	0.76	6.64	0.61	0.47
TOTALS (lbs/day)	--------	---------	13.75	2.93	38.90	3.50	2.87

Example Calculation for Grader: Emission factors are taken from Table A9-8-A under the diesel column. Emission Calculations: E=(FxG)xH; where F=Numbers, G=Hours, H=Emission factor. Total hours of construction operation = 4 hrs/day. Grader will work 50% of the time = 4 hrs. Since there are two Graders, then 4 x 2 = 8 hrs of operation/day.

E=(2)x(4 hrs/day)x(0.151 lb/hr) = 1.21 lb/day

Example Calculation for Excavator: Used Table A9-8-B,C,D

E=(FxG)x(KxLxM); where F= Numbers, G=Hours, L=Emission Factor, K= horsepower, M=Load factor divided by 100.

E=(4 x 3 Hrs/dy)(56 Hp x.011 lb/Hp-Hr x 58/100) = 4.29 lbs/day

12. <u>Vehicle Exhaust Emissions Due to Transport of 64,000 cy material to Construction Site via On-Road Trucks</u>.

Volume of Material needed (cy)	64,000
Truck hauling Capacity (cy)	30
Truck Weigh	> 6K
Number of Trucks used	17
Project time (Months)	18
Travel Distance (miles/Trip)	
On-Road (one way)	25
Off-Road (one way)	5
Speed (mph)	
On-Road	55
Off-Road	35
Work Area:	2
Year:	1999
Table:	A9-5-k-5
Cold Starts:	100%
Hot Start	0%

Total # of Trips Required = 2,130
Vol of material hauled per day = 510 cy
# of trips required per day = 17
Vehicle miles traveled per day
On-Road = 425 miles/day
Off-road = 85 miles/day

Table G-4

Off-Road Emission Factors (gram/mile)

Activity	PM-10	CO	ROC	Nox	Sox	Pb
Exhaust + Evaporative	0.28	8.05	0.99	4.45	0.31	0.0007
Tire Wear	0.19					
Cold Start		33.18	2.36	1.97		
Hot Start		3.69	0.68	0.97		
Hot Soak			0.62			
Diurnal			2.32			

Off-Road Emission (lb/day)

Activity	PM-10	CO	ROC	Nox	Sox	Pb
Travel Emissions	0.08	1.51	0.19	0.83	0.06	0.0001
Cold Start		1.24	0.09	0.07		
Hot Start		0.0	0.0	0.0		
Hot Soak			0.02			
Diurnal			0.09			
Totals	0.08	2.75	0.39	0.90	0.06	0.0001

Table G-5

On-Road Emission Factors (gram/mile)

Activity	PM-10	CO	ROC	Nox	Sox	Pb
Exhaust + Evaporative	0.28	7.25	0.67	5.53	0.31	0.0007
Tire Wear	0.19					
Cold Start		33.18	2.36	1.97		
Hot Start		3.69	0.68	0.97		
Hot Soak			0.62			
Diurnal			2.32			

On-Road Emission (lb/day)

Activity	PM-10	CO	ROC	Nox	Sox	Pb
Travel Emissions	0.44	6.79	0.63	5.18	0.29	0.0007
Cold Start		1.24	0.09	0.07		
Hot Start		0.0	0.0	0.0		
Hot Soak			0.02			
Diurnal			0.09			
Totals	0.44	8.03	0.83	5.25	0.29	0.0007

Travel emissions: [(emission factors (Exhaust+Tire wear)) x (Distance traveled(VMT))]/(454 grams/lbs)
Cold start: [(#vehicles) x (Cold start emission factor)]/454 gram/lbs)
Hot Start emissions: [(# daily trips) –(# of vehicles)] x (Hot start emission factor)/454 gram/lbs)
Hot soak emissions: (# daily trips) x (Hot soak emission factor)/454 grams/lb)
Diurnal Emissions: (#Vehicles) x (Diurnal emission factor)/454 grams/lbs)
VMT per day: (#Trips per day) x (One-way Trip Distance x 2)

13. Total project emissions.

Table G - 6

Source	PM-10	CO	ROC	NOx	SOx	Pb
Exhaust	3.39	25.99	4.33	45.47	3.88	-------
Fugitives	101.45					
Daily Totals (lbs/day)	104.84	25.99	4.33	45.47	3.88	
Daily Thresholds (lbs/day)	150	550	75	100	150	
Number of construction days per two year	378	378	378	378	378	
Total Project (lbs/yr)	19,814.76	4,912.11	818.37	8,593.83	733.32	
Total Project (ton/yr)	9.90	2.46	0.41	4.30	0.37	
Annual Threshold (ton/yr)	25	25	25	25	25	
Significance	No	No	No	No	No	

APPENDIX - H

MITIGATION MONITORING PLAN

LOWER MISSION CREEK FLOOD CONTROL PROJECT
SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

MITIGATION AND MONITORING PLAN
FOR
LOWER MISSION CREEK PROPOSED FLOOD CONTROL PROJECT
AND
FUTURE MAINTENANCE
SANTA BARBARA, CALIFORNIA

I. EXECUTIVE SUMMARY:

A. Location of Project:

The proposed project is located along Lower Mission Creek, Santa Barbara, Santa Barbara County, California. The project area is limited to the final 1.2 miles of the creek, between Canon Perdido Street and Cabrillo Boulevard (Figure 1). This project does not extend to the lagoon. Plans of all evaluated Alternatives are included in the Main Report. The locations of five to six habitat expansion zones are identified in the preliminary design attachment.

B. Introduction:

This Mitigation Monitoring Plan is prepared based on evaluation of environmental resources identified in the Environmental Impact Statement/Environmental Impact Report (EIS/EIR), Lower Mission Creek Flood Control Project. The mitigation monitoring plan is prepared for the implementation of project construction and future maintenance. This mitigation monitoring plan provides details of mitigation and monitoring of planted vegetation, two Federally listed species, tidewater goby and steelhead, and water quality to minimize project related impacts. Section 24 of the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) provides mitigation measures and environmental commitments for all environmental resources. Mitigation and monitoring for all applicable resources have been tabulated and enclosed in Appendix H of the EIS/EIR.

The environmental document is written in compliance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). The affected environment and impact analysis by each resource have been discussed in detail in Sections 6 through 19 of the EIS/EIR.

The CEQA requirement stipulates that: "The public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation" (A.B. [Assembly Bill] 3180, Section 21081.6; Amended: Chapter 1232, Statutes of 1993).

Alternative 12 is the National Economic Development (NED) and tentatively recommended plan. Alternative 1, the No Action/No Project Alternative, represents the future without project condition. See Section 3 of the EIS/EIR for details on alternatives. The EIS/EIR also includes impacts and mitigation measures related to future maintenance activities.

During plan formulation study, twelve alternatives were formulated to provide flood protection to the city of Santa Barbara. Alternative 12 provides maximum opportunity for providing incidental environmental benefit by planting of native riparian vegetation, compared to all other viable alternatives. The proposed recommended plan yield greater habitat values than currently exist. Due to project construction, there would be loss of existing vegetation, nearly all of which is non-native. However, the project design incorporates planting of native riparian vegetation along the upper banks of the creek and within the open spaces left within the project area (features called habitat expansion zones). Loss of the vegetation generated due to implementation of the project would be offset by planting vegetation within the project area. The Corps of Engineers and Santa Barbara County, local sponsor for the project, do realize that this is a self-mitigating project. But monitoring, maintenance and success criteria would be necessary to accomplish the project goal to improve quality and quantity of vegetation. Therefore, this plan identifies mitigation and monitoring for the planted vegetation as well as for the significant resources located within the project area.

The project area supports two Federally listed threatened and endangered species, steelhead (*Oncorhyncus mykiss*-Federally endangered) and tidewater goby (*Eucyclogobius newberryi*-Federally threatened). Section III of this report provides details of mitigation measures and monitoring requirements for the impacted biological resources.

II. **PROJECT DESCRIPTION (Refer to Section 3.5 of the EIS/EIR for details and enclosure 1 of the biological assessment)**:

Alternative 12 is the tentatively recommended and locally preferred plan. It would increase the channel capacity to 3,400 cfs and would provide approximately a 20-year level of flood protection. The natural bottom would be maintained and creek banks would consist of a combination vertical wall and ungrouted riprap. The bottom half of the bank would consist of a vertical wall while the upper half would be built with riprap at a 1.5:1 (H:V) slope. Aesthetic treatment would be incorporated into the project design to minimize the visual impacts of vertical walls. The riprap would be covered with topsoil. Concrete pipes of varying sizes (up to a maximum of three feet in diameter) would be strategically placed in between the riprap to allow planting of native trees and vegetation. Native willows or branches and other native herbaceous plants would be planted beneath the riprap and would sprout through gaps in it to form continuous understory riparian growth. Future maintenance is an integral part of the project.

Installation of Culvert:

The improved creek would generally follow the existing alignment and would incorporate a new culvert between Highway 101 and the Chapala Street Bridge that would carry high flows and bypass the oxbow. The oxbow would be left in place to function as the low flow channel. The culvert will extend between the upper end of the oxbow and the Chapala Street Bridge, roughly 830 feet long. The culvert and the existing watercourse will reunite immediately below that bridge. Except where it passes under Highway 101and is open to the air, the first 200 feet of its full length, about 75% of the box culvert would be buried and completely dark, including the downstream end of the structure (see Section 3.5 of the EIS/EIR and enclosure of the biological assessment (project description).

Habitat Expansion Zones:

Five small parcels of open land would be left along the banks after completion of project construction. These parcels range in size between 0.03 and 0.14 acres. These habitat zones would be designed to serve a dual purpose: to expand the corridor of riparian habitat to be planted along the stream banks. and to provide for passive park space for area residents. Native trees, primarily western sycamores, cottonwoods, and coast live oak, from local nursery stock would be planted in the habitat expansion zones. In time, their canopies would form dense clusters on the overbank and adjacent to the stream corridor. In some of these zones, pathways and benches might also be added to create passive park spaces.

Sideslope Planting:

Planting along the riprap and planting of native trees in habitat expansion zones are an integral part of the project design. The ecological values generated by these features would offset impacts from the implementation of the proposed alternative on existing biological resources. Therefore, no biological mitigation would be required. This proposed alternative would provide maximum biological values compared to all other alternatives evaluated in this document. In the long-term, the habitat value within the project reach would exceed the value of the existing habitat.

If any of the planting on the aforementioned features is deleted from the project design, then impacts related to the biological resources would need to be recalculated, which could result in the need for additional mitigation.

This alternative would also provide the opportunity to construct another expansion zone in the vicinity of the oxbow formation area. This habitat expansion zone would be located just upstream of Highway 101. It would be located in the vicinity of De la Vina Street on the west and Gutierrez Street on the north. The total area to be created would be about 0.6 acres (25,800 square feet, see Figure 2 for the location) This area was originally proposed as a constructed wetland. However, after further review, it was determined that this site is more suitable for use

as a habitat expansion zone, as described above. The construction of this feature would provide additional ecological benefits. However, its construction would be subject to cleanup of the existing known contamination on the site (see details in Section 15, HTRW of the EIS/EIR). If, prior to the completion of project construction, the designated site is remediated, then the habitat expansion zone would be constructed as planned.

Future Maintenance:

R Future maintenance of the creek is an integral part of the Recommended Alternative (Alternative 12). To ensure and maintain its design function and form, some maintenance of the design capacity of the channel would be needed on a regular basis. Any areas where sediment deposition and/or vegetation growth occur beyond 15% of the channel capacity would be required to be removed to maintain the capacity of the project reach. Future maintenance would also include maintenance of the structures such as cleaning of oxbow culverts, repair of vertical concrete walls and riprap (bottom riprap lining and baffle piers), and maintenance of planted vegetation (after initial establishment required as part of project construction). It is estimated that the average frequency of sediment removal would occur at intervals of about three years. However, when several low-flow years occur sequentially, sediment removal might be needed less frequently. Floodflows and debris accumulation and removal would continue to impact channel vegetation and aquatic resources. Over time, pools and riffles that provide aquatic habitat would reestablish in the channel.

Impact analysis for future maintenance is included for each resource in the EIS/EIR. Impacts related to maintenance activities are addressed in Chapters 6 through 19. Mitigation measures for future operation and maintenance for the life of the project are included in the EIS/EIR. Conditions identified in the EIS/EIR would be followed during each operation and maintenance activity. A detailed description of each maintenance activities is described in Section 3.5 of the EIS/EIR and enclosure 1 of the biological assessment. A brief description of the Future Maintenance performed by Santa Barbara County is provided in the following paragraphs.

Duration of Future Operation Maintenance:

Sediment removal would occur when the flow of water approaches the seasonal minimum, i.e. between mid-August and mid-October. Operation and maintenance would not occur between December 1st and March 30th to avoid impacts to steelhead, a Federally listed species. However, in an emergency circumstance created by a very heavy storm event, operation/maintenance of the channel invert could be required between December and March. If maintenance work occurs during these months in flowing water, a qualified biologist would be needed on site to monitor the sediment removal activities. Environmental commitments identified in Section would be followed during future sediment removal operations.

C. **Responsible Parties**: The U.S. Army Corps of Engineers (USACOE) would accomplish construction of the project and planting required vegetation along the sideslopes and habitat expansion zone. For the first two years the USACOE would be responsible for planting and monitoring of the planted vegetation. The USACOE or selected contractor also would be responsible for implementation of mitigation measures identified in Section 24 the EIS/EIR to avoid impacts to the environmental resources, particularly to minimize impacts to Federally listed species tidewater gobies and steelhead. Project construction would be monitored by the Corps of Engineers. Planting of vegetation would be monitored for five years. For the first two years planted vegetation would be maintained and monitored by the Corps of Engineers and the remaining three years would be performed the Santa Barbara County Flood Control District (SBCFCD). The environmental commitments identified in the EIS/EIR and this Mitigation Monitoring Plan would be followed by the SBCFCD for future maintenance activities.

III. BIOLOGICAL RESOURCES (Refer Section 10 of the EIS/EIR for details of an Existing Conditions and Impact Analysis):

The mitigation monitoring of the biological resources is divided by the resource category, vegetation and aquatic resources. A brief discussion of existing conditions and impacts on biological resources are in the paragraphs below.

A. Stream Bank Vegetation:

Existing Conditions:

R The proposed alternative would affect about ¾ of the existing banks within the project's overall area. The other quarter of banks along the lower portion of Mission Creek occur between Highway 101 and the downstream side of Yanonali Street. By design of Alt.12, it would not alter in any way the streambed or banks through this reach, which amounts to most of the oxbow and the entire length of the sandstone channel. As it happens, every foot of these banks, about 2060 linear feet counting both sides and all the bridges in between, are entirely bare of plant growth anyway. The length of banks between the upstream side of the freeway and the downstream side of the bridge at Yanonali Street has been disregarded altogether from environmental analyses since it would not be a part of the flood control project anyway.

R In those areas to be disturbed by stream bank construction, the presence of hardened bank surfaces currently exerts a strong effect on the abundance and vigor of plants along the creek. All totaled, 7310 linear feet of stream bank exists within the project area, measured on both sides of the creek and excluding from that total the widths of bridges and their flanking walls and disregarding the segment from the freeway through the sandstone channel. Of the existing banks which are not structural components of bridges, 2100 linear feet of stream bank (29%, counting both sides of the creek) have natural soft surfaces, while 5210 linear feet (71%,) have have been armored by some means or other. In essence, revetments cover about ¾ of these banks.

These revetments, of quite diverse materials and thoroughness, are not uniformly solid and impenetrable by plant roots. However, plants native to a stream side habitat in southern California are few and far between. Save for large and venerable western sycamores (*Platanus racemosa*) at six locations along the creek, it retains almost none of the stratification of canopy and understory species it must have had a century and more ago. Widely scattered arroyo willows (*Salix lasiolepis*) and white alders (*Alnus rhombifolia*) growing even more sparsely hint of what was once there below its riparian canopy, but nothing more than hint. Invasive non-native species compose virtually the entire plant assemblage along the creek. Now, giant reed (*Arundo donax*) forms the most conspicuous element of stream bank vegetation, and probably would rank highest in biomass of anything growing along the creek.

Project related Impacts:

Project implementation would cause removal of the existing bank vegetation. The project design incorporates planting along the riprap and planting of native trees in habitat expansion zones. The ecological values generated by these features would offset impacts from the implementation of the proposed alternative on existing biological resources.

Mitigation (Vegetation):

In total, about 4740 linear feet of riprap bank would be created. Bank stabilization upstream of Highway 101 would rely primarily on slopes armored by riprap. Cylindrical planters placed through the riprap would admit canopy and understory species. The final surface would be hydro-seeded with an appropriate mixture of annual and perennial native grasses. In nearly all locations, this design creates a plantable corridor slightly more than 11 feet wide, so the proposed project would install just under 1 acre of stream bank corridor.

The proposed project also includes planting of vegetation within the five habitat zone along the creek. An appropriate mixture of annual and perennial native grasses as well as upland shrubs appropriate to this climate and location would be applied by hydro-seeding.

Summary of Mitigation Measures/Environmental Commitments (Vegetation):

- Species to be plated within the project area shall be coordinated with the project biologist. The selected contractor shall plant the species as identified in this section.
- Any dead or dying trees and shrubs originally set out in planters along the banks corridors shall be replaced in kind, except during midsummer.
- Trees and shrubs that do not survive shall be replaced as soon as possible with local nursery stock.

- Install a temporary, above ground irrigation system to irrigate planted vegetation for a maximum of about 3 years.

- Use contamination free water from municipal sources.

- Ensure that planted vegetation is watered sufficiently. Watering requirements may vary according to weather conditions.

- All giant reed growth shall be treated thoroughly as fits the circumstances: careful foliar application of glyphospte herbicides, cutting the canes at the ground and painting the cut surfaces with glyphospte, or digging out the rhizomes where possible.

- Vegetation control would be accomplished by either brushing, clearing or spraying. Clearing could be done using mechanical equipment such as a dozer.

- During future maintenance, partial removal of vegetation would occur yearly. The removal would follow a mosaic pattern, wherein one half the creek bed would be cleared. The remaining half would then be cleared the following year.

Mitigation Goal for Streambed Vegetation:

- Obtain higher quality and quantity habitat by planting much higher quality species and many more of them in areas larger than exist currently.

- Restore the current effective thickness and height of existing plants within 3 to 5 years.

- Attain the structural complexity/diversity of vegetation equal to a coastal stream habitat within 30 years.

- Non-native vegetation shall be controlled with herbicide and/or removed.

- Replace coarse, invasive, non-native stream bank vegetation with tree species capable of forming an overhead gallery where canopies touch, and appropriate understory species adapted to the riparian ecological niche of coastal California streams.

- Preserve large western sycamores (*Platanus racemosa*) growing along the creek banks if possible.

- Plant dense clusters of stream side and upland species in five habitat expansion zones along the creek's banks.

- Plant native trees directly to the water's edge in two locations. Shade from trees would buffer water temperature in most of the creek during summer months.

- Indirectly re-establish an ecologically important component of assimilable nutrients and energy to organisms living in the creek itself through leaf litter from these plantings.

Monitoring Requirements for the Planted Vegetation:

- The growth rates of the trees and shrubs shall be documented for 5 years. As outlined in this Mitigation Monitoring Plan and the Environmental Commitments discussed in the EIS/EIR, if the plants do not meet pre-determined growth and survival rates, actions shall be taken to improve growing conditions such as fertilization, increased irrigation and replanting.

- For the first year after completion of construction, the stream bank corridors and habitat expansion zones shall be monitored every three months.

- During the second year of operation, stream bank corridors and habitat expansion zones shall be monitored every four months.

- During the third, fourth, and fifth year after construction, maintenance of planted vegetation would occur every six months.

- Following the 5th year, County Flood Control would assume all operational and maintenance activities. Monitoring of plants would be incorporated into the annual maintenance of the streambed (described above, Section 2).

- Monitor the layer of fill over the rip-rap to encourage understory growth. Periodical soil augmentation on the banks may be accomplished by using deposited stream bed sediment or imported soil from other areas. This will typically occur when earthen channel maintenance is required.

- Ensure installed irrigation system is working properly and plants are irrigated sufficiently to allow desired growth.

- Rip-rap shall be periodically inspected. If rip-rap is removed or damaged by any means to the extent that the integrity of the project is compromised, it shall be replaced.

- At each monitoring period, a monitoring report shall be prepared. After completion of monitoring of vegetation for five years, a final report shall be prepared.

- Monitor survival rate of the trees as identified in this monitoring plan (paragraph 3.6 Performance Criteria). All dead plants should be noted and plated.

Likelihood of Success:

Establishment, growth and expansion, and the eventual full maturation of vegetation planted on side slopes and into habitat expansion zones will be a steady and slow process, starting from seed for some species, vegetative propagation by cuttings of other species, and liner stock of some species. Within 3 to 5 years, the suite of plants along the riprap corridors would achieve sufficient height and density of foliage to shade substantial portions of the creek's streambed (Shading analysis, attached).

The gallery trees included should have grown sufficiently high and broad that their canopies overlap each other along the corridor of each bank after 30 years. The plantings could be considered mature at that point, but the structural complexity established by understory and canopy certainly would not become static then. Moreover, the tree species included in the design then would be well on their way to potentially long lifespans and eventual statuesque form, such as the sycamores at De la Guerra and at Mason Streets now exhibit.

Several entities would have an opinion about species to be planted, so the list below is not definitive. It includes native species which will have desirable growth forms on the riprap slopes and the habitat expansion zones. Plants, seeds and cuttings would be collected from the local area, preferably within the project area. If it is necessary to go outside the project area, collection areas should be near by and within the coastal portions of local creeks.

Species contributing to the canopy

western sycamore (*Platanus racemosa*)
Fremont's cottonwood (*Populus fremontii*)
black cottonwood (*Populus trichocarpa*)
coast live oak (*Quercus agrifolia*)
white alder (*Alnus rhombifolia*)
California bay (*Umbellularia californica*)

Understory species

Arroyo willow (*Salix lasiolepis*)
wax myrtle (*Myrica californica*)
Mexican elderberry (*Sambucus mexicana*)
squaw bush (*Rhus trilobata*)
blackberry (*Rubus ursinus*)

Native shrubs

toyon (*Heteromeles arbutifolia*)
laurel sumac (*Malsoma laurina*)
coyote brush (*Baccharis pilularis*)
holly-leafed cherry (*Prunus ilicfolia*)

Native grasses

giant wild rye *(Leymus condensatus)*
melic grass *(Melica californicus)*
deer grass *(Muhlenbergia rigens)*
California muhly *(M. californica)*
purple needle grass *(Nasella pulchra)*
nodding needle grass *(N. cernua)*
foothill needlegrass *(N. lepida)*

and other appropriate species not yet decided upon . .

Summary of Planted Vegetation Success:

- As planned, at least 120 trees would be planted into the 4740 linear feet of riprap banks. Structural design necessities of the walls dictate spacing between trees on riprap slopes.

- At a minimum, 115 trees can be planted into five habitat zones. Canopy forming trees can be planted closer together in the habitat expansion zones.

- Achieve 90% success of the planted vegetation at end of five years of planting, and ensure that vegetation survival rate is equivalent to the success criteria identified in Table 1 of this Mitigation Monitoring Plan.

- The upland shrub species in habitat expansion zones should have attained at least 50% the height and breadth typical of each in this climate, and overall at least 40% of these plants from nursery stock would still be alive and well.

- Minimum of 50% of these corridors would be occupied by willows. Willows would be about 7 to 10 feet in height 5 years after planting them. Growth of this vegetation should form the bulk of understory biomass along the riprap slopes.

Performance Criteria:

Reintroduction of the species native and adapted to this stream bank habitat will probably progress fairly slowly. All trees, and all upland vegetation planted in cylindrical opening through the riprap, shall be replaced should they die by the end of the fifth year after the project has been finished. The initial progress of their reintroduction can be measured most suitably by the coverage of ground surface, general vigor of plants, and height of vegetation. Appropriate benchmarks include:

TABLE -1
SUCCESS RATE FOR PLANTED VEGETATION

Evaluation time	% ground covered by native perennial	% of plants in generally good health	% of plants at least 5 feet high
after 1 year	5%	40%	< 5%
after 2 years	12%	55%	15%
after 3 years	30%	75%	40%
after 4 years	50%	85%	65%
after 5 years	75%	90%	80%

The understory and the canopy species cannot acquire the expected growth forms within an arbitrarily short time, of course. Both elements of the stream bank habitat will continue to

grow and proliferate for decades. Overall success should be judged 8 years after construction of the flood control project, which would be 3 to 5 years after cessation of temporary irrigation. At that time, 75% of the canopy species should be alive and well. They would have grown to at least a height of 8 feet and trunk diameter at least 2 inches.

The upland shrub species in habitat expansion zones should have attained at least 50% the height and breadth typical of each in this climate, and overall at least 40% of these plants from nursery stock would still be alive and well.

Willows should form the bulk of understory biomass along the riprap slopes. At a minimum, 50% of these corridors would be occupied by willows. Plants themselves would be 7 to 10 feet high.

Plants on the riprap slopes would begin to shade the creek bed three years after construction of the project (attached shading study). By the 8th year, their size should be sufficient to cast shade over the entire creek throughout the day except hour around mid-day.

Periodic maintenance of the stream slopes and habitat expansion zones would be necessary, especially to suppress the expansion of giant reed into all areas planted with native vegetation. Steady eradication of it by all appropriate and acceptable means will be employed so that this invasive pest never occupies more than 2% of the areas planted.

B. **Federally Protected Fish Species in Mission Creek**:

Background:

The biological resources associated with Lower Mission Creek include two fish species protected by the Endangered Species Act, aquatic habitat conditions which sustains their existence in this creek, and the plant growth along its existing banks.

Existing Conditions (Steelhead and Goby):

Lower Mission Creek exhibits purely riverain characteristics through the upper 80% (about 4280 linear feet) of this project area, from Canon Perdido Street to Yanonali Street. The final 1100 feet of the creek become gradually more estuarine, since the daily interchange of fresh and salt water is greater closer to Cabrillo Boulevard. Commercial and residential development which took place historically along this last section of creek now constrain it within a nearly artificial channel: no mudflats dissected by tidal creeks remain anywhere along the estuary. No tracheophyte plant species ecologically associated with functional coastal marine communities remain anywhere along Mission Creek.

Mission Creek historically afforded migratory passage for steelhead to spawning beds located at higher elevations in the watershed. Despite its degraded condition, repeated sightings

each year following the rains of El Niño in 1998 of both adult and probable smolts verify that its lower end continues to be a migratory corridor for steelhead. Adults must enter the creek through the estuary then transit the riverain portion of the creek, both segments where flood control construction would occur. Any young steelhead spawned in the upper waters would do the reverse when of an age to swim to the ocean.

Previous surveys have identified tidewater gobies in the estuary of Mission Creek and the tidal lagoon it forms between Cabrillo Boulevard and the open waters of the harbor. Gobies most likely forage in the estuary, since the silty sediments which gradually accumulate there given existing flow patterns during the dry months offer poor physical conditions for their excavated spawning nests.

Impacts caused by the project (Steelhead and Goby)

Construction between Cabrillo Boulevard and Yanonali Street. The most likely potential cause of adverse effects to steelhead and tidewater gobies will lie in the necessity to dry the streambed and toe of banks prior to construction. The plans for flood control construction would minimize adverse effects to both species through a combination of timing the work to give the best match to the life history patterns of steelhead migration and spawning behavior of tidewater gobies, on-site monitoring for and supervised relocation of both fish species, and means to de-water only half the creek at any one time. Nonetheless, netting and moving fish would affect them in a temporary and adverse manner.

Construction between the oxbow and Canon Perdido Street. Direct mechanical injury of fish or indirect but adverse effects such as impaired respiration caused by greatly increased turbidity could have impacts to steelhead while construction is underway in these upper waters of the project area. Measures to avoid or minimize unavoidable impacts include scheduling construction work outside the migration period, on-site monitoring for and supervised relocation of young salmonids encountered unexpectedly, temporary barricades at the upstream end of sections under construction to exclude smolt sized fish, or temporary use of a pilot channel through the current construction area screened at its upper end to block smolt-sized fish. Any fish netted and relocated would sustain adverse and temporary effects.

Routine channel maintenance. Initial numeric models of sediment transport indicate even less accumulation of fine deposits in the estuary than now occurs. Regular maintenance needs should not arise in the portion of the creek inhabited by tidewater gobies, and therefore this species should not incur adverse effects for channel maintenance.

During winter storms, the creek presently scours pools at bridge abutments, e.g. the upstream side of Bath Street and Highway 101. These persist through the dry season when sufficiently large and sheltered in the shade of the bridge itself. Although an unlikely event, young salmonids who get washed downstream before they are ready to swim to sea and are not yet strong enough to return to waters higher upstream would try to survive in such pools. As a

precaution during the annual maintenance cycle, any young trout holding out in such refuges would be subject to supervised relocation. Steelhead netted and moved for their own well being would sustain adverse and temporary effects nonetheless.

Mitigation Goals:

The probable need to relocate steelhead or gobies from stretches of the creek where construction is imminent becomes a compromise to reduce direct and adverse effects on both species. Supervised relocation would diminish the unwanted risk of dead fish, but would in itself constitute direct take within the realm of the Endangered Species Act (the Act). Authorization for take of this level must be granted by National Marine Fisheries Service for steelhead and by the U.S. Fish and Wildlife Service for tidewater gobies. As compensatory mitigation for any incidental and indirect impacts the project may cause to steelhead and gobies in Mission Creek, elements of the project's design would:

- Minimize adverse effects during construction and subsequent maintenance to steelhead and tidewater gobies;
- implement a design which causes no constriction to the creek bed, and hence no increase of water velocity compared to existing conditions;
- create flow conditions conducive to the passage of steelhead through the length of the project on Mission Creek;
- preclude the chance of steelhead entering the lower end of the proposed by-pass culvert at stream discharges less than the average annual flow, 640 cubic ft/sec;
- provide permanent refuges appropriate to both fish species;
- permanently expand by more than double the estuary's volume; and
- restore an important measure of natural heterogeneity in flow characteristics to the riverain portion of the streambed.

Details on impacts analysis are provided in the Section 10 of the EIS/EIR. Brief discussion on documenting of no permanent adverse effects is provided in the biological assessment for gobies. Details on mitigation measures/environmental commitments are provided in the following paragraphs.

Mitigation Measures/Environmental Commitments to Minimize Project Related Adverse Effects:

If stream flow conditions are suitable, adult steelhead would be most likely to try the ascent during the four month span between December and the end of March. Adolescent steelhead could be present in the creek from the middle of March through late May, on their way to the ocean. Their tenure in the lower creek depends on the speed of changes necessary for them to tolerate salt water after the first phase of life in fresh water. Those complex changes transform them physiologically from young trout into steelhead smolt.

Spawning by tidewater gobies peaks in March and April. They construct egg clutches in gravely substrates, such as that found in the tidal lagoon below Cabrillo Boulevard. Gobies would be expected sporadically in the estuary through summer and fall, but are unlikely to swim upstream of Yanonali Street in the typical flow regime, primarily because a low sill spans the full creek bed at that bridge where water is quite shallow after the rainy season, and secondarily because gobies prefer saltier waters compared to the flow issuing from the sandstone channel consists which entirely of fresh water.

Measures to lessen impacts to both fish species during streambed, toe-wall, and side slope construction would differ from those applicable during annual maintenance. All are inherently geared to the two species' respective behavior which leads to spawning in their respectively different habitats. Some measures appropriate to construction needs in the estuary (where construction would begin) are not appropriate farther upstream, so they are set out here as though in two separate regions. Work in the estuary will necessitate drying half of it at a time, from the center line to one bank, then switching sides for the opposite bank. A temporary construction exclosure is the preferred method for this requirement. While one half the estuary has thus been dried, normal tidal flush and flows regimes of the dry season can still pass through other half. At no time would the complete streambed be dammed. Work from the oxbow up will necessitate temporary diversion of lower flows. The least injurious method entails placement of a buried culvert into a suitable pilot channel and fitting its intake with appropriate fish barriers, and continuous monitoring. The mitigation measures/environmental commitments are identified by the project reach and future maintenance, because of the complexity and timing to avoid impacts to both Federally listed species.

Construction between Cabrillo Boulevard and Yanonali Street:

1. No construction work in water anywhere in the estuary from December 1st to June 1st.
2. Divide a suitable length of the estuary down the middle with an impermeable barrier, perhaps sheet piling. That length should be as long as practicable to minimize repetition of this divide and dry procedure for making temporary construction enclosures. A lateral coffer dam in mid-stream shall not be acceptable because of increased turbidity and fine sediments that would conveyed downstream to the coastal lagoon.
3. Dam half the estuary at the upper end of the center-line barrier with sheet piling.
4. Qualified biologists walk downstream in zigzag pattern to herd as many fish as possible from the incipient exclosure.
5. Dam the lower end of the exclosure with sheet piling immediately.
6. Fish biologists seine the entire confined half thoroughly to remove any gobies and other large organisms to the wet side of the construction exclosure.
7. Commence pumping water from the exclosure with intakes to pump fitted with ½ mesh screens.
8. Fish biologists monitor drying exclosure and seine it thoroughly at least twice a week.
9. When construction on one side has been completed, the downstream wall of the exclosure shall be removed first, followed by the upstream end.

10. Repetition of the steps above on the opposite bank.

Construction between Highway 101 and Canon Perdido Street:

11. No mechanized equipment permitted in flowing water between December 1st and the end of March;
12. Prior to starting work in the next region upstream, a qualified biologist would examine all scour pools at bridge abutments, undercut concrete ledges, etc.
13. Any steelhead, or young salmonid fish in particular, found unexpectedly in these small refuges would be relocated upstream to a receiving area previously identified and agreed upon by NMFS and CDFG and in a manner thoroughly consistent with appropriate transportation techniques. If authorized, the monitor shall weigh, measure, remove a sample of cheek scales, remove a sample of adipose fin, and apply a permanent identification tag of acceptable properties to each salmonid discovered and relocated.
14. The biological monitor shall prepare a written report giving all pertinent details of fish relocated.
15. Silt curtains shall be deployed below the immediate area of construction. Curtains would be deployed in pairs, with a gap at least 30 feet wide between the upstream and the downstream curtain to reduce suspended sediments in the water.
16. A temporary net of appropriate size as agreed upon by NMFS and CDFG shall be strung across the existing low flow channel to prevent salmonids from entering the section of creek next to be constructed.
17. Once certified free of protected fish, the existing current would be diverted to a temporary pilot channel scored in the center of the creekbed.
18. As many culvert pipes as determined necessary to carry anticipated low flows shall be placed into the pilot channel. A mesh filter no larger than ½ inch square shall cover the intake. Culverts shall be at least 24 inches in diameter. Culverts shall not be longer than 100 yards.
19. Once culverts have been placed, the biologist shall monitor each section at least twice a week to verify that screens are in place over intakes and water has not leaked into the local section under construction.
20. Prior to completion of work in a given section, the temporary net shall be resuspended upstream of the culvert intake and fully across the existing low flow channel.
21. Only then shall removal of the culvert and completion of the natural streambed downstream be allowed.
22. The pair of silt curtains shall be removed.
23. The next upstream segment of creek bed and banks shall be readied in like manner.

STRUCTURAL FEATURES TO MITIGATE PROJECT RELATED ADVERSE EFFECTS :

Design features of the project include a number of elements intended to offset incidental but adverse effects to steelhead and tidewater gobies. Broadly, these elements would improve habitat conditions for both species. They are summarized in the following table and more detailed descriptions follow that.

All impacts to either fish species would be of temporary nature. The project would not permanently reduce net reproductive rate ($R_0 \approx \int l_x m_x dx$), age-specific survivorship (l_x), age-specific fertility (m_x) or dispersal ability of either species. Table 6 of the biological assessment for steelhead summarizes implementation of each structural features to mitigate adverse effects to steelhead and tidewater goby and indirect benefits generated by each feature.

The following paragraph summarizes benefits and analysis of the structural features (refer biological assessments for details).

- **Increase of Natural bottom**. The creekbed would be widened therefore project design would yield approximately 4.4 acres of streambed, compared to 2.3 acres of an existing streambed. In total, approximately 4450 linear feet of streambed would be surfaced with native sediments.

- **Larger Estuary**. Expansion of the creek bed to a width of 60 feet will create greater surface area in the estuary. Compared to existing conditions, gobies would have approximately 2¼ times as much water in which to forage between Mason Street and Cabrillo Boulevard.

- **Fish refugia in the estuary**. The project would provide permanent and durable hiding places for fish. Both toe walls and full-height vertical walls would be formed with a coarse surface ornamentation, artificial overhangs, and double rows of coarse boulders between the overhangs where fish may take refuge. Walls throughout the estuary would have both these molded features.

- **Mid-stream boulder clusters**: Placement of clusters within the baffle field (accompanying diagram) is intended to promote the variety of water conditions trout seek out in natural streams, so clusters would be placed to outline a sinuous and meandering predominant channel, one that shifts back and forth across the streambed.

- **Fish baffles upstream of Mason Street.**

Fish baffles would occupy locations in lower velocity sections of the creek, on one side or the other as appropriate to its curvature. In certain lengths of the creek side baffles would be placed along one side only, then for another length be built against the opposite side. Many baffles would extend along 150 feet of the creek's side, a few up to 200 feet in length, while

others would be shorter by necessity. Design restrictions prevent their placement beneath bridges, for a certain distance on the upstream side of bridge abutments, and directly opposite other baffles or ledges.

The creek's channel allows fish baffles to be interspersed with ledges as indicated by the prevailing direction of currents and streambed to encourage formation of varied stream features are attached in preliminary design attachment. Side baffles would be installed over approximately 1400 linear feet of the stream's edge; 675 linear feet of fish baffles on the left and 725 linear feet on the right side.

CONSTRUCTION OF UNDERGROUND OXBOW CHANNEL.

The project incorporates a box culvert. The culvert will extend between the upper end of the oxbow and the Yanonali Street Bridge, roughly 830 feet long. The culvert and the existing watercourse will reunite immediately below that bridge. Except where it passes under Highway 101and is open to the air, the first 200 feet of its full length, about 75% of the box culvert would be buried and completely dark, including the downstream end of the structure.

In actuality, the existing watercourse and the culvert must function as paired alternative channels which accomplish two separate needs. First, the existing oxbow must behave as the sole channel for all discharges less than the yearly average event (640 ft^3/sec, a recurrence interval of 2.3 years), i.e. the culvert cannot begin to accept any water until flows exceed 640 ft^3/sec. Secondly, when discharges exceed that threshold, the water's momentum must carry it toward the culvert preferentially and away from the oxbow to counteract the existing route's tendency to take on flows in excess of the limiting conveyance capacity, i.e. flows larger than 1050 ft^3/sec must be captured by the culvert. At the design limit, the culvert will shunt as much as 2350 ft^3/sec past the existing channel while 1050 ft^3/sec pass through the oxbow. Details of oxbow related consequence are provided in the biological assessment for steelhead.

FUTURE MAINTENANCE RELATED MITIGATION MEASURES:

Detailed descriptions of the sediment deposition and future maintenance are provided in Section 3 of the EIS/EIR.

Mitigation Goals:

a) Restoration of natural streambed to the greatest practicable extent;
b) Promote heterogeneous current conditions;
c) Areal expansion of estuarine habitat;
d) Reduce siltation within the estuary;
e) Restrict growth of non-obstructive plants, but not suppress it;
f) Enhance conditions to promote growth of instream invertebrate fauna and decomposers.

Mitigation Measures:

- All routine maintenance shall be accomplished between August 1st and October 31st;
- A pair of silt curtain fences shall be set across the low flow not more than 100 yards downstream of the work area;
- the fences shall be approximately 10 yards apart;
- Any trout present shall be captured by techniques dictated by National Marine Fisheries Service and California Fish and Game and relocated promptly to a suitable refuge;
- A written report describing in detail any such relocations would be submitted to National Marine Fisheries Service;
- Mechanized equipment would enter the creek via the access way at the parking lot of the church at Canon Perdido Street, that at Cota Street, or that immediately adjacent to the oxbow;
- A front end loader or road grader working together with dump trucks (10 yd^3) would be used for the bulk of sediment and vegetation removal;
- A swath half the channel wide shall then be cleaned, first along one side as seems convenient for an arbitrary distance (say, 250 feet), then switching to the opposite bank for another arbitrary distance;
- The half of the streambed from which sediments are removed shall be completed by scoring a pilot channel as close as practical to the side baffles or ledges without hitting them and chamfer that dressed side gently from the center line to the pilot channel;
- Vegetation in the other half shall be mowed to suppress the growth of woody perennials but still allow herbaceous perennials and annuals to grow;
- If storm events of the next winter rains leave enough sediments to warrant their removal, then during the following summer the other half of the creek bed, that where only brushing of plants occurred the previous year, would be groomed to remove obstructing sediments and plants, and to shift the chamfer and the pilot channel to the opposite side;
- If storm events do not reduce conveyance more than 15% then the next maintenance cycle shall involve only mowing of vegetation.

ENVIRONMENTAL COMMITMENTS FOR MAINTENANCE OF THE STRUCTURAL FEATURE:

Maintenance of side baffles, ledges, and mid-stream boulder clusters —

- Sediments would be removed from among boulder clusters and large rocks of the side baffles only as needed to prevent them from being covered completely;
- If necessary, sediments shall be dug from the downstream side of boulders with a backhoe equipped with a 3 foot bucket, then dragged toward the center of the creek to be combined with streambed sediments being removed as described previously;
- Any individual boulders that might have been dislodged mechanically or displaced by currents would be pushed back into a suitable vacant spot in the baffle and reset.

- Any propagules of giant reed or salt cedar that have taken root shall be eliminated. A combination of foliar application of glyphosate or digging out rhyzomes with hand tools could be employed. Application of herbicides should be very limited, confined to only those small locations where the most persistent and aggressive weedy plants begin to re-invade the creek bottom;
- The remaining growth shall be cut back using a brush hog, or similar mowing attachment passed a couple feet over the tops of the rocks. The intent is to cut down woody species before they attain much height or stem expansion, but not to eradicate low-growing herbaceous plants that offer negligible friction to water currents.

Maintenance Expectations Between the Oxbow and Sandstone Channel:

- The weir's height would push all flows smaller than 640 ft^3/sec toward and through the sandstone channel. In effect, the pattern by which sediments currently settle in the sandstone channel would remain unchanged.

- Removal of silts and vegetation between the Highway 101 bridge and through the sandstone channel would continue to follow current practices.

- Sediments and vegetation would be removed when channel capacity has been reduced by more than 15%.

- All routine maintenance shall be accomplished between August 1st and October 31st.

- A qualified biologist would examine all pools at bridge abutments for young trout.

- Any trout present shall be captured by techniques dictated by National Marine Fisheries Service and the California Department of Fish and Game and relocated promptly to a suitable refuge.

- A double line of straw bales or silt curtain shall be set across the lower end of the channel.

- A front-end loader would scoop all materials directly from the channel to trucks waiting above adjacent to the railroad tracks.

- The full width, 33 feet, would be cleaned of obstructive materials.

Monitoring Requirements for the Future Maintenance:

- Monitor sedimentation and vegetation growth within the creek. Sediments and vegetation would be removed when channel capacity has been reduced by more than 15%.

- A qualified biologist would examine all pools at bridge abutments for young trout.
- Mechanized equipment necessary to perform maintenance activities can be used in the creek between August 1st and October 31st.
- A biological monitor shall examine all suitable pools for salmonid fish.
- Pools formed beneath fish ledges which need not be touched during channel maintenance shall be excluded from this monitoring requirement.
- Dip nets, or larger seine shall be used for this purpose. Electroshocking shall not be acceptable.
- Any salmonids discovered in the lower creek during annual maintenance shall be dealt with as described in the biological assessment.

MAINTENANCE EXPECTATIONS WITHIN THE ESTUARY:

Projections of sediment transport indicate greater erosion from storm events than currently takes place. During storms, water entering the culvert would carry less sediment than it could by virtue of the blocking effect of the weir. When flows through the culvert and sandstone channel converge, this volume of cleaner water would resuspend fine sediments. Hence, the net effect of the project within the estuary should shift the composition of the streambed to gravels and small rocks, rather than fine silty sediments. Removal of silty materials or other fine sediments from anywhere in the estuary should not become a maintenance requirement of the project.

IV. WATER QUALITY:

Section 7 of the EIS/EIR provides detailed on existing and impact analysis of water resources. Following paragraphs summarize mitigation and monitoring requirement for the project construction and future maintenance.

The USACOE does not issue itself a permit for civil works projects. Therefore, a Section 404 (b)(1) analysis is prepared and included in the EIS/EIR, Appendix F. Section 404(b)(1) addresses project related impacts to the waters of the United States. A future maintenance plan is included in the EIS/EIR, and impacts related to future maintenance are identified. Mitigation measures for project construction and future maintenance for the life of the project are included in the EIS/EIR for water. Future maintenance will be performed by the Local Sponsor. Therefore, Santa Barbara County has submitted an application for a Section 404, Corps Regulatory, permit. The Environmental Resources Branch has coordinated with the Regulatory Branch, Ventura Field Office, on the requirement for the Section 404, Water Quality General

Permit. The USACOE is planning to coordinate with the Regulatory Branch throughout construction of the proposed

project. A public notice will be issued, and, if necessary, an opportunity for a public hearing for the proposed discharge, will be issued. A Section 404, Water Quality Permit could be vaived, becuse the EIS/EIR would be sumbitted to Congress for re-authorization.

The USACOE has received a Section 401, State Water Quality Certification, waiver for the project construction and future maintenance from the California Water Quality Control Board. As identified in Section 404(r) regulation: "The requirement to obtain Section 401 Water Quality Certification for the project construction is waived if information on the effects of the discharge of dredged or fill material into waters of the United States, including the Section 404 analysis, is included in an EIS/EIR submitted to Congress before Congress authorizes the project or appropriates funds for construction."

MITIGATION OF POTENTIAL WATER QUALITY IMPACTS:

- The creek channel upstream of construction activity shall be dammed temporarily to prevent water from entering the reach under construction. A diversion pipe shall be installed in the dam to convey any creek water around the construction area for discharge downstream of the construction activity

- Short-term impacts to surface water quality from fuels, solvents, and lubricants associated with construction equipment.

- Equipment shall be in proper working condition and inspected for leaks and drips on a daily basis prior to commencement of work. Corps shall develop and implement a spill prevention and remediation plan and workers shall be instructed as to its requirements. Construction supervisors and workers shall be instructed to be alert for indications of equipment-related contamination such as stains and odors. Construction supervisors and workers shall be instructed to respond immediately with appropriate actions as detailed in the spill prevention and remediation plan if indications of equipment-related contamination are noted. Construction equipment shall only be operated within dewatered areas of the creek. No maintenance of construction equipment shall be carried out in the creek bed.
  No construction or sediment removal would occur anywhere within the project area between December 1st and March 30th. Details of these mitigation measures include:

  1) Pipe culverts will be placed in the low flow stream where the stream must be crossed on a regular basis. No work will be allowed in the flowing water except as absolutely necessary (as determined by the Flood Control District).

2) Construction of temporary low-flow channels within the creek during debris removal operations to minimize turbidity and provide habitat for aquatic species.

The low-flow channels would be constructed around and away from debris removal operations. Project biologists would develop criteria for the low-flow channels.

3) Conditions identified in the applicable permits and 1601/1603 Streambed Alteration Agreement) shall be followed during construction and future maintenance as applicable.

- Stockpiled soil needs to be placed sufficiently far back from the creek that erosion control measures can be employed. During construction, USACOE intends to employ Best Management Practices (BMPs) to control erosion and associated sedimentation of the creek. Measures such as use of sediment control mesh and covering of stockpiles are among possible BMP's that would be employed to protect the creek. A Storm Water Pollution Prevention Plan (SWPP) will be prepared by the USACOE or the Construction Contractor, which would include methods or conditions for erosion control occurring due to the project construction. This document would be available on the construction site.

MITIGATION MEASURES FOR FUTURE MAINTENANCE:

- All routine maintenance shall be accomplished between August and mid-October.
- A pair of silt curtain fences shall be set across the low flow not more than 100 yards downstream of the work area; the fences shall be approximately 10 yards apart.
- If storm events do not reduce conveyance more than 15% then the next maintenance cycle shall involve only mowing of vegetation.
- During those maintenance cycles when the County determines silt removal has become necessary, all plants and deposits would be removed. As the final step during maintenance, the pilot channel would be rebuilt following the path where a natural channel had gradually come into being, or where the pilot channel had been if hydraulic processes have not already shifted and reshaped it.
- A swath half the channel wide shall then be mowed or brushed to suppress the growth of potentially large perennials, first along one side as seems convenient for an arbitrary distance (say, 250 feet), then switching to the opposite bank for another arbitrary distance. The pilot channel would not be disturbed.

- If sediment removal is not needed the year after, then the other half of the channel would be mowed and brushed. The pilot channel would not be disturbed.

- If storm events of the next winter rains leave enough sediments to warrant their removal, then during the following summer the full width of that section of the creek would be groomed to remove obstructing sediments and plants. The pilot channel would be rebuilt where a natural channel had gradually come into being, or where the pilot channel had been if hydraulic processes have not already shifted and reshaped it.

- No discharge of oil or spill of contaminated material should be allowed within the creekbed (conditions identified above would be followed during the future maintenance.

- BMPs will be employed to avoid excessive impacts to water quality.

APPENDIX - H (for Alternative 12)
SUMMARY TABLE
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Water Quality	Minor short-term increase in turbidity levels during construction and future maintenance.	- Stream water diversion shall use pipes/ pilot channel and other standard methods to create low flow diversion channel during construction and future sediment removal. - No construction or sediment removal shall occur in flowing water or during heavy rains. Construction and future maintenance shall not occur during months of December 1 through April 1, when flow is high in the creek . - Conditions identified in the Water Quality Certifications shall be followed during construction as well as for future maintenance. - No discharge/leaks or spills of fuels, solvents or lubricants in the creek bed. A Storm Water Pollution Prevention Plan (SWPP) shall be required prior to project construction and implemented.	Construction: from initiation of construction to completion of construction. Future Maintenance: Between July and November	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County or Contractor	Construction Approx. 2-years or until construction is completed Future Maint. About 15 to 30 days; every year for the life of the project.	In the beginning every week; once construction is established once a month until construction is completed Future maintenance : Once a week.during each maintenance cycle.	As conditions identified in permits , EIS/EIR. and Mitigation Monitoring Plan

Note: Only, resources are included in this table which require mitigation measures or environmental commitments and monitoring. Details are provided in the Mitigation Monitoring Plan text and EIS/EIR.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Air Quality	During construction and future sediment removal, short term increase in fugitive dust; no long term impacts on air quality.	Construction: Water the excavation site, storage piles and unpaved roads twice each day of construction; once in the morning and at the end of the construction day; cover material transported in haul trucks; these conditions are applicable for construction and future maintenance. Limit vehicle speeds to 15 mph maximum within the construction site and maintenance areas (construction and future maintenance). Cease grading and earth movement when wind speeds exceed 20 mph, or as confirmed by SBCAPCD during construction and future maintenance activities. Future Maintenance: Same as Construction	Construction: from initiation of construction to completion of construction. Future Maintenance: Between July and November	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County or Contractor	Construction Approx. 2-years or until construction is completed Future Maint. About 15 to 30 days; every year	In the beginning every week; once construction is established once a month until construction is completed Future maintenance: Once a week during each maintenance event.	As directed by the Santa Barbara County Air Pollution Control District.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Noise	Short term increase in noise levels due to use of the construction equipment and truck traffic. Noise levels will exceed 65 dBA at sensitive receptors. Residents located in the vicinity of the project area will experience increased noise levels during construction as well as during future maintenance.	Construction and future maintenance: Follow noise ordinance of the City of Santa Barbara. The project area is located within densely populated area; therefore, no loading or unloading of equipment or material shall be performed between 7:00 p.m. and 7:00 a.m., nor shall there be any heavy equipment operation prior to 8:00 a.m. and after 7:00 p.m. Monday through Saturday. No Sunday or holiday operation. Truck traffic shall be on designated truck routes established in coordination with the City of Santa Barbara.	Construction: from initiation of construction to completion of construction. Future Maintenance: Between July and November	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County or Contractor	Approx. 2-years or until construction is completed Future Maint. About 15 to 30 days; every year	In the beginning every week; for a month; if complains received than continue monitoring every week otherwise every two months or after a complain received from the citizens. Future maintenance: Once at every event.	Follow City's local noise ordinance guideline.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources							
Steelhead	Temporary impacts would be incurred by: the possible need to capture and relocate steelhead smolt from reaches of the stream where construction is about to begin, temporary alteration of instream habitat conditions, temporary loss of macroinvertebrate populations, increase turbidity downstream of construction areas.	No construction within flowing water between December 1 and March 31 to avoid impacts to adult steelhead. Qualified biologist would survey the area for steelhead prior to construction. Construction in the estuary restricted to period between June 1st and December 1st. Placement of ledges, rocky side baffles, mid-stream boulder clusters, construction and alignment of pilot channel, and natural bottom throughout to promote higher quality of instream habitat, especially during steelhead migration. **Note: All environmental commitments/mitigation identified in Mitigation Monitoring plan, EIS/EIR and Biological Opinion must be followed.**	Construction: from initiation of construction to completion of construction. Future Maintenance: Between August 15th and October 31st.	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County or Contractor	Approx. 2-years or until construction is completed Future Maint. About 15 to 30 days; every year	In the beginning every week; for a month; depending upon water level in the creek, during construction of low-flow channel or installation of pipe, during heavy rainfall. Future maintenance: Once per year under normal circumstances.	Construction determined by the National Marine Fisheries Service, follow conditions identified in the biological opinion. Future Maintenance: Same as construction

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources - Continued							
Tidewater Goby	Incidental and temporary impacts would be incurred by: the possible need to capture and relocate gobies from the half of the stream channel to be de-watered prior to construction between Cabrillo Boulevard and Yanonali Street, temporary alteration of instream habitat conditions, temporary contraction of the estuary to about half its existing size, temporary loss of macroinvertebrate populations, increase turbidity downstream of construction areas.	Tidewater gobies would be excluded from half the estuary at a time, and fish moved to the wet half while construction zone is dewatered slowly. Structural designs of walls to create permanent habitat features suitable for gobies, small fish, and macroinvertebrates; expansion of estuary by 220%. **All environmental commitments identified in the Mitigation Monitoring Plan, EIS/EIR and Biological Opinion has to be followed for the project construction and future maintenance.**	Construction: from initiation of construction to completion of construction.	Construction: USACOE or Construction Contractor.	Approx. 2-years or until construction is completed	Construction in estuary: after assembling the temporary exclosure and while dewatering it full time monitoring, twice a week thereafter.	Constructio n: 90% As identified in the biological opinion and coordinatio n act report.
			Expectations of maintenance requirements in the estuary, i.e. between Yanonali Street and Cabrillo Boulevard: Historically, no need to remove sediments or extract large debris after flood events has ever arisen within this portion of the creek. The proposed design would not change hydraulic influences within the estuary. Therefore, no future channel maintenance of the estuary should be necessary under normal circumstances.				

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources - Continued							
Aquatic habitat	net incidental environmental benefits equivalent to 0.34 habitat units in comparison to the future without project.	Mosaic procedure for mowing or brushing streambed vegetation; strategic placement of boulder clusters as energy dissipaters; soft bottom throughout flood control project; projecting ledges to be placed in conjunction with permanent pilot channel; when sediment removal becomes necessary, pilot channel to be reconstructed to follow evolved low-flow alignment; fish baffles along toe walls; expansion of estuary by 220%. **All conditions identified in the Mitigation Monitoring Plan, EIS/EIR and Biological Opinion must be followed for the project construction and future maintenance.**	Construction: from initiation of construction to completion of construction. Future Maintenance: Between August 15th and October 31st.	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County or Contractor	Approx. 2-years or until construction is completed Future Maint. About 15 to 30 days; every year	Annually after completion of the project	100% or as identified in the biological opinion or directed by the NMFS and USFWS.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Biological Resources Continued							
Isolated Native Trees	Loss of 15 to 18 individual trees.	Planting species native to riparian habitats, including western sycamore from local genetic stock, into riprap slopes and habitat expansion zones would yield at least 300 replacements.					
Stream Bank Vegetation	Projected average environmental quality equivalent to about 1.1 habitat units. Incidental environmental benefits equivalent to 0.34 habitat units in comparison to the future without project.						
Planted* Vegetation along riprap and habitat expansion zone		A temporary, above ground irrigation systems shall be installed and maintained. Invasive weeds (principally giant reed, castor bean, salt cedar, and sweet fennel) removed mechanically or by spot application of herbicide during maintenance. Any native trees which die within the first five years shall be removed and replaced by the same species from 1-gallon stock.	Construction: After completion of the project construction. Future Maintenance: After two years of completion of the project.	USACOE or Construction Contractor for five years of planting; after five years Santa Barbara County will monitor for the life of the project.	for five years to ensure that planted trees/vegetation established. Twice a year for the first two years, and annually for the next three years. Ensure that criteria identified are met.	Monitoring of the planted vegetation performed twice a year for five years - USACOE or Construction Contractor until success criteria met. Santa Barbara County for the life of the project.	After a year of planting 40% success, after two years 55% success, and after five years 90% success. Dead or dying plants to be replaced during regular maintenance of areas planted.

***Note: Planting along riprap slopes and in habitat expansion zone is part of the project design. It is not a mitigation measure. Planted vegetation would be monitored to document success of planted vegetation.**

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Land Use	(1) No impacts to agricultural lands, Long-term Permanent Impacts: Buildings or property located within the project right-of-way will be removed or demolished for project construction. Therefore, land use would change from residential to natural creek bed or open space. However, most of the buildings located within the project reach are very old and all property located within the flood plains is subject to severe flood damage during heavy rains or flooding. Land use will change from residential to natural creek bed or open space within the construction right-of-way. (2) This alternative would require demolition of 10 complete and 3 partial structures. Relocation of existing tenants may be difficult due to the cost of housing. No impact to oxbow area. Culverts would be installed away from the creek. During construction, temporary impacts near fig tree.	The local sponsor will purchase the property and provide compensation to the property owner and tenants and/or property will be relocated	Prior to initiation of project	Santa Barbara County	About six months or negotiation is completed with the property owner.	One time - prior to the project construction.	As identified in state and local regulations for the property acquisition.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Socio-economics	(1) Long Term Impacts: Some of the property located along the creek bank would be removed. There would be economic loss to the property owner. However, property located within the flood plain would be protected from flooding hazards in future. Demolition of structures/building refer to Land Use Section. Relocation of existing tenants may be difficult due to the cost of housing. (2) Alternative 12 would require removal of 10 full structures and 3 partial. See details on type of the structures in Land Use Section.	The local sponsor would purchase the property or relocate the housing or commercial units to a safer zone. The property owner would receive compensation equal or more to their property value; therefore, project related impact is not significant. All property removal would be fully mitigated.	Prior to initiation of the project construction	Santa Barbara County.	About six months.	One time-prior to the project construction.	As identified in state and local regulations for the property acquisition.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Aesthetics	(1) Short-term: During construction, equipment and stockpile material would degrade aesthetic value of the project area. However, this impact is short term and would not be significant. (2) Long Term: Aesthetics/visuals of the creek banks would be improved with stabilization of banks. .Implementation of this alternative will provide maximum aesthetic value. Creek will be more natural looking. Provides maximum vegetation cover. Bottom of the creek can not be seen from top because riprap will be planted with native and riparian vegetation. Aesthetic treatment would be provided to the vertical walls. (3) For safety reasons, some type of fencing shall be installed along the banks. If chain-link type of fencing is used, aesthetic treatment would be needed, including planting of vines to reduce impacts.	**Alt. No. 12**: Upper banks will be planted with the natural vegetation. Create pocket parks. To enhance environmental value, construction of wetland near oxbow area would be performed. **Vertical Walls**: Plant vines along the vertical walls to minimize impacts; cover concrete with natural color and texture. If fencing is installed in the project design for safety purposes, plant vines along fencing to minimize impacts. Upgraded fence materials shall be used in areas visible or accessible to the public.	After stabilization of the side-slopes.	USACOE or Construction Contractor. Future Maintenance: Santa Barbara County (repair of the damaged banks)	About two years Future Maintenance: For the life of the project.	Inspection every year, and if damage is reported repair would occur on needed basis.	Not applicable.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Recreation	Short-term: During construction, stock piled material, equipment etc. will restrict recreational use of the creek. However, all sections would not be constructed at the same time; therefore, this impact is temporary and not significant. Long-term impacts: This alternative provides maximum recreational opportunity compare to other alternatives. These opportunities include: bird watching, walking along the creek bank, enjoying natural vegetation planted on upper slope of the creek. However, access to the creek bottom will be restricted and the creek's use as a connective corridor will be lost.	Alt. 12: Planting of native and riparian type of vegetation along the upper slope of the creek banks and within open areas. Create habitat expansion zones (pocket parks) and construction of wetland at oxbow.	After completion of the project.	Initial responsibility is of USACOE or Construction Contractor. Future Maintenance: maintain sideslope and habitat expansion zone by Santa Barbara County.	Approximately a year after completion of the project, Future Maintenance: For the life of the project.	One time after completion of the project. Future Maintenance: as needed basis for the life of the project.	Not applicable.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
*HTRW	Two HTRW sites are located within the project reach, at 324 De la Vina and 220 W. Gutierrez Streets. The De la Vina property was used by former dry-cleaning establishment. Testing of sediments would be required at West Gutierrez Street. Sediment contamination by construction equipment-related leaks or spills of fuels, solvents, or lubricants; possibility of encountering PCE contaminated soil and/or shallow groundwater in the vicinity of the West Gutierrez Street Bridge. This event could potentially cause releases of this substance to the environment; and, possibility of encountering deep sediment contaminated by HTRW.	(1) Equipment shall be in proper condition; no gasoline or oil change shall occur in the creek bed. Prior to construction, samples of creek sediments will be analyzed to determine contamination. Plan will be developed in coordination with the regulatory agencies (RWQCB, County Department of Environmental Health Services). (2) If sufficient information is available, a work plan shall be developed to determine characterization of the plume and impact to the shallow groundwater and sediment testing.	(1) Construction: from initiation of construction to completion of construction. (2) When construction occurs in vicinity of 324 De la Vina and 220 W. Gutierrez Street. Future Maintenance: at every maintenance activity	Construction: USACOE or Construction Contractor Future Main.: Santa Barbara County	Construction: Approx. two years. Future Maintenance: About 15 to 30 days for the life of the project	Construction: Initially every week, after construction is established once a month until construction is completed. Future maintenance: Once when maintenance is initiated.	As directed by the WQCB.

*** Hazardous Toxic and Radioactive Waste (HTRW)**

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Traffic	Short-term/Long-term: During project construction and future sediment removal, some residents may not have direct access to their residences. Street closure would be required in some locations. This impact is a short-term, temporary increase in truck traffic along selected haul routes. Particular concerns would arise during the replacement of the De la Vina/ Haley Street bridge which would impact a major commuter route on Haley Street.	Project construction would be performed by sections. No access to the residents or commercial establishment would be eliminated. Appropriate detours and traffic control officers would be provided to direct traffic. Alternative routes shall be coordinated with the City of Santa Barbara.	Construction: Throughout the project construction. Future maintenance: Between July and November every year	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County	Construct. Appro. two years. Future Maintenance Approx. 15 to 30 days for the life of the project.	Construction: Initiation of construction every week; once a month until project construction is completed. Future Maintenance: Once during maintenance activities.	As determined by the City of Santa Barbara

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Safety	Short-term Impacts: During construction, truck traffic will increase, potentially causing accidents. Long-term Impacts: After completion of the project, it could be possible that people could enter within the creek bed and injured. In addition people may get into by-pass tunnel and criminals may live and hide in culvert.	Short-term Impacts: During construction, traffic control officers would be provided to divert traffic to minimize accidents. Long-term Impacts: Fencing or other type of the protection shall be provided for public safety. Access points shall be provided to facilitate safe rescue. Install bars at end of tunnel to restrict passage to people (applicable to oxbow bypass Alts)	Construction From initiation of the project construction. Future Maintenance: Between Months of July and November	Construction: USACOE or Construction Contractor. Future Maintenance: Santa Barbara County	Construction Approx. Two years. Future Maintenance: Approx. 15 to 30 days at every year for the life of the project.	Construction Initially once a week, after construction is established once a month. Future Maintenance: Once during each event.	Not applicable.

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Cultural Resources	No National Register listed or eligible properties will be impacted under NEPA. Additional structures impacted under CEQA: A. 15 W. Mason St. - Proposed for removal. B. Potter Hotel Footbridge - Proposed for removal. C. 134 Chapala St. - Proposed for partial removal. D. 434 De la Vina St. - Proposed for removal. E. 306 W. Ortega St. - Proposed for removal. F. 536 Bath St. - proposed relocation. G. 116 Chapala Street. Proposed for removal	No mitigation is required under NEPA. Mitigation Under CEQA: 1. Extend box culvert downstream of Chapala Street Bridge. 2. Same as #1. Depending on design, may not mitigate to less than significant. 3. Realign proposed channel or relocate house on-site. 4. Relocate on-site. If not feasible, relocate off-site & complete biography of Karl Obert. Relocation off-site results in significant unavoidable impacts. 5. & 6. Save buildings on-site. Complete survey to determine boundaries and contributing elements. A. HABS recordation. Significant unavoidable impact. B. See #1. HAER recordation & relocation would result in significant unavoidable impact. C. HABS recordation, photographic study & short history. D. Same as C. E. Begin vertical wall further upstream or otherwise redesign to avoid house. Also acceptable, HABS recordation & relocation on-site.	Construction: Prior to initiation of the project. Future Maintenance: Not applicable	Undert NEPA the Corps has no responsibility. CEQA: City of Santa Barbara and County	Not determined yet.	Once prior to the project construction Future Maintenance Not applicable	N/A under NEPA CEQA: As identified by State and Local agencies

APPENDIX - H (for Alternative 12-Continued)
SUMMARY
MITIGATION MONITORING TABLE
LOWER MISSION CREEK FLOOD CONTROL PROJECT

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Success Expected
Utilities	Water, sewer and telephone lines are located within the project reach. Relocation of these utility lines would be required. Residents may experience temporary loss of services for short periods.	Relocation of utility lines would be performed in such a manner as to minimize disruption in service and accidental spills. If there is disruption, property owners and tenants will be notified	Construction Prior to the initiation of construction. Future Maintenance: Not applicable	Santa Barbara County or utility companies	Not determined yet	Once prior to construction	As identified in specification of the City of Santa Barbara and guideline for relocation of utilities.

APPENDIX - I

PUBLIC INVOLVEMENT (NOI/NOP/Initial study)

LOWER MISSION CREEK FLOOD CONTROL PROJECT
SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

October 1, 1998

Office of the Chief
Environmental Resources Branch

Director,
U.S. Army Records Management Program Division
Records Management Program Services
ATTN: TAPC-PDR-P, Mr. Greg Showalter
6000 6th Street, Stop C55
Ft. Belvoir, Virginia 22060-5576

Dear Sir:

The enclosed Notice of Intent (NOI) is submitted to your office for publication in the Federal Register in compliance with the Council on Environmental Quality final regulations implementing the procedural provisions of the National Environmental Policy Act of 1969, 42 U.S.C. 4321, as amended.

The Los Angeles District is submitting three signed copies of the NOI for the Lower Mission Creek Flood Control Project, Santa Barbara, California (Enclosure).

Thank you for your assistance in providing direction to my staff. If you have any questions, please contact Ms. Joy Jaiswal, Technical Manager, at (213) 452- 3871.

Sincerely,

John P. Carroll
Colonel, Corps of Engineers
District Engineer

Enclosure

[Federal Register: October 13, 1998 (Volume 63, Number 197)]
[Notices]
[Page 54681-54682]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr13oc98-58]

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Intent To Prepare a Draft Environmental Impact Statement/ Environmental Impact Report (DEIS/EIR) for the Lower Mission Creek, Santa Barbara, CA

AGENCY: U.S. Army Corps of Engineers, DoD.

ACTION: Notice of intent.

SUMMARY: The Mission Creek drainage area is located in and adjoining the city of Santa Barbara, California, about 100 miles northwest of the City of Los Angeles. The drainage area, comprising about 11.5-square miles, is a narrow coastal area and extends from the Santa Ynez Mountains on the north to the Pacific Ocean on the south. Mission Creek rises at about 4,000 feet elevation and flows about eight miles through the City of Santa Barbara to empty into the Pacific Ocean. The primary study area for the proposed project extends from Canon Perdido, downstream to the Pacific Ocean. The length of the project construction area is about 1.2 miles.

ADDRESSES: Commander, U.S. Army Corps of Engineers, Los Angeles District, Environmental Design Section, CECSPL-PD-RL, P.O. Box 532711, Los Angeles, CA 90053-2325.

FOR FURTHER INFORMATION CONTACT:
Ms. Joy Jaiswal, Technical Manager, phone (213) 452-3871, or Mr. Edward Demesa, Study Manager, phone (213) 452-3796. The City of Santa Barbara Point of Contact is Ms. Janice Hubbell, AICP, Project Planner, phone (805) 564-5470.

SUPPLEMENTARY INFORMATION:

1. Authorization

The Lower Mission Creek, Flood Control Project is authorized under Section 209 of the Flood Control Act of 1962 (Public Law 87-874, 87th Congress, 2nd session), approved October 23, 1962. The U.S. Army Corps of Engineers (USACOE), in cooperation with the County Flood Control District and the City of Santa Barbara, will be conducting a feasibility study for solutions to the flooding problem along Lower Mission Creek. The study will identify, describe, and evaluate alternative plans and fully develop the recommended plan to be submitted to Congress for project authorization.

2. Background

The USACOE has been involved in this project since 1964. Lower Mission Creek, especially downstream from Carrillo Street, poses a

serious flood threat to the City. In this area, a mix of residential, commercial, and public properties are subject to major damages during floods. The USACOE and the City of Santa Barbara are planning to prepare a Draft EIS/EIR to address and evaluate impacts to the environmental resources due to the improvement/construction along Lower Mission Creek. In addition, alternative solutions and recommendations to the flood and associated problems will be included with consideration to economic, environmental and social needs of the area. In the past, public workshops have been conducted to identify the public's concerns regarding the proposed project construction. Public concerns were about aesthetics of the creek, impacts to the biological resources and recreation. The tidewater goby (Eucyclogobius newberryi), Federally listed as threatened, has been identified in the lower-most portion of Mission Creek. Steelhead (Oncorhyncus mykiss, Federally endangered) of undetermined genetic origin also use the downstream reach of Lower Mission Creek as a channel for migration. although sporadic in their ascent of Mission Creek from the ocean, their irregular presence in this watershed has recently been verified.

3. Proposed Action

Construction of a flood control channel at Lower Mission Creek, Santa Barbara, California.

4. Alternatives

a. No Action: No improvement of the Creek.

b. Proposed Alternative Plans: The proposed plan would provide up to 3400 cfs (20-year flood protection) and consists of creek improvements from Canon Perdido Street to the Pacific Ocean. The improvements would include stabilized banks at a 2:1 (V:H) slope above U.S. Highway 101, while below U.S. Highway 101, vertical walls would be the dominant bank treatment with a sloped bank applied whenever practicable. A variety of sloped bank stabilization methods will be considered, which includes stabilization of sideslopes using gabions, engineered earth, and/or stepped concrete walls. In order to increase the conveyance capacity of the creek, the alternatives would incorporate a new covered channel cutting off the ``oxbow'' area from just above U.S. Highway 101 and rejoining the creek near the Chapala Street bridge. The improved channel would generally follow the existing channel alignment except at the ``oxbow'' bypass. The ``oxbow'' would be left in place functioning as a low flow channel. The majority of the 12 bridges within the project reach except for Bath Street bridge and State Street bridge would require some modification or reconstruction.

5. Scoping Process

a. Potential impacts associated with the proposed action will be evaluated. Resource categories that will be analyzed are: land use, physical environment, geology, biology, air quality, water quality, groundwater, recreational usage, aesthetics (visual quality), noise, cultural resources, transportation/circulation, hazardous waste, socioeconomic (including) housing and safety.

b. Participation of affected Federal, State, and local resource agencies, Native American groups and concerned interest groups/ individuals is encouraged in the scoping process. A Public Scoping Meeting will be held October 29, 1998. Time and location of the Public Scoping Meeting also will be announced by means of a letter, public announcements, and news releases. Public participation will be especially important in the environmental analysis by providing assistance in defining the scope of analysis in the EIS/EIR; identifying significant environmental issues and impact analysis in the EIS/EIR; and providing useful information such as published and unpublished data, personal knowledge of relevant issues, and

recommending mitigation measures associated with the proposed action. Those wishing to provide information or data relevant to the environmental or social impacts that should be included or considered in the environmental analysis can furnish this information by writing to the points of contact indicated above or by attending applicable public scoping meetings. A mailing list will also be established so that pertinent data may be distributed to interested agencies, interest groups and individuals.

Public Scoping Meeting

The scoping meeting is scheduled for October 29, 1998, at 7:00 PM, City Council Chambers, City Hall, De La Guerra Plaza, Santa Barbara, California.

[[Page 54682]]

Dated: October 2, 1998.
John P. Carroll,
Colonel, Corps of Engineers, District Engineer.
[FR Doc. 98-27373 Filed 10-9-98; 8:45 am]
BILLING CODE 3710-KF-M

Public Scoping Meeting will be held October 29, 1998. Time and location of the Public Scoping Meeting also will be announced by means of a letter, public announcements, and news releases. Public participation will be especially important in the environmental analysis by providing assistance in defining the scope of analysis in the EIS/EIR; identifying significant environmental issues and impact analysis in the EIS/EIR; and providing useful information such as published and unpublished data, personal knowledge of relevant issues, and recommending mitigation measures associated with the proposed action. Those wishing to provide information or data relevant to the environmental or social impacts that should be included or considered in the environmental analysis can furnish this information by writing to the points of contact indicated above or by attending applicable public scoping meetings. A mailing list will also be established so that pertinent data may be distributed to interested agencies, interest groups and individuals.

6. **Public Scoping Meeting:** The scoping meeting is scheduled for October 29, 1998, at 7:00 PM, City Council Chambers, City Hall, De la Guerra Plaza, Santa Barbara, California.

Date 9/10/02

Signature _____

John P. Carroll
Colonel, Corps of Engineers
District Engineer

BILLING CODE: No. 3710-KF

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS

Intent to Prepare a Draft Environmental Impact Statement/ Environmental Impact Report (DEIS/EIR) for the Lower Mission Creek, Santa Barbara, California.

AGENCY: U.S. Army Corps of Engineers, DoD.

ACTION: Notice of Intent

SUMMARY: The Mission Creek drainage area is located in and adjoining the City of Santa Barbara, California, about 100 miles northwest of the City of Los Angeles. The drainage area, comprising about 11.5-square miles, is a narrow coastal area and extends from the Santa Ynez Mountains on the north to the Pacific Ocean on the south. Mission Creek rises at about 4,000 feet elevation and flows about eight miles through the City of Santa Barbara to empty into the Pacific Ocean. The primary study area for the proposed project extends from Canon Perdido, downstream to the Pacific Ocean. The length of the project construction area is about 1.2 miles.

Enclosure

ADDRESSES: Commander, U.S. Army Corps of Engineers, Los Angeles District, Environmental Design Section, CESPL-PD-RL, P.O. Box 532711, Los Angeles, CA 90053-2325

FOR FURTHER INFORMATION CONTACT: Ms. Joy Jaiswal, Technical Manager, phone (213) 452-3871, or Mr. Edward Demesa, Study Manager, phone (213) 452-3796. The City of Santa Barbara Point of Contact is Ms. Janice Hubbell, AICP, Project Planner, phone (805) 564-5470.

SUPPLEMENTARY INFORMATION:

1. Authorization:

The Lower Mission Creek, Flood Control Project is authorized under Section 209 of the Flood Control Act of 1962 (Public Law 87-874, 87th Congress, 2nd session), approved October 23, 1962. The US Army Corps of Engineers (USACOE), in cooperation with the County Flood Control District and the City of Santa Barbara, will be conducting a feasibility study for solutions to the flooding problem along Lower Mission Creek. The study will identify, describe, and evaluate alternative plans and fully develop the recommended plan to be submitted to Congress for project authorization.

2. Background: The USACOE has been involved in this project since 1964. Lower Mission Creek, especially downstream from Carrillo Street, poses a serious flood threat to the City. In this area, a mix of residential, commercial, and public properties are subject to major damages during floods. The USACOE and the City of Santa Barbara are planning to prepare a Draft EIS/EIR to address and evaluate impacts to the environmental

resources due to the improvement/construction along Lower Mission Creek. In addition, alternative solutions and recommendations to the flood and associated problems will be included with consideration to economic, environmental and social needs of the area. In the past, public workshops have been conducted to identify the public's concerns regarding the proposed project construction. Public concerns were about aesthetics of the creek, impacts to the biological resources and recreation.

The tidewater goby (*Eucyclogobius newberryi*), Federally listed as threatened, has been identified in the lower-most portion of Mission Creek. Steelhead (*Oncorhyncus mykiss*,Federally endangered) of undetermined genetic origin also use the downstream reach of Lower Mission Creek as a channel for migration. Although sporadic in their ascent of Mission Creek from the ocean, their irregular presence in this watershed has recently been verified.

3. **Proposed Action:** Construction of a flood control channel at Lower Mission Creek, Santa Barbara, California.

4. **Alternatives:**

a. *No Action:* No improvement of the Creek.

b. *Proposed Alternative Plans:* The proposed plan would provide up to 3400 cfs (20-year flood protection) and consists of creek improvements from Canon Perdido Street to the Pacific Ocean. The improvements would include stabilized banks at a 2:1 (V:H) slope above U.S. Highway 101, while below U.S. Highway 101,

vertical walls would be the dominant bank treatment with a sloped bank applied whenever practicable. A variety of sloped bank stabilization methods will be considered, which includes stabilization of sideslopes using gabions, engineered earth, and/or stepped concrete walls. In order to increase the conveyance capacity of the creek, the alternatives would incorporate a new covered channel cutting off the "oxbow" area from just above U.S. Highway 101 and rejoining the creek near the Chapala Street bridge. The improved channel would generally follow the existing channel alignment except at the "oxbow" bypass. The "oxbow" would be left in place functioning as a low flow channel. The majority of the 12 bridges within the project reach except for Bath Street bridge and State Street bridge would require some modification or reconstruction.

5. Scoping Process:

a. Potential impacts associated with the proposed action will be evaluated. Resource categories that will be analyzed are: land use, physical environment, geology, biology, air quality, water quality, groundwater, recreational usage, aesthetics (visual quality), noise, cultural resources, transportation/ circulation, hazardous waste, socioeconomic (including)housing and safety.

b. Participation of affected Federal, State, and local resource agencies, Native American groups and concerned interest groups/individuals is encouraged in the scoping process. A

In the Superior Court of California
IN AND FOR THE COUNTY OF SANTA BARBARA

18319

In the Matter of: CITY OF SANTA BARBARA 61476-2255

NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT STMT.

PROOF OF PUBLICATION
(2015.5 C.C.P)

STATE OF CALIFORNIA}
ss}.
County of Santa Barbara}

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Santa Barbara News-Press, a newspaper of general circulation, printed and published daily in the City of Santa Barbara, County of Santa Barbara, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Santa Barbara, State of California, under date of June 9, 1952,10838 Case Number 47171; that the notice herein mentioned was set in type not smaller than nonpareil and was preceded by words printed in black-face type not smaller than nonpareil, describing in general terms the purport and character of the notice intended to be given; that the notice, of which the annexed is a printed copy, has been published in each regular issue of said Santa Barbara News-Press on the following dates, to-wit:

OCTOBER 13,

All in the year 1998 I hereby certify (or declare) under penalty of perjury that that foregoing is true and correct.

Executed on this 16TH day of OCT. 1998 at Santa Barbara , CA.

Regina a Rodriguez
Signature

RECEIVED
NOV 11 1998
CITY OF SANTA BARBARA
PLANNING DIVISION

City of Barbara

To: All Responsible and Trustee Agencies and Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Statement/ Environment Impact Report

Lead Agencies:

CEQA: City of Santa Barbara
Planning Division
Post Office Box 1990
Santa Barbara, CA 93102-1990
(805) 564-5470

NEPA: Commander
U.S. Army Corps of Engineers,
Los Angeles District
Environment Design Section,
CESPL-PD-RL
P.O. Box 532711
Lost Angeles, CA 90053-2325

Contact: Janice M. Hubbell, Project Planner
Contacts: Ms. Joy Jaiswal, Technical Manager
Mr. Ed Demesa, Study Manager

THE CITY OF SANTA BARBARA will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. The U. S. Army Corps of Engineers will be the Lead Agency for the Environmental Impact Statement (EIS). The EIR and EIS will be prepared as a joint document. We need to know the vies of you or your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Responsible and Trustee agencies will need to use the EIR/EIS prepared by our when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study [] is [X] is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

A Scoping Meeting will be held on October 29, 1998 before the Planning Commission and the U.S. Army Corps of Engineers. The meeting will begin at 7:00 PM and will be held in the City Council, City Hall, De la Guerra Plaza, Santa Barbara.

Please send your response to JANICE HUBBELL AND/OR JOY JAISWALL OR ED DEMESA at the addresses shown above. We will need the name for a contact person in your agency.

Project Title: LOWER MISSION CREEK FLOOD CONTROL PROJECT

Project Location: MISSION CREEK, BETWEEN CANON PERDIDO STREET AND PACIFIC OCEAN, CITY OF SANTA BARBARA, COUNTY OF SANTA BARBARA.

Project Description: Proposal to channelize Mission Creek from Carrillo Street to the Pacific Ocean in order to provide flood protection. See attached Initial Study and Notice of Intent for more detail.

Date: September 28, 1998
Project No.: ENV98-0330
APN: Several
ZONE: C-2, R-3, R-4, P-R, HRC-1, HRC-2 and S-D-3

Reference: California Administrative Code, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Oct13/98--18319

Notice of Preparation

To: All Responsible and Trustee Agencies and Interested Parties

Subject: Notice of Preparation of a Joint Environmental Impact Statement/Environmental Impact Report

Lead Agencies:

CEQA: City of Santa Barbara
Planning Division
Post Office Box 1990
Santa Barbara, CA 93102

Contact: Janice M. Hubbell., Project Planner

NEPA: Commander
U.S. Army Corps of Engineers, Los Angeles District
Environmental Design Section, CESPL-PD-RL
P.O. Box 532711
Los Angeles, CA 900 53-2325

Joy Jaiswal, Technical Manager or Ed Demesa, Study Manager

The City of Santa Barbara will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. The U.S. Army Corps of Engineers will be the Lead Agency for the Environmental Impact Statement (EIS). The EIR and EIS will be prepared as a joint document. We need to know the views of you or your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Responsible and Trustee agencies will need to use the EIR/EIS prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study ([ ] is [X] is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice.

A Scoping Meeting will be held on October 29, 1998 before the Planning Commission and the U.S. Army Corps of Engineers. The meeting will begin at 7:00 PM and will be held in the City Council Chambers, City Hall, De la Guerra Plaza, Santa Barbara.

Please send your response to Janice Hubbell and/or Joy Jaiswal or Ed Demesa at the addresses shown above. We will need the name for a contact person in your agency.

Project Title: Lower Mission Creek Flood Control Project

Project Location: City of Santa Barbara, County of Santa Barbara

Project Description: Proposal to channelize Mission Creek from Carrillo Street to the Pacific Ocean in order to provide flood protection. See attachment for more detail.

Date September 28, 1998

Signature: _____

Project No.: ENV98-0330

Title: Project Planner

APN: Several

Telephone: (805) 564-5470

ZONE: C-2, R-3, R-4, P-R, HRC-1, HRC-2 and S-D-3

Reference: California Administrative Code, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

[J:/jh/mis/miscreek.nop]

REVISED:3-20-91

CITY OF SANTA BARBARA
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION

INITIAL STUDY/ENVIRONMENTAL CHECKLIST ENV98-0330

LOWER MISSION CREEK FLOOD CONTROL PROJECT

This Initial Study has been completed for the project described below because the project is subject to review under the California Environmental Quality Act (CEQA) and was determined not to be exempt from the requirement for the preparation of an environmental document. The information, analysis and conclusions contained in this Initial Study are the basis for deciding whether a Negative Declaration (ND) is to be prepared or if preparation of an Environmental Impact Report (EIR) is required to further analyze impacts. Additionally, if preparation of an EIR is required, the Initial Study is used to focus the EIR on the effects determined to be potentially significant.

PROJECT ADDRESS/LOCATION (See Vicinity Map, Exhibit 1)

The project area includes Mission Creek and properties immediately adjacent to the creek from just downstream of Carrillo Street to the ocean. See Project Description, Vicinity Map and Site Plan for more detail.

ENVIRONMENTAL REVIEW REQUIREMENTS

The Santa Barbara County Flood Control District is the Local Sponsor according to the Corps. However, the project is entirely within Santa Barbara City limits. The District and the City have agreed that the City will act as the Lead Agency for purposes of CEQA because of the project location. This is allowed under CEQA Guidelines Section 15051(d). The District will participate in the environmental review process through administrative review of the environmental document and participation in consultant selection.

The City and the Corps have worked out an agreement to prepare a joint Environmental Impact Statement/Environmental Impact Report (EIS/R). This is consistent with CEQA Guidelines Section 15222, which encourages the preparation of joint documents. The Corps and City Planning staff will complete the majority of the work. If it is determined to be necessary, subconsultants will be hired to assist with certain areas of technical analysis. Concurrently with the EIS/R, the Corps will prepare the Feasibility Study. This Study continues the work done in the Reconnaissance Flood Control Study. It further defines and tests the project. The information developed in the Study is used to determine impacts in the EIS/R.

PROJECT DESCRIPTION (See Site Plan, Exhibit 2)

The United States Army Corps of Engineers (Corps) has been authorized by Congress to channelize a portion of Mission Creek in order to provide flood protection. This project would be completed in cooperation with the Santa Barbara County Flood Control District (the Local Sponsor) and the City of Santa Barbara (the Lead Agency). Mission Creek, which flows through the City of Santa Barbara, poses a serious flood threat to the City, especially along lower reaches of the stream, downstream from Carrillo Street. In this area, a mix of residential, commercial and public properties is subject to major damage during floods. More background on historic flooding is contained in the Corps' Reconnaissance Flood Control Study (Exhibit 3).

The plan would consist of creek improvements from Canon Perdido Street to the Pacific Ocean. The improvements would include stabilized banks at a 2:1 (V:H) slope above Highway 101, while below Highway 101, vertical walls would be the dominant bank treatment with a sloped bank applied whenever practicable. A variety of sloped bank stabilization methods would be considered, including stabilization of sideslopes using gabions, engineered earth, and stepped concrete walls. In order to increase the conveyance capacity of the creek, high flows would be diverted to a covered segment, which would bypass an existing bend in the channel where it crosses U.S. Highway 101.. The improved channel would generally follow the existing channel alignment except at the oxbow bypass. The oxbow would be left in place functioning as a low flow channel. The channel may vary from 50 to 75 feet in width and may vary from five to 15 feet deep. It would include a collection system and would join with an existing concrete channel that now terminates near Canon Perdido Street.

In order to achieve the required channel width, it would be necessary to demolish and replace several roadway bridges over the creek. There are twelve bridges within the project reach. Bridges at several locations would be replaced or modified during construction of the flood control project. These replacements and/or modifications will be further defined in the Corps' Feasibility Report, prepared concurrently with the EIS/R.

Areas of low quality oak woodland habitat and estuarine habitat would be lost. The mitigations identified in the Corps' 1986 Environmental Impact Statement (EIS) for the previous Lower Mission Creek Flood Control Project included off-site construction of 1.6 acres of high quality riparian woodland and 1.0 acre of soft bottom estuarine habitat at Lake Los Carneros and Atascadero Creek, respectively. However, the new Environmental Impact Statement/Environmental Impact Report (EIS/R) will look at possible onsite mitigation instead.

Permanent flood control maintenance and access easements would be purchased and temporary construction and access easements will be obtained prior to the start of construction for the entire area of construction. It will also be necessary to provide one or more construction staging and storage areas.

Construction of the channel would result in impacts on existing improvements on some properties yet to be determined. The Corps' Feasibility Study will include a final alignment determination. The final alignment will resolve which properties would be affected by the project. The impacts upon these properties will be discussed in the EIS/R.

Construction is expected to begin in either summer 2000 or summer 2001 and would last one year, with work done in accordance with all applicable environmental regulations and timeframes.

APPLICANT/PROPERTY OWNER NAME AND ADDRESS

Colonel Robert E. Davis
Environmental Design Section, CESPL-PD-RL
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 532711
Los Angeles, CA 90053-2325

Mr. Pat Kelly, City Engineer / Assistant Public Works Director
City of Santa Barbara Public Works Department
630 Garden St.
P.O. Box 1990
Santa Barbara, CA 93102

Mr. Steven Wagner
Santa Barbara County Flood Control District
123 E. Anapamu St.
Santa Barbara, CA 93101

ENVIRONMENTAL SETTING

The project site extends from Canon Perdido Street to the ocean. The riparian habitat along this stretch of Mission Creek is heavily disturbed by adjacent development and previous flood control efforts. Some areas of this reach are less disturbed than others. There is also a small estuary at the mouth of the creek. Existing vegetation and habitat are discussed in more detail under Biological Resources.

In some areas, the natural creek bank remains. In other areas, gabions have been installed or the walls have been covered with gunite. Mission Creek is channelized in a trapezoidal channel between Micheltorena Street and Canon Perdido Street. There are also isolated sections of concrete wall along the creek. Near the mouth, bulkheads have been installed.

From Carrillo Street south to the freeway, structures along the creek are primarily residential, including both single and multiple family development. South of the freeway, most of the uses are commercial, ranging from small retail and restaurant operations to hotels and motels. In addition, the Union Pacific Railroad Station is near the edge of the project area and the railroad tracks cross Mission Creek just downstream from the freeway.

PLANS AND POLICY DISCUSSION

There are several General Plan and Local Coastal Plan goals and policies that relate to Mission Creek. As applied to the proposed project, some of these policies are contradictory. There are visual and open space policies that call for the maintenance and enhancement of creekside areas as well as biological resource policies that call for protection of creek habitats and the return of disturbed creeks to their natural state. In other areas, drainage, flood control and safety policies require floodplain management and hazard reduction programs that may result in the need for channelization. The Conservation Element makes it clear that all of these policies must be considered together when weighing proposed flood control projects. A full discussion of plans and policies will be contained in the EIS/R.

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

A Mitigation Monitoring and Reporting Program will be prepared as part of the EIS/R for the subject project in compliance with Public Resources Code §21081.6

ENVIRONMENTAL CHECKLIST

The following checklist contains questions concerning potential changes to the environment that may result if this project is implemented. If no impact would occur, **NO** should be checked. If the project might result in an impact, check **YES** indicating the potential level of significance as follows:

Known Significant: Known significant environmental impacts. Further review needed to determine if there are feasible mitigation measures and/or alternatives to reduce the impact.

Potentially Significant: Unknown, potentially significant impacts which need further review to determine significance level.
Significant, avoidable: Potentially significant impacts which can be mitigated to less than significant levels.

Less Than Significant: Impacts which are not considered significant.

1. AESTHETICS. Could the project:		NO	YES
			Level of Significance
a)	Affect a public scenic vista or designated scenic highway or highway/roadway eligible for designation as a scenic highway?		Potentially significant
b)	Have a demonstrable negative aesthetic effect in that it is inconsistent with Architectural Board of Review or Historic Landmarks Guidelines or guidelines/criteria adopted as part of the Local Coastal Program?		Potentially significant
c)	Create light or glare?	✓	

Discussion:

1.a-b. Existing development and flood control (both legal and impromptu) along the creek banks have altered the riparian habitat of the creek. Because of this development, there is a greatly reduced vegetative understory. There are also a variety of trees, both native and exotic, located in the area that may be affected by the project.

Based on community standards, it is likely that channelization will be seen as having a significant visual impact that is possibly unavoidable. A number of trees will be lost as a result of the grading necessary for the project. Some of these trees are important for aesthetic reasons in that they provide visual relief in an urban setting. Some may qualify as skyline trees that provide neighborhood landmarks. Loss of such trees could affect the City's skyline. The project will require fencing along the banks to prevent access to the creek. Depending on the type of fencing used, obstruction of views beyond Mission Creek could occur. The design of the channel in the Waterfront Area is critical because so many people, both residents and tourists, view it. This area has existing visual and aesthetic problems due to trash and water stagnation. Regular maintenance will help reduce some of these problems. To eliminate the smell, aeration or other solutions will be needed.

It will be necessary to outline, in some detail, potential mitigation measures in the new document. Input from the Architectural Board of Review (ABR) and the Historic Landmarks Commission (HLC) will be useful in completing this section. The previous project, which proposed full concrete channelization, was reviewed at a joint meeting of the ABR and HLC on June 15, 1992. Their comments included the following: 1) Request that alternatives that do not involve full concrete channelization be studied in more detail; 2) There was substantial concern expressed about the appearance of the creek mouth, both in terms of removing the stagnant water that stands between the mouth and Mason Street and the design of the grouted stone and concrete-walled opening; 3) Concern about the impact of the project on the Moreton Bay Fig Tree; 4) Suggest working with landscape architects to smooth and soften impacts, including berming, significant use of trees and bushes with a variety of colors, textures and seasonality; 5) Concern that neighborhoods are split in a clear and defined way by project; and 6) Look at individual

properties for individual enhancements. The first concern regarding consideration of other alternatives that do not involve full channelization has been answered by the revised project. However, the other concerns remain to a lesser or greater degree.

1.c The project will not result in a change to light or glare.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

2. AIR QUALITY. Could the project:		NO	YES
			Level of Significance
a)	Violate any air quality standard or contribute to an existing or projected air quality violation?		Potentially significant, short-term
b)	Expose sensitive receptors to pollutants?	✓	
c)	Create objectionable odors?	✓	
Is the project consistent with the County of Santa Barbara Air Quality Attainment Plan? Yes			

Discussion:

2.a-b. During construction, there will be substantial air emissions from construction equipment and vehicles, as well as dust generated by grading. Given the area's non-compliance with carbon monoxide (CO) and particulate standards, this will likely result in a short-term impact. In addition, construction-related traffic will contribute to existing ROC and NOx problems at various intersections, particularly at Carrillo/ U.S. 101. The EIR/S will include the necessary analysis of air quality impacts and a construction management plan that minimizes the potential impacts.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

3. BIOLOGICAL RESOURCES. Could the project result in impacts to:		NO	YES Level of Significance
a)	Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?		Potentially Significant
b)	Locally designated historic, Landmark or specimen trees?		Potentially Significant
c)	Natural communities (e.g. oak woodland, coastal habitat, etc.).		Potentially Significant
d)	Wetland habitat (e.g. marsh, riparian, and vernal pool)?		Potentially Significant
e)	Wildlife dispersal or migration corridors?		Potentially Significant

Discussion:

Data included in the original EIS for this project were gathered from a variety of sources including U.S. Fish and Wildlife Service (USFWS) fieldwork which resulted in a 1986 report, a 1983 study performed by Chambers Consultants and Planners (now Chambers Group), a 1984 report by Scott Cooper and Nina Hemphill and historic data from the Santa Barbara Museum of Natural History, the Santa Barbara Botanic Gardens and the University of California at Santa Barbara Vertebrate Zoology Museum. This data is further updated by studies performed in 1994 by John Storrer for the Mission Creek Consensus Group. Most of the studies assessed the entire drainage for Mission and Rattlesnake Creeks. In some areas, small boulders, broken rocks and cobbles line the creek. There are also two areas where the streambed is interrupted by concrete bottomed channel: 1) a small section of a concrete channel primarily above Carrillo Street that extends downstream into the project area close to Castillo Street; and 2) approximately 0.1 mile of rectangular concrete bottomed/stone-walled channel from the Union Pacific Railroad tracks to Chapala Street. There has also been a variety of modifications to the stream banks including grouted stone, sacked concrete, pipe and wire revetments, gabions and, near the ocean, bulkhead structures.

This lower reach of Mission Creek is typically dry from early summer to the beginning of the next wet season. Natural flow regimes are often altered by releases through Mission Tunnel from Gibraltar Reservoir in order to flush debris from the tunnel and for groundwater recharge. These releases typically soak into the ground above the Santa Barbara Mission.

3.a., c., d. As recently as 1993, there were no State or Federally-listed Endangered or Threatened Species in Mission Creek. However, in 1994, the Tidewater goby (*Eucyclogobius newberryi*) was Federally listed as an Endangered species. In 1998, the Steelhead (*Salmo gairdnerii*) was also Federally listed as an Endangered species. The Tidewater goby has been confirmed to exist in the estuary of Mission Creek and other creeks in the area. The Steelhead historically used Mission Creek for spawning and growth of young fish. It appears that Steelhead may have returned to Mission Creek in the last few years. There is some indication that Steelhead may be in the creek between Carrillo and Mission Streets and in Rattlesnake Creek, a tributary of Mission Creek. A candidate for listing, the California Red-legged frog (*Rana*

aurora draytonii), may also exist in Mission Creek in the project area. One candidate threatened plant species, Hoffman's sanicle (*Sanicula hoffmanii*) exists within the creek drainage; however, it is outside the project area, above the Botanic Gardens and in Rattlesnake Canyon. In addition, the State and Federally listed Endangered California brown pelican (*Pelecanus occidentalis californicus*) has been observed roosting and loafing in small numbers in the mouth of Mission Creek.

Ongoing development and flood control along the creek banks have altered the riparian habitat of the creek. Because of this development, there is a greatly reduced vegetative understory. Because of the urbanization in this area, it supports a lower number of species and individuals than is the case in the rest of the Mission Creek drainage. However, this portion of lower Mission Creek still operates as a wildlife corridor. There are also a variety of trees, both native and exotic, located in the area, which may be affected by the project.

There are remnants of the original estuarine plant community at the mouth of Mission Creek. Isolated patches of native plants exist along the creek banks, although the majority of the vegetation is composed of non-native, weedy species. A small tidal lagoon is present north of Cabrillo Boulevard and serves as a temporary resting and feeding site for migratory waterfowl, as well as providing habitat for several species of small fish. Finally, the creek meanders across the sand to the ocean just east of Stearns Wharf.

The project would involve the loss of existing habitat and loss of trees that are part of urban vegetation. It will be necessary to replace lost Riparian Woodland habitat. There is a potential for such replacement between Gutierrez Street and U.S. 101 where Caltrans owns land that could be appropriately graded and vegetated. In addition, the existing channel south of the railroad between Chapala and Montecito Streets will be maintained and used as a channel during low flow periods. This will preserve the remnant freshwater marsh in this area.

The project will retain an earth bottom which will allow Steelhead to move upstream for spawning. There are, however, existing obstacles on Mission Creek, especially the Caltrans channel between Canon Perdido and Micheltorena Streets. The project may allow the Tidewater goby to use the lower channel area above Cabrillo Boulevard for foraging, resting and breeding.

Questions have been raised about the appearance and smell of the estuary between Mason Street and the beach. The smell is caused by the loss of oxygen resulting from stagnation of the water. The possible options for reducing appearance and smell problems include:

- Breaching the sand bar created at the mouth of the creek when it is not flowing. This allows ocean water to flow into and cleanse the estuary area. However, this also results in a rapid change in the salinity which could kill the entire population of the Tidewater goby in Mission Creek. Because it is an endangered species, this approach may be precluded.

- Aerating the water which would reduce oxygen loss and resulting stagnation. Apparently, this is a fairly expensive approach.

- Releasing enough water from Gibraltar Reservoir for water to reach the estuary during the summer months. This would dilute the stagnant brackish water with oxygen-rich fresh water.

These options and others will require further study, in part because of their potential impact on the Tidewater goby.

Consideration of future operation and maintenance of the project is an important part of the environmental review process. In order to maintain the channel so that it can contain the design flow, it will be necessary to restrict the growth of vegetation in the channel. Maintenance may have an effect on the wildlife living in the channel. A description of how maintenance will be carried out needs to be included in the project description (in the Feasibility Study) so that its impacts can be considered in the EIS/R.

3.b. The Moreton Bay Fig Tree at the intersection of Chapala and Montecito Streets was designated as a City Landmark in 1982. In addition, in 1997, it was added to the California Big Tree Register. It is recognized as sharing the distinction as the largest tree of its type in California (the other tree is in Balboa Park in San Diego). Additional discussion of the tree's importance is included under Cultural Resources. The proposed underground culvert would pass near this tree and it is important that the culvert be designed to avoid its roots and dripline. As noted under Aesthetics, other trees, particularly between Mason and Yanonali Streets, and in several locations north of the freeway, may have importance as skyline trees.

3.e. The channelization and required safety fencing along the channel could result in significant barriers to the movement and activities of resident wildlife.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

4. CULTURAL RESOURCES. Could the project:		NO	YES
			Level of Significance
a)	Disturb archaeological resources?		Potentially Significant
b)	Affect a historic structure or site designated or eligible for designation as a National, State or City landmark?		Potentially Significant
c)	Have the potential to cause a physical change which would affect ethnic cultural values or restrict religious uses in the project area?	✓	

Discussion:

4.a. CA-SBa-27, a Chumash archaeological site, is located along the west side of Mission Creek between State Street and Mason Street (generally). It most likely consists of secondary scatter in this area. This site does not appear to be the same site ("Twin Palms") as described in the 1986 EIS (p.24), based on the described location. Additional study may be required.

4.b. A Structure of Merit at 15 W. Mason Street may be altered or demolished. It was constructed in 1924-1925 and was originally the garage for the Hotel Californian. The Historic Landmarks Commission designated it as a Structure of Merit in 1988. The Resolution designating the property noted that it is one of

the last remaining hotel garages in Santa Barbara and that it also has architectural merit. In addition, it is likely that the Potter Hotel Foot Bridge near Chapala Street would need to be removed to accommodate the outlet for the culvert. Also, some of the bridges that will be removed may qualify as historic structures. Finally, the Moreton Bay Fig Tree at the intersection of Montecito and Chapala Streets is a designated City Landmark. As noted above, it is also listed on the California Big Tree Register as a Co-Champion with another Moreton Bay Fig Tree in Balboa Park. The City Urban Historian has also indicated that she believes that it is eligible for listing on the California and National Registers of Historic Places.

Additional work on the historic and/or architectural value of other buildings to be removed will be assessed in the EIS/R.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

5. GEOPHYSICAL. Could the project result in or expose people to:		NO	YES
			Level of Significance
a)	Seismicity: fault rupture?	✓	
b)	Seismicity: ground shaking or liquefaction?		Significant, avoidable
c)	Seismicity: seiche or tsunami?	✓	
d)	Landslides or mudslides?	✓	
e)	Subsidence of the land?	✓	
f)	Expansive soils?	✓	
g)	Excessive grading or permanent changes in the topography?	✓	

Discussion:

5.a., b. According to the Master Environmental Assessment (MEA), the Mesa Fault emerges onto land west of Stearns Wharf and trends northwesterly toward U.S. 101. From there, the fault generally parallels U.S. 101 through the project area. It appears that none of the project area is actually in the fault zone. However, the MEA does indicate that, south of the Union Pacific Railroad (UPRR), the project is in an area of low to moderate damage to 1 to 3 story structures, with potential for moderate damage to large structures. This same area is also subject to high liquefaction potential. The remainder of the project area north of the UPRR is subject to low damage level to 1 to 3 story structures and moderate damage to large structures. It is also subject to questionable to conditional liquefaction potential. Prior to construction, it will be necessary to complete geologic and soils reports to mitigate potential impacts to acceptable levels as outlined in Mitigation Measure GEO-1 below.

5.c. The entire project is within the tsunami run-up area. However, construction of this project should somewhat improve drainage problems resulting from a tsunami.

5.d.-g.. There is no chance that this project would result in landslides or mud slides. In addition, subsidence of land would not occur nor are there expansive soils. There is a potential for changes in topography and ground surface relief features; however, these would not be considered to be significant.

Mitigation Measure(s):

GEO-1 Prior to completion of final design, soils and geologic reports will be required in order to assess potential impacts which may result from liquefaction and seismic events, and to address/recommend any required special design features to minimize potential impacts. The report must be submitted prior to receiving any discretionary approvals, and all recommendations and mitigation measures contained in the report must be incorporated into the project's plans.

Residual Impact: With the incorporation of the above mitigation measure, the project's geophysical impacts will be less than significant.

6. HAZARDS. Could the project involve:		NO	YES
			Level of Significance
a)	A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?		Potentially Significant
b)	The creation of any health hazard or potential health hazards?	✓	
c)	Exposure of people to existing sources of potential health hazards?	✓	
d)	Increased fire hazard in areas with flammable brush, grass, or trees?	✓	

Discussion:

6.a. During the construction process, it is possible that construction materials will be accidentally released into the streambed, resulting in impacts on humans and on nearby habitat. The contractor will be required to prepare and implement a Storm Water Pollution Prevention Plan in order to minimize such impacts. The contents of such a plan will be outlined in the EIS/R.

6.b. Presently, there is almost unlimited access to Mission Creek from streets crossing the creek and from the rear of properties that back onto the creek. This has led to safety issues during heavy flows, including the potential for people to be swept down the creek.

A concern was raised during the scoping process for the previous project in 1992 about potential public

safety issues resulting from channelization. Water would flow more swiftly, thus potentially resulting in more danger to people who fall in during heavy flows. In addition, there was concern that people could fall into the vertical sided channel when the creek is low or dry and be injured. To some degree, this concern remains with the new project. Although the walls will not be vertical in much of the project area (except south of the freeway), they will still be steep-sided. However, it appears possible to mitigate these impacts through access control and the provision of rescue points.

6.c. Concern had been expressed that, with the loss of groundwater recharge in lower Mission Creek resulting from full channelization, existing contamination in shallow groundwater aquifers could spread. However, with the maintenance of a soft bottom, this will no longer be an issue.

6.d. This project will not result in increased fire hazard.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

7. NOISE. Could the project result in:		NO	YES
			Level of Significance
a)	Increases in existing noise levels?		Potentially Significant, short-term
b)	Exposure of people to severe noise levels?		Potentially Significant, short-term

Discussion:

7.a., b. During construction, there will be substantial noise generated by construction equipment and vehicles. Because much of the affected area is residentially zoned with a maximum ambient noise level allowance of 60 dB(a) CNEL, it is likely that the project will result in short-term significant unavoidable noise impacts. While the City does not consider such short-term impacts to be significant, the EIS/R will include the necessary analysis of noise impacts and a construction management plan that minimizes the potential impacts.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

8. POPULATION AND HOUSING. Could the project:		NO	YES Level of Significance
a)	Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?	✓	
b)	Displace existing housing, especially affordable housing?		Potentially Significant

Discussion:

8.a. Because this area is already heavily developed, it is not expected that completion of this flood control project will induce substantial growth.

8.b. Some housing units may be removed as a result of the project. The residents will be relocated as part of the project. The number of units affected will be determined in the Feasibility Study, which will be completed concurrent with the Draft EIS/R. Previous flood control projects considered involved the loss of no more than three units. However, the presently proposed project channel is generally wider than previously proposed projects, resulting in a potential to impact greater numbers of residential units. If the current project has an effect similar to previous projects, it will not be considered to result in a significant environmental impact on housing supply.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

9. PUBLIC SERVICES. Could the project have an effect upon, or result in a need for new or altered services in any of the following areas:		NO	YES Level of Significance
a)	Fire protection?	✓	
b)	Police protection?	✓	
c)	Schools?	✓	
d)	Maintenance of public facilities, including roads?	✓	
e)	Other governmental services?	✓	
f)	Electrical power or natural gas?	✓	
g)	Water treatment or distribution facilities?	✓	
h)	Sewer or septic tanks?	✓	
i)	Water distribution/demand?	✓	
j)	Solid waste disposal?		Potentially Significant

Discussion:

9.a.-c. This project is not expected to result in the need for increased police or fire protection or for increased school capacity.

9.d Existing streets in the project area will likely be damaged during construction. However, standard construction contracts require repair to at least equivalent pre-project conditions by the contractor. In addition, several bridges will be modified or replaced as a result of the proposed project.

9.e.-i. As a result of the channelization, it will be necessary to relocate existing utilities, primarily water, storm, gas and sewer lines and various telephone, cable television and electrical cables. No significant impacts are expected to occur. In addition, it is expected that drainage in the area will improve, especially during heavy storms.

9.j. Because the new channel will be generally wider than the existing channel, it will be necessary to dispose of an as yet unknown amount of graded material. Because the Tajiguas Landfill is close to capacity, it will be necessary to develop a plan for appropriate disposal of such material.

Mitigation Measure(s): To be determined in the EIS/R (solid waste only).
Residual Impact: To be determined in the EIS/R (solid waste only).

10. RECREATION. Could the project:		NO	YES Level of Significance
a)	Increase the demand for neighborhood or regional parks or other recreational facilities?	✓	
b)	Affect existing parks or other public recreational facilities?	✓	

Discussion:

10.a. Presently, Mission Creek provides some recreational opportunities, especially above U.S. 101. Children play in the creek. Some people walk their dogs or hike in the creek. There are no parks or recreational facilities in the West Downtown area so the creek provides informal recreation opportunities. East Beach and the Moreton Bay Fig Tree Park provide recreational opportunities south of U.S. 101. In addition, Railroad Park, just south of the railroad, at the depot, will be completed in the near future.

The existing recreational opportunities will be impaired. Access to the creek will be controlled. However, it is possible that new opportunities for "pocket parks" may be created from left over parcels purchased for right-of-way purposes. Provision of additional park spaces may also help to mitigate visual impacts.

10.b. The proposed project would have minimal impacts on existing park facilities, primarily East Beach. While portions of the area around the mouth of Mission Creek would be blocked off during construction, this would be a short-term concern that would not result in significant recreation impacts. However, at the request of area residents and the Corps, a discussion of recreation impacts will be included in the EIS/R.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

11. TRANSPORTATION/CIRCULATION. Could the project result in:		NO	YES Level of Significance
a)	Increased vehicle trips?		Potentially Significant
b)	Hazards to safety from design features (e.g. sharp curves, inadequate sight distance or dangerous intersections)?	✓	
c)	Inadequate emergency access or access to nearby uses?	✓	
d)	Insufficient parking capacity on-site or off-site?	✓	
e)	Hazards or barriers for pedestrians or bicyclists?		Potentially Significant

Discussion:

11.a-e. During construction, street blockages will occur and considerable construction traffic will be generated which may result in short-term significant unavoidable impacts in the construction area and on travel routes to and from the area. The EIS/R will analyze intersections and circulation patterns.

Analysis should focus on impacts to the Carrillo Corridor, the Haley/Gutierrez one-way couplet, the Waterfront and to the Haley/De la Vina, Haley/Castillo and Castillo/101 intersections. In addition, it should focus on impacts on parking, pedestrians and bicyclists.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

12. WATER ENVIRONMENT. Could the project result in:		NO	YES Level of Significance
a)	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	✓	
b)	Exposure of people or property to water related hazards such as flooding?	✓	
c)	Discharge into surface waters?	✓	
d)	Change in the quantity, quality, direction or rate of flow of ground waters?	✓	
e)	Increased storm water drainage?	✓	

Discussion:

12.a., b., c., e. This channelization will likely affect absorption rates and drainage patterns in the area; however, these impacts are not expected to be significant. In fact, they may be beneficial in improving drainage in the affected area. In addition, the project will improve the flow of floodwaters and reduce the exposure of people and property to flooding.

The channelization of Mission Creek may result in changes in deposition or erosion of beach sands. It is expected that less settlement would occur in the creek bed, with more material being carried to the ocean due to the increase in velocity and energy resulting from channelization.

This project is not expected to result in either an increase in discharge into surface waters or increased storm water drainage, but will instead further channelize existing surface and storm waters.

12.d. There has been some disagreement on the effect of the project on City groundwater supplies and on the quality of the groundwater. The Water Commission, at its April 13, 1992 meeting recommended staff to: 1) include peer review and testing of recharge potential and an independent party review of existing data in the EIR on the Mission Creek lining project; 2) evaluate in EIR the Army Corps of Engineer's lining proposal and the Urban Creeks Council's alternative; and 3) have the Army Corps assess full costs of recharge loss. Their request was based on information presented that indicated that loss of recharge might result in saltwater intrusion and other impacts. This discussion was based on the previously proposed fully channelized project and would no longer apply. In any case, the "Peer Review of Flood Flow and Groundwater Issues" report, prepared by David Dawdy, concluded that the impacts of paving the channel bottom on water supply, salt water intrusion and water quality would not be significant.

Mitigation Measure(s): To be determined in the EIS/R.
Residual Impact: To be determined in the EIS/R.

MANDATORY FINDINGS OF SIGNIFICANCE.		YES	NO
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildfire population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	✓	
b)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		✓
c)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	✓	
d)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	✓	

INITIAL STUDY CONCLUSION

On the basis of this initial evaluation it has been determined that:

The proposed project MAY have a significant effect on the environment, and further study in an ENVIRONMENTAL IMPACT REPORT is required.

Case Planner/Initial Study Preparer: Janice M. Hubbell

Environmental Analyst: Debra A. Andaloro

Date: Oct. 8, 1998

Exhibits

1. Vicinity Map
2. Site Plan and Channel Cross-Section
3. Reconnaissance Flood Control Study, without Technical Documentation (distributed separately, available at Planning Office)
4. Mission Creek Flood Control Project Alternatives Analysis (distributed separately, available at Planning Office)
5. Mission Creek Consensus Group Recommendations, Council Agenda Report, September 23, 1994 (distributed separately, available at Planning Office)

LIST OF SOURCES USED IN PREPARATION OF THIS INITIAL STUDY

The following sources used in the preparation of this Initial Study are located at the Community Development Department, Planning Division, 630 Garden Street, Santa Barbara and are available for review upon request.

California Environmental Quality Act (CEQA) & CEQA Guidelines

Dawdy, David R. Peer Review of Flood Flow and Groundwater Issues for the Lower Mission Creek Channelization EIR/SEIS. Report to the City of Santa Barbara. Undated (1993).

General Plan Circulation Element

General Plan Conservation Element

1995 Housing Element

General Plan Land Use Element

General Plan Noise Element w/appendices

General Plan Map

General Plan Seismic Safety/Safety Element

Geology Assessment for the City of Santa Barbara

Institute of Traffic Engineers Parking Generation Manual

Institute of Traffic Engineers Trip Generation Manual

Kennedy/Jenks Consultants. Final Report, Mission Creek Flood Control Project Alternatives Analysis. Prepared for the City of Santa Barbara. August 1994.

Local Coastal Plan (Main & Airport)

Master Environmental Assessment

Parking Design Standards

Philbrick, Ralph. Final Program Environmental Impact Report for Santa Barbara County Flood Control Routine Maintenance Activities. Prepared for the Santa Barbara County Resource Management Department (90-EIR-7). March 27, 1991.

Santa Barbara Municipal Code & City Charter

Special District Map

Storrer, John, 1994a. Biological Resources Fatal Flaw Investigation of Potential Debris Basin Sites - Mission Creek Flood Control Alternatives Analysis. Letter report to Dr. Rudolf E. Ohlemutz, Kennedy/Jenks Consultants, Ventura, California. April 11, 1994.

_____, 1994b. Biological Resources Fatal Flaw Analysis - Mission Creek Flood Control Alternatives Analysis. Letter report To Dr. Rudolf E. Ohlemutz, Kennedy/Jenks Consultants, Ventura, California. June 21, 1994.

Swift, Camm C., Jack L. Nelson, Carolyn Maslow and Theodore Stein; Biology and Distribution of the Tidewater Goby, *Eucyclogobius newberryi* (Pisces: Gobiidae) of California; Contributions in Science, No. 404, pp. 1-19, 14 March 1989; Natural History Museum of Los Angeles.

Uniform Building Code as adopted by City

United States Army Corps of Engineers, Los Angeles District. Feasibility Report and Environmental Impact Statement, Lower Mission Creek Interim Santa Barbara County Streams, California. August 1986.

_____. Santa Barbara Streams – Lower Mission Creek, Reconnaissance Flood Control Study, November 1995

United States Fish and Wildlife Service, 1994. Brewer, Donna C., Cathy Brown and Thomas Davidson, principal authors. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Tidewater Goby; Federal Register, Vol. 59, No. 24, pp. 5494- 5498, February 4, 1994.

Zoning Ordinance & Zoning Map

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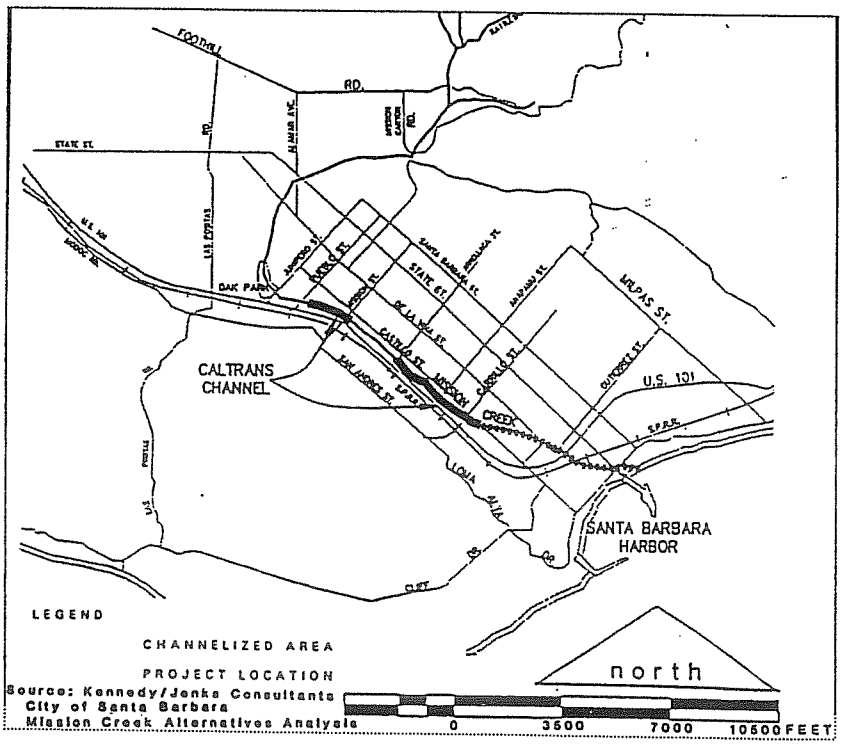
ENVIRONMENTAL SCOPING MEETING
AND NOTICE OF PREPARATION FOR

US Army Corps of Engineers
Los Angeles District

YOUR OPPORTUNITY TO IDENTIFY ISSUES FOR ENVIRONMENTAL EVALUATION OF THE

LOWER MISSION CREEK FLOOD CONTROL PROJECT



- ✓ Thursday Evening October 29, 1998
- ✓ 7:00 PM
- ✓ Santa Barbara City Hall, De la Guerra Plaza

The U.S. Army Corps of Engineers and the City of Santa Barbara are holding a public environmental scoping meeting on October 29, 1998 to seek public comments on the potential environmental impacts that should be studied on the Lower Mission Creek Flood Control Project authorized by Congress.

The proposed plan would consist of creek improvements from Canon Perdido Street to the Pacific Ocean. The improvements would include stabilized banks at a 2:1 (V:H) slope above Highway 101, while below Highway 101, vertical walls would be the dominant bank treatment with a sloped bank applied whenever practicable. A variety of sloped bank stabilization methods would be considered, including stabilization of sideslopes using gabions, engineered earth, and stepped concrete walls. In order to increase the conveyance capacity of the creek, high flows would be diverted to a covered segment, which would bypass an existing bend in the channel where it crosses U.S. Highway 101. The improved channel would generally follow the existing channel alignment except at the oxbow bypass. The oxbow would be left in place functioning as a low flow channel. The channel may range from 50 to 75 feet in width and may be from five to 15 feet deep. It would include a collection system and would join with an existing concrete channel that now terminates near Canon Perdido Street. If you have questions about the project, please contact Jan Hubbell, Project Planner, at 564-5470. You may submit written comments no later than November 13, 1998 to: ATTN: Jan Hubbell, Planning Division, P.O. box 1990, Santa Barbara, CA 93102

LOWER MISSION CREEK FLOOD CONTROL PROJECT

EIS/EIR SCOPING COMMENTS

1. Richard A. Stromme, Railroad Advocates, October 10, 1998

Concerned that the City is trying to kill the Landmark Moreton Bay Fig Tree by constructing the culvert from Gutierrez Street to Yanonali Street.

Says cleaning out culvert would be difficult and costly.

Says culvert would be clogged with debris and would create flooding.

The culvert would go through the roots of the tree, resulting in its death.

Loss of view of creek due to culvert.

People and criminals living and hiding in culvert.

New facilities at station would be destroyed.

The existing sandstone walls at Mission Creek would be destroyed.

Railroad operations would be disrupted by construction of project.

The existing channel at the station is clogged by trees and shrubs, leading to flooding. Who's responsible for maintenance?

The steep banks will not result in any linear park that is needed in overcrowded area. Construct sloping banks for a usable park.

2. *Edward B. Cella, Santa Barbara City Historic Landmarks Commissioner, October 15, 1998

The project area is an old established residential neighborhood, characterized by buildings from the turn of the century to the late 1930s. Designated and potential historic and cultural resources must be identified early.

No professional survey has been done of much of the area, especially north of the freeway and the existing survey below the freeway is more than five years old. All of the affected area must be resurveyed.

Section 106 requires full environmental disclosure of impacts to historic resources. Mitigation must apply to both the interior and exterior of resources and photographic HABS/HAER documentation is not sufficient mitigation.

As much green space and rustic character that exists should be maintained. Use formally designed bridges, natural boulders and sycamores.

3. *Barry Kaufman, Family Service Agency of Santa Barbara, October 16, 1998

   Have bank erosion problems along their property (123 W. Gutierrez St.). Bank has eroded so much that three very large ficus trees on bank top are now in danger of falling into creek. Also, parking lot is starting to crumble and fall into creek. Contributing factors include the already protected opposite bank which deflects the water current back to their unprotected bank and the design of the Gutierrez St. bridge directs the water current to the unprotected bank. This bank needs protection.

4. William T. Hogarth, Regional Administrator/Korie Johnson, National Marine Fisheries Service, October 28, 1998

   The project is in the Southern California Evolutionarily Significant Unit for the Steelhead. Concerned about project impacts on the Steelhead.

   EIS/R should include description of project and associated construction activities; list of biological resources and federally listed species in project area; a description of the adverse impacts on the steelhead; and mitigation measures to minimize effects.

5. The Kelly Family, October 30, 1998

   Against concreting any part of Mission Creek.

   Loss of wildlife habitat unacceptable.

   Provide wetland restoration.

6. Samuel and Connie Marquez, November 2, 1998

   No more vertical concrete walls.

   A natural vegetated slope is preferable.

7. Don Warren, November 3, 1998

   The carrying capacity of the creek itself is not the problem; the problem is the capacity of the bridges. He's concerned this will not be taken into account.

8. Lessie Nixon, President, League of Women Voters of Santa Barbara, November 3, 1998

   Supported Consensus Agreement and state that it should serve as the baseline for project.

   Support efforts to improve water quality, including creating open, natural channels and eliminating concrete.

Support Committee for Santa Barbara report on ocean pollution resolution and, as a result, will have to do even better than the Consensus agreement.

9. JoAnn Lewis, November 5, 1998

Supportive of Committee for Santa Barbara approach; against concrete sides.

10. Josiah F. Jenkins, Jedlicka's Saddlery, November 5, 1998

Major concerns are:

- Bridge capacity – house at 625 Bath lost to 1995 floods; flooding at business at 2605 De la Vina; ongoing Amtrak depot problems.
- Not enough stream capacity
- Losses to property owners and public from flood damage.

Solutions:

- Keep existing concrete channel above Carrillo St.
- Look at diverting excess flows to Arroyo Burro Creek
- Add a second channel between Gutierrez Street and the ocean to handle high flows
- Concrete line below Carrillo Street with steep banks and smooth bottom
- Look at increasing stream capacity from upper De la Vina to ocean
- Look at solutions even if not environmentally friendly

11. Brian Trautwein, Environmental Defense Center, November 8, 1998

Project description is inconsistent with and more environmentally damaging than Consensus Group recommendation. It included sloped, stabilized & vegetated banks below U.S. 101. Present project was a secondary alternative. Recognize need for vertical walls at some bridges only.

Vertical walls, when necessary, must be rough sandstone with planting pockets, ledges, overhangs, pockets and other irregularities for habitat and visual impact mitigation.

Consensus Group project based on 3210 cfs, now recognized as 18-year storm. However, the group agreed to 3210 cfs, not necessarily 25-year storm protection. Larger project reduces feasibility of using sloped banks. The Consensus Group project, as described, should be the preferred project. The presently preferred project should just be an alternative to maintain good faith with the group and the community.

Impact discussion needs to include:

- Wider channel will reduce area available for riparian buffer and passive recreation along creek.
- Wider channel will make project more expensive.

- Smaller buffer will be less conducive to riparian revegetation, less effective at filtering pollutants from adjacent urban environment and less effective at buffering habitat from night lighting and other human disturbances.
- Need to look at setbacks for future development on creek.
- Analyze enlarging the buffer to reduce habitat and flood impacts.
- Wider channel could increase solar radiation of water resulting in water quality and decrease the ability to shade creek bottom resulting in thermal, odor and water pollution.
- Reduction in flooding could have impacts on riparian habitat.
- Impacts on biological resources including steelhead and other endangered species need to be analyzed.
- Mitigation by habitat restoration should be analyzed, including removal or modification of existing concrete bottoms and sides in other areas of the creek and modification of debris basins to remove barriers to steelhead migration.
- Stream geomorphology changes will impact hydrology and affect formation of pools and riffles. Also, look at sedimentation, particularly near mouth of creek.
- Cumulative impacts of existing, planned and proposed development near creek, including floodplain development and retaining walls (i.e., Harborview Inn).
- Water quality impacts.
- Aesthetic impacts.
- Channel safety with vertical walls.
- Maintenance impacts. Future maintenance regime must be described.
- Policy consistency analysis required.

Includes potential funding sources.

12. Catherine McCammon, Citizens Planning Association of Santa Barbara County, November 10, 1998

Support the results of the Consensus Agreement.

Restoration of Mission Creek, in terms of flood control, wetland and riparian restoration, water quality improvements, visual/aesthetics and socio-economics, all very important.

Alternatives need to include comprehensive approaches including not just flood control, but wetland and riparian restoration. Should also include discussion of improving and modifying debris basins and the removal of existing concrete bottoms. Each alternative should be clearly described, including differences with Consensus Group recommendations.

Impacts analyzed should include:

- Water quality, not just creek and estuary, but impacts on ocean as well. Include pollution and contamination.
- Policy inconsistencies, including the Vision, to be spelled out. Example: vertical concrete walls below U.S. 101 will have negative aesthetic impact & are contrary to City and Vision policies.

- Loss of vegetation, number & type of trees, loss of riparian habitat & effects on species in Mission creek.
- Visual resources impacts
- Safety and aesthetics impacts resulting from vertical walls, including fencing. Also, impacts of fencing on wildlife.
- Impacts of a wider channel. Does this result in smaller buffers?
- Impacts on existing neighborhoods, including loss of moderate and low cost housing and historic structures.
- Impact on Structure of Merit and archaeological resources.
- Impact on livability and character of neighborhood.

13. Keith Zandona, Santa Barbara Chapter Chair, Surfrider Foundation, November 11, 1998

Cemented concrete walls and bottoms of project will destroy the health of the riparian habitat.

The aesthetics will be completely destroyed.

Water pollution will be worse.

EIS/R needs to assess the loss of buildings, visual and aesthetics and water quality.

14. Forest B. Wilde, November 12, 1998

This Mission Creek section is already almost all paved vertical walls.

This Mission Creek section is dirty and smelly.

Completely paved section of Creek near Micheltorena is more attractive than the disputed section.

Two solutions: the Army Corps way (inexpensive & quick); or buy up land and make it attractive, similar to San Luis Obispo.

Something needs to be done soon.

15. Erik and Alex Funke, November 12, 1998

Their section of creek along Kimberley Avenue has a shady overstory (including skyline trees), a healthy vegetative understory, diverse habitat (including birds) and healthy groundwater recharge. A concrete ditch will result in its loss.

The concrete channel will result in significant visual/aesthetic impacts, no matter how dressed up.

Consider the goals and policies of the City General Plan.

Foolish to spend a lot of money so every 25 years merchants and householders won't have minor flooding impacts. This is governmental waste.

16. A Frequent Tourist, undated (postmark, November 12, 1998)

Fix creek by starting at ocean and working up the creek. Clean up creek instead of maintaining parks.

17. Doug and Elizabeth Dennison (w/magazine articles), November 13, 1998

Owns property on Mission Creek (416 W. Islay) that was severely eroded during 1/95 floods.

Referenced several issues of "Erosion control," the Official Journal of the International Erosion Control Association, published in Santa Barbara. Several articles show the use of environmental friendly erosion and flood control projects, including:

- Use of native vegetation and "soft armor" systems in several projects, including removal of concrete channels.
- Combination wetland restoration, stream bank stabilization and flood control projects across country.
- How one city did flood control and renewal using 100% local funds.

The main point is that there are many options to doing standard concrete walls.

Interested in no more concrete walls. Any solution must be predominantly natural and include the restoration of wetlands and fish habitat. Also, support removal of existing concrete.

City should hire appropriate experts to design a custom solution.

18. Sharyn Main, South Coast Watershed Alliance, November 13, 1998

Project should incorporate wetlands enhancement, creation and restoration to mitigate impacts improve watershed water filtration capabilities and enhance visual and biological resources. A thorough analysis of these issues should be in EIS/R.

Supports elimination of concrete lining in creeks and the planting of native plants along banks.

Very concerned about use of concrete vertical walls south of U.S. 101.

Project should include an increased riparian buffer from top of bank outwards.

Should investigate potential funding sources to augment project's environmental enhancements, including additional creek and wetland restoration, purchase of property to allow sloped banks and larger setbacks for existing and future development.

19. *Wanda Michalenko, Urban Creeks Council, November 14, 1998

Existing concrete channelization contributes to water pollution on Mission Creek and should be removed.

Supports proposal by the Committee for Santa Barbara to recreate wetlands linking Mission Creek and Laguna Channel. This alternative should be included in the EIS/EIR.

20. Antonio R. Romasanta, November 17, 1998

Concerned about existing water quality worsened by sand closure at mouth. Natural flushing by tides is required. Need to increase channel capacity to fix, while keeping lagoon as narrow as possible.

60 foot width is unacceptable. Support width of 40 to 45 feet.

Quotes 1994 USFWS report that there are no sensitive fresh water species known in the area. Questions whether the Brown pelican should still be considered as endangered and protected as part of project.

Reducing threat of flooding and increasing health and safety of residents and visitors most important goal, while being attractive.

21. *Maurie McGuire, Planning Commissioner, November 18, 1998

She asks for the following areas of emphasis in the EIS/EIR:

- Natural values – Recognition that flooding and flow are not the only issues relative to Mission Creek; natural and habitat values are important and must be considered.
- Mission Creek Consensus Group Recommendation – Include analysis of their primary recommendation.
- Enhancement Alternative – Include environmentally superior alternative that includes a more natural restoration and enhancement of creek (see PC minutes).
- Existing Policy – Analysis of project for consistency with existing policies including Conservation Element, LCP, Vision and others.
- Cost:Benefit Analysis – Must be thorough and long term and include factors for maintenance, prevention of sedimentation and pollution, and natural and recreational values. Also, recognition of creek as part of an ecosystem that can mitigate East Beach bacteria counts through creating natural filters. Should also include the need for regular monitoring and cleanup of creeks including stringent enforcement of violations and the establishment of buffer zones.
- Other considerations include creek bank erosion and lack of vegetation that limits filtering ability; illegal or irrational uses close to creeks resulting in animals, yard waste, garbage; illegal dumping and debris that clog flows.

22. *Richard Frickmann, November 18, 1998

The project should be comprehensive and include flood control, water quality enhancement, habitat reclamation and recreation and education.

Seek additional funding from sources such as: Federal Clean Water Act, Calif. Dept. of Water Resources, CREF, Land Trust, Parks and Recreation, Transportation & educational sources.

Any overflow channel should be above ground and be used as foot and bike path in the dry season.

Remove existing concrete channel and fences along public right of way.

Provide exit points from creek bottom for safety and creek clean up purposes.

Provide natural or artificial pools (some with overhangs) for habitat.

Where feasible, have street runoff flow through vegetative biofilter before entering the creek.

Restore the historic wetland at the mouths of Mission Creek and Laguna Channel east of Stearns Wharf.

Provide footpaths and educational signs along creeks and over the wetlands.

Have the Chamber of Commerce advertise our creeks and wetlands as an attraction of Santa Barbara.

Encourage creekside businesses to face the creek, thereby giving them a vested interest in its health.

23. *Laura Rasmussen, President, Allied Neighborhoods Association, November 19, 1998

Heavy rains and potential overflow problems occur no more than 10 days a year. The greater problem is nearly continual, year-round discharge of polluted creek water.

Allied is strongly committed to the reduction of polluted water discharge into the ocean waters off Santa Barbara.

Modify the proposal as follows:

- Combine flood control and pollution reduction with wetland purification in a joint estuary of Mission Creek & Laguna Channel.
- Support Committee for Santa Barbara report.

24. *Eddie Harris, November 19, 1998

City has not taken serious steps to purchase buildings and properties in the flood plain. In fact, more development is being encouraged in these areas.

Due to a lack of awareness and regard for natural creek and watershed systems, water quality has significantly declined. Healthy beaches are important to the residents of Santa Barbara.

There are limits to how much development and tourism Santa Barbara can support. One indicator of reaching those limits is the recurring flooding. Others are basic health and safety and quality of life indicators.

Recommend changes to the project to include non point source pollution and to include the Laguna watershed and Sycamore Creek. The City should immediately take measures, with or without the Corps to restore creeks and watersheds.

Solutions:

- Design and adopt methodologies for: sloped or terraced natural, vegetated banks w/native plantings & shaded, rock lined creek bottoms; establish buffer zones alongside creeks; removal of fill from selected sites for use as restored wetlands and storm water receptors; reconfigure of storm drains and infrastructure to return low flow runoff from the City hardscape to restored wetlands; link up creeks & storm runoff to the ocean across vegetative biofilters that purify naturally & provide for safe release of high flow waters.
- Remove all concrete from Mission Creek.
- Acquire properties adjacent to creek and in flood plain across Waterfront to implement the above.
- As new permit applications come up, enlarge wetland presence through mitigation.

The natural creek system should be restored and the Waterfront should be returned to wetlands, through purchase of both developed and undeveloped properties and restoration.

25. *Steve Dunn, S.B. Trappers, November 20, 1998

Submitted on behalf of the Santa Barbara area commercial fishermen.

Corps must take into account the World Ocean Conference's adoption of an integrated management policy for recreating and protecting all of our ocean dependent environmental elements.

Assembly Bill 1241 (1998) requires projects in the State to enhance and protect critical fish habitat.

Proposal outlines a series of channels (or pipes where necessary) to direct first flush runoff into a biofilter watershed remediation project from Mission Creek to Andree Clark Bird Refuge.

System would permit control of the connecting water flow. System would accommodate injection of tertiary treated water for flushing of point and non-point source pollution.

Maps are included to show both historic wetland and a conceptual linkage system.

26. *Kim Kimbell, Co-Chairman, Committee for Santa Barbara, November 20, 1998

Committee for Santa Barbara submitted "Waterfront Wetlands/Lower Mission Creek Flood Management Project" proposal. Suggest that proposal be considered either as mitigation proposal or an extension to the project. Address re-creation of historic Laguna wetland for water quality treatment and structural channel design modifications. Proposal includes the following points:

Re-creation of a Waterfront Wetland:

- Problems of flood control and impaired water quality must be addressed in a single project because they are interrelated.
- EIS/EIR must address water quality because creek alteration may cause increased interception of degraded ground water with subsequent discharge to the Harbor.
- Community identity, economy and public health dependent upon our coastal environment.
- Visioning process called for more open space in Waterfront. Possible restoration of Laguna Channel and acquisition of additional property in the flood plain would protect viewsheds, reduce congestion and protect the small town quality of the Waterfront Area.
- 1995 Reconnaissance Flood Control Study has an emphasis on natural habitat and wetlands restoration and acknowledges that creek system must be technically and aesthetically effective in this tourist city setting.
- Request that the Corps and City retain an independent engineering firm to assist in developing a "bio-engineered channel/wetlands treatment alternative" prior to preparation of the EIS/EIR. An example of this approach was used by the Corps & Napa County to establish a historic natural flood plain restoration/flood control project and also for the Wildcat Creek project in San Pablo and El Sobrante in East San Francisco Bay.
- To restore wetlands as mitigation to habitat loss caused by project, consider use of the remains of a large wetland area adjacent to Mission Creek, including the outlet of the historic Laguna Channel and its link to the mouth of Mission Creek.
- Restoration of these wetlands would involve diversion of first flush storm water and floodwater to the Laguna Channel system.
- Areas of the old Laguna Channel system could be restored by being uncovered, linked by channels and planted with vegetation to purify, beautify and assist in flood control.
- To provide fresh water outside the rainy season and avoid creating a tidal marsh (to protect the Goby), use treated wastewater piped from El Estero Wastewater Plant. This would maintain a water source for in-stream aquatic life and purify pollutants entering the creek bed.
- Undeveloped public and private property would probably need to be used. Some acreage would probably need to be acquired or donated.

- New natural wetland habitat would provide place for creek walkways, cafes and restaurants, educational opportunities and tourist attraction.
- Commercial fishermen would support use of a portion of land set aside for their future use because restoration of wetlands would assist in the improvement of commercial fisheries.

Structural Channel Design Alternatives:

- Corps should purchase selected properties and relocate users to allow for a widened natural channel with sloping, earthen banks. The community would be willing to finance additional costs separately to make sure project meets cost-benefit ratio.
- Channel vegetation should include woody riparian species, not just grasses.
- Existing cultural values of native sandstone walls must be retained and where new vertical walls are proposed in the vicinity of such walls, they must look like the historic walls.
- Vertical walls of smooth concrete and cyclone fencing are not acceptable.
- Where vertical walls are necessary, they should look like sandstone block.
- Where near vertical walls are required, use planted live concrete crib walls, planted and terraced walls, planted concrete bin-walls (evergreen walls) or planted gabions (least preferred).
- On properties where there is no development in the floodplain, new development must be discouraged or must mitigate to augment and protect existing wetland and creek resources.
- New construction in wetland or creek locations should follow a design standard set by the San Luis Obispo and Ashland models.
- Creekfront properties should not be treated as back alleys or sewers. Buildings should be oriented to creeks. While a larger issue than the project, this should be addressed in the EIS/EIR.

Alternative Project - The following alternative should be considered in the EIS/EIR:

- A small wetland (4 – 6 acres) should be re-created around lower Laguna Channel. Initially, this could include an area behind the Chase Palm Park expansion, the present and future fisherman's area and the cement yard to the west (?) of the carousel. Expansion could occur through purchase of UPRR property by the City and possible donation of property by Mr. Wright near his hotel project.
- Wetland would be supplemented with water during dry periods with use of secondary or tertiary treated water from El Estero Wastewater Treatment Plant.
- During flood flows, a diversion from Mission Creek to the re-created wetland in the Laguna Channel would bring a portion of the flow to be cleansed and then to exit at the tidegate to the ocean.
- Mission Creek would also be supplemented during dry periods with use of secondary or tertiary treated water from El Estero Wastewater Treatment Plant which would occur near U.S. 101 and be diverted to the wetland before release at Laguna Channel.
- Tidal flooding should be restored during summer months, possibly by converting tide gate into a "tide/slide gate" that would be fully open in summer with tidal inflow

regulated by the slide gate. System would have tidal action in the summer and freshwater action in the winter, a process known as "shocking." This would allow the system to operate similarly to many historic Southern California tidal estuaries.

27. *Mark Capelli, California Coastal Commission, November 20, 1998

Potential significant impacts on Coastal Zone resources:

- Wetland habitats
- Water Resources, including hydrologic function from both biological and water supply perspective and changes to sediment transport resulting from concrete walls
- Effect on endangered species including tidewater goby, southern Steelhead, Snowy plover and Least tern

Consistency with Plans and Policies, particularly Coastal Act and LCP, with particular issues of vertical concrete walls in estuary.

Consider alternatives included in Spectra Report of 1987 (89?)

Use "Commission's Statewide Interpretive Guidelines for Wetlands and Other Wet Environmentally Sensitive Habitats (1981)

Must consider effect of portion of project outside the Coastal Zone on coastal resources.

Suggests that watershed dynamics are more like those of an alluvial fan than of a typical river channel and we should design and plan accordingly.

28. *Antero Rivasplata, Chief, State Clearinghouse, November 23, 1998

No comments received from any State agencies during the Scoping Period.

29. Steve Hoegerman, December 7, 1998

Say "no" to the Army Corps. Do not pave Mission Creek.

LOWER MISSION CREEK FLOOD CONTROL PROJECT

EIS/EIR SCOPING COMMENTS

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22. Richard Frickmann, November 18, 1998
23. Laura Rasmussen, President, Allied Neighborhoods Association, November 19, 1998
24. Eddie Harris, November 19, 1998
25. Steve Dunn, S.B. Trappers, November 20, 1998
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APPENDIX - I -1

CORRESPONDENCE RELATED TO PUBLIC HEARING

LOWER MISSION CREEK FLOOD CONTROL PROJECT
SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

December 15, 1999

REPLY TO
ATTENTION OF

Office of the Chief
Environmental Resources Branch

Mr. Richard E. Sanderson, Director
Office of Federal Activities, NEPA Compliance Division
Environmental Protection Agency (EPA)
EIS Filing Section (Attn: Ms. Pearl Young)
Ariel Rios Building (South Oval Lobby)
Mail Code 2252-A, Room 7241
1200 Pennsylvania Avenue, NW
Washington, D.C. 200044

Dear Mr. Sanderson:

Enclosed for filing are five copies of the Draft Feasibility Report and Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for Lower Mission Creek Flood Control Project, Santa Barbara, Santa Barbara County, California, Clearing House Publication # is 98101061. Please publish the Notice of Availability (NOA) in the Federal Register. Distribution of copies of the Draft EIS/EIR has been completed. Should you have any questions regarding the project, please contact Ms. Joy Jaiswal, Environmental Coordinator, at (213) 452-3871 or Dr. John Moeur, Project Biologist at (213) 452-3874. Mr. Ed Demesa, Study Manager can be reached at (213) 452-3796.

Sincerely,

Robert E. Koplin, P.E
Chief, Planning Division

Enclosure

[Federal Register: December 23, 1999 (Volume 64, Number 246)]
[**Notices**]
[Page 72078-72079]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr23de99-54]

Pearl Young (202) 564-7167
W

ENVIRONMENTAL PROTECTION AGENCY

[ER-FRL-6249-3]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564-7167 OR www.epa.gov/oeca/ofa. Weekly receipt of Environmental Impact Statements Filed December 13, 1999 Through December 17, 1999 Pursuant to 40 CFR 1506.9.

EIS No. 990476, Draft EIS, AFS, AZ, Williams Ski Area Expansion on Bill Williams Mountain, Implementation, Special-Use-Permit, Kaibab National Forest, Williams Ranger District, Coconino County, AZ, Due: February 22, 2000, Contact: Teri Cleeland (520) 635-5620.
EIS No. 990477, Final EIS, AFS, UT, Snowbird Ski and Summer Resort Master Development Plan, Implementation, Special-Use-Permit and COE Section 404 Permit, Salt Lake and Lake Counties, Salt Lake City, UT, Due: January 21, 2000, Contact: Rob Cruz (801) 733-2685.
EIS No. 990478, Draft EIS, COE, AZ, Tres Rios Feasibility Study Project, Ecosystem Restoration, Located at the Salt, Gila and Agua Fria Rivers, City of Phoenix, Maricopa County, AZ, Due: February 07, 2000, Contact: Alex Watt (213) 452-3860.
EIS No. 990479, Draft EIS, COE, CA, Lower Mission Creek Flood Control Project, Proposed Plan for Flood Control, City of **Santa Barbara**, **Santa Barbara** County, CA, Due: February 07, 2000, Contact: Joy Jaiswal (213) 452-3871.
EIS No. 990480, Final EIS, FHW, CO, Southeast Corridor Multi-Modal Project, To Improve Travel between Central and Southeast Corridors, Light Rail Transit (LRT), Colorado Metropolitan Area, Denver, CO, Due: January 21, 2000, Contact: Vince Barone (303) 969-6730.
EIS No. 990481, Final EIS, NRC, SC, Generic EIS--License Renewal of Nuclear Plants for the Oconee Nuclear Station, Units 1, 2 and 3, Implementation, Oconee County, SC, Due: January 21, 2000, Contact: James H. Wilson (301) 415-1108.
EIS No. 990482, Final EIS, NPS, DC, The White House and President's Park Comprehensive Design Plan, Implementation of a Framework for Future Management, Washington, DC, Due: January 21, 2000, Contact: James I. McDaniel (202) 619-6344.
EIS No. 990483, Draft EIS, NRS, Programmatic EIS--Emergency Watershed Protection Program, Improvements and Expansion, To Preserve Life and Property Threatened by Disaster-Caused Erosion and Flooding, US 50 States and Territories except Coastal Area, Due: February 15, 2000, Contact: Donald Gohmert (202) 720-3534.
EIS No. 990484, Final EIS, USA, NJ, Military Ocean Terminal (MOTBY), Disposal and Reuse, Implementation, in the City of Bayonne, Bergen, Essex and Hudson Counties, NJ, Due: January 21, 2000, Contact: Theresa Persick-Arnold (703) 697-0216.

[[Page 72079]]

EIS No. 990485, Final EIS, USN, CA, Marine Corp Air Station (MCAS) Tustin Disposal and Reuse Plan, Cities of Tustin and Irvine, Orange County, CA, Due: January 21, 2000, Contact: Dana Ogdon (714) 573-3116.

EIS No. 990486, Draft EIS, FHW, OH, Lancaster Bypass (FAI-US 22/US 33-9.59/9.95) Construction, Funding, Greenfield, Hocking, Berne and Pleasant Townships, Fairfield County, OH, Due: February 11, 2000, Contact: Leonard E. Brown (614) 280-6869.
EIS No. 990487, Final EIS, FTA, MD, Metrorail Extension--Addison Road Station to the Largo Town Center, Transportation Improvements, Prince George's County, MD, Due: January 31, 2000, Contact: Gail McFadden-Roberts (215) 656-7100.

Amended **Notices**

EIS No. 990461, Draft EIS, COE, NY, Fire Island Inlet to Montauk Point, Implementation, Reach 1--Fire Island Inlet to Moriches Inlet Interim Storm Damage Protection Project, Long Island, NY, Due: January 31, 2000, Contact: Pete Weppler (212) 264-0195. Published (FR 12-17-99) Correction to Comment Period from 2-7-2000 to 1-31-2000.
EIS No. 990462, Draft EIS, FHW, TN, Interstate 40 (I-40) Transportation Improvements from I-75 to Cherry Street in Knoxville, Funding, NPDES and COE Section 404 Permits, Knox County, TN, Due: January 31, 2000, Contact: Charles Boyd (615) 781-5770. Published (FR 12-17-99) Correction to Comment Period from 2-7-2000 to 1-31-2000.
EIS No. 990463, Draft EIS, BOP, SC, South Carolina--Federal Correctional Institution, Construct and Operate, Possible Sites: Andrew, Bennettsville, Oliver and Salters, SC, Due: January 31, 2000, Contact: David J. Dorworth (202) 514-6470. Published (FR 12-17-99) Correction to Comment Period from 2-7-2000 to 1-31-2000.
EIS No. 990465, Final EIS, COE, AR, Grand Prairie Area Demonstration Project, Implementation, Water Conservation, Groundwater Management and Irrigation Water Supply, Prairie, Arkansas, Monroe and Lonoke Counties, AR, Due: January 17, 2000, Contact: Edward P. Lambert (901) 544-0707. Published (FR 12-17-99) Correction to Comment Period from 1-24-2000 to 1-31-2000.
EIS No. 990467, Final EIS, FHW, IN, US 231 Transportation Project, New Construction from CR-200 N to CR-1150 S, Funding, Right-of-Way Permit and COE Section 404 Permit, Spencer and Dubois Counties, IN, Due: January 17, 2000, Contact: John R. Baxter (317) 226-7445. Published (FR 12-17-99) Correction to Comment Period from 1-24-2000 to 1-17-2000.
EIS No. 990468, Regulatory Final EIS, OSM, Valid Existing Rights--Proposed Revisions to the Permanent Program Regulations Implementing Section 522(E) of the Surface Mining Control and Reclamation Act of 1977 and Proposed Rulemaking Clarifying the Applicability of Section 522(E) to Subsidence from Underground Mining, Due: January 17, 2000, Contact: Andy F. DeVito (202) 208-2701. Published (FR 12-17-99) Correction to Comment Period from 1-24-2000 to 1-17-2000.
EIS No. 990469, Draft EIS, COE, TX, Programmatic EIS--Upper Trinity River Basin Feasibility Study, To Provide Flood Damage Reduction, Environmental Restoration, Water Quality Improvement and Recreational Enhancement, Trinity River, Dallas-Fort Worth Metroplex, Dallas, Denton and Tarrant Counties, TX, Due: February 7, 2000, Contact: Gene T. Rice, Jr (817) 978-2110. Published (FR 12-17-99) Correction to Telephone Number.
EIS No. 990470, Draft EIS, TVA, TN, Addition of Electric Generation Peaking and Baseload Capacity at Greenfield Sites, Construction and Operation of Combustion Turbines (CTs), Haywood County, TN, Due: January 31, 2000, Contact: Gregory L. Askew, P.E. (865) 632-6418. Published (FR 12-23-99) Correction to Comment Period from 2-7-2000 to 1-31-2000.
EIS No. 990471, Final EIS, FTA, WA, Everett-to-Seattle Communter Rail Project, Construction and Operation, To Link the Cities of Everett, Mukilteo, Edmonds, Shoreline, and the Seattle Waterfront, U.S. Coast Guard, COE Section 10 and 404 Permits, Snohomish County, WA, Due: January 17, 2000, Contact: David Phillip Beal (206) 684-1883. Published (FR 12-17-99) Correction to Comment Period from 1-24-2000 to 1-17-2000.
EIS No. 990472, Final EIS, COE, NJ, Barnegat Inlet to Little Egg Inlet

Hurricane and Storm Damage Protection, Implementation, Long Beach Island, Ocean County, NJ, Due: January 17, 2000, Contact: Randy Piersol (215) 656-6577. Published (FR 12-17-99) Correction to Comment Period from 1-24-2000 to 1-17-2000.
EIS No. 990474, Draft Supplement, NOA, Fishery Management Plan (FMP), Regulatory Impact Review, Snapper-Grouper Complex, South Atlantic Region, Due: January 31, 2000, Contact: William T. Hogarth (202) 482-5916. Published (FR 12-23-99) Correction to Comment Period from 2-7-2000 to 1-31-2000.
EIS No. 990475, Draft EIS, FHW, NC, Western Wake Freeway, Transportation Improvements from NC-55 at NC-1172 (Old Smithfield Road) to NC-55 near NC-1630 (Alston Avenue), Funding and COE 404 Permit, Wake County NC, Due: February 3, 2000, Contact: Nicholas L. Graf, P.E. (919) 856-4350. The Notice for the above DEIS should have appeared in the 12-17-99 Federal Register. The 45-day Comment Period is Calculated from 12-17-99.

Dated: December 20, 1999.
William D. Dickerson,
Director, NEPA Compliance Division, Office of Federal Activities.
[FR Doc. 99-33359 Filed 12-22-99; 8:45 am]
BILLING CODE 6560-50-U

measures and proposed mitigation plans for wetlands, as well as a more thorough cumulative impacts evaluation for wetlands and air quality should be included in the final EIS.

ERP No. D–FRC–E03008–00 Rating EC2, Florida Gas Transmission Phase IV Expansion Project (Docket No. CP99–94–000), To Deliver Natural Gas to Electric Generator, FL and MS.

Summary: EPA expressed environmental concern regarding the impact of 297 acres of wetlands including 100 acres of forested wetlands, 72 perennial waterways and 62 residences within 50 ft of the construction ROW, and that the project would induce secondary development impacts. EPA requested additional information on certain alternatives/variations and of Environmental Justice.

ERP No. D–FTA–C40150–NY Rating EC2, Manhattan East Side Transit Alternatives Study, (MESA), Improve Transit Access Lower Manhattan, Lower East Side, East Midtown, Upper East Side and East Harlem, Major Investment Study, New York, NY.

Summary: EPA expressed environmental concerns regarding the air quality analysis and alternatives. EPA requested that this issue be clarified and be included in the next document.

ERP No. D–NPS–C61010–NJ Rating EC2, Great Egg Harbor National Scenic and Recreation River, Comprehensive Management Plan, Implementation, Atlantic Gloucester, Camden and Cape May Counties, NJ.

Summary: EPA expressed environmental concerns with the CMP recommendations to enhance and protect the River's water quality. The final EIS should include a funding plan, and a detailed plan for periodic evaluation of the implementation and success of the CMP.

ERP No. D–NPS–F39038–00 Rating EC2, Lower Saint Croix National Scenic Riverway Cooperative Management Plan, Implementation, MN and WI.

Summary: EPA expressed concerns regarding potential water quality impacts and the lack of baseline data/indicators. EPA requested that these issues be clarified in the final document.

ERP No. D–USN–C11016–NY Rating EC2, Brooklyn Naval Station Disposal and Reuse, Implementation, King County, NY.

Summary: EPA expressed environmental concerns regarding impacts to the Brooklyn/Queens Aquifer System and historic resources, and requested that additional information be presented in the final EIS to address these issues.

Final EISs

ERP No. F–AFS–K65307–CA Herger-Feinstein Quincy Library Group Forest Recovery Act, Establishing and Conducting a Pilot Project, Lassen, Plumas and Tahoe National Forests, Shasta, Lassen, Tehama, Yuba, Plumas and Battle Counties, CA.

Summary: EPA expressed environmental objections with the designation of Alternative 3 as the "environmentally preferable alternative," given Alternative 5 would provide maximum level of resource protection with the minimum level of new disturbance. EPA suggested that the ROD specify mitigation for the new road construction and provide a map of spotted owl habitat excluded from harvest.

ERP No. F–COE–L90028–WA Programmatic EIS—Puget Sound Confined Disposal Site Study, Implementation, WA.

Summary: No formal comment letter sent to the preparing agency.

ERP No. FS–AFS–L82015–ID St. Joe Noxious Weed Control Project, Implementation, St. Maries River, St. Joe River and Little North Fork Clearwater River, Benewah, Shoshone and Latah Counties, ID.

Summary: No formal comment letter sent to the preparing agency.

ERP No. F1–AFS–L61218–ID Frank Church—River of No Return Wilderness (FC–RONRW), Implementation for the Future Management of Land and Water Resource, Bitterroot, Boise, Nez Perce, Payette and Salmon-Challis National Forests, ID.

Summary: No formal comment letter was sent the preparing agency.

Dated: December 20, 1999.

William D. Dickerson,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 99–33358 Filed 12–22–99; 8:45 am]

BILLING CODE 6550–50–U

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–6249–3]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564–7167 OR www.epa.gov/oeca/ofa. Weekly receipt of Environmental Impact Statements Filed December 13, 1999 Through December 17, 1999 Pursuant to 40 CFR 1506.9.

EIS No. 990476, Draft EIS, AFS, AZ, Williams Ski Area Expansion on Bill Williams Mountain, Implementation, Special-Use-Permit, Kaibab National Forest, Williams Ranger District, Coconino County, AZ, Due: February 22, 2000, Contact: Teri Cleeland (520) 635–5620.

EIS No. 990477, Final EIS, AFS, UT, Snowbird Ski and Summer Resort Master Development Plan, Implementation, Special-Use-Permit and COE Section 404 Permit, Salt Lake and Lake Counties, Salt Lake City, UT, Due: January 21, 2000, Contact: Rob Cruz (801) 733–2685.

EIS No. 990478, Draft EIS, COE, AZ, Tres Rios Feasibility Study Project, Ecosystem Restoration, Located at the Salt, Gila and Agua Fria Rivers, City of Phoenix, Maricopa County, AZ, Due: February 07, 2000, Contact: Alex Watt (213) 452–3860.

EIS No. 990479, Draft EIS, COE, CA, Lower Mission Creek Flood Control Project, Proposed Plan for Flood Control, City of Santa Barbara, Santa Barbara County, CA, Due: February 07, 2000, Contact: Joy Jaiswal (213) 452–3871.

EIS No. 990480, Final EIS, FHW, CO, Southeast Corridor Multi-Modal Project, To Improve Travel between Central and Southeast Corridors, Light Rail Transit (LRT), Colorado Metropolitan Area, Denver, CO, Due: January 21, 2000, Contact: Vince Barone (303) 969–6730.

EIS No. 990481, Final EIS, NRC, SC, Generic EIS—License Renewal of Nuclear Plants for the Oconee Nuclear Station, Units 1, 2 and 3, Implementation, Oconee County, SC, Due: January 21, 2000, Contact: James H. Wilson (301) 415–1108.

EIS No. 990482, Final EIS, NPS, DC, The White House and President's Park Comprehensive Design Plan, Implementation of a Framework for Future Management, Washington, DC, Due: January 21, 2000, Contact: James I. McDaniel (202) 619–6344.

EIS No. 990483, Draft EIS, NRS, Programmatic EIS—Emergency Watershed Protection Program, Improvements and Expansion, To Preserve Life and Property Threatened by Disaster-Caused Erosion and Flooding, US 50 States and Territories except Coastal Area, Due: February 15, 2000, Contact: Donald Gohmert (202) 720–3534.

EIS No. 990484, Final EIS, USA, NJ, Military Ocean Terminal (MOTBY), Disposal and Reuse, Implementation, in the City of Bayonne, Bergen, Essex and Hudson Counties, NJ, Due: January 21, 2000, Contact: Theresa Persick-Arnold (703) 697–0216.

US Army Corps of Engineers
Los Angeles District

Notice of Public Review and Public Meeting
Lower Mission Creek
Flood Control Feasibility Study

19 Jan 2000, Wednesday 6:30 p.m. at City Hall

Interested Parties:

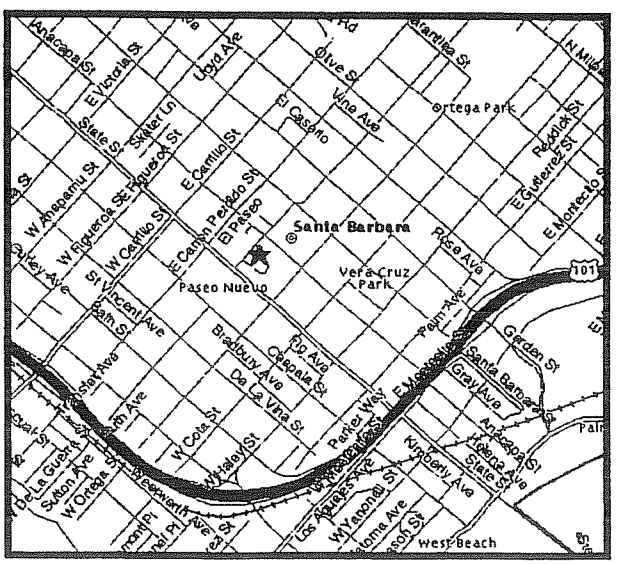
This is an open invitation to all interested parties to provide views and comments on the U.S. Army Corps of Engineers', the Santa Barbara County Flood Control District's, and the City of Santa Barbara's plan for flood control for the lower Mission Creek in Santa Barbara, California. A public meeting on the study will be held on Jan 19, 2000 at 6:30 p.m. in the Council Chambers at Santa Barbara City Hall located at De la Guerra Plaza.

At the public meeting, the results of the draft feasibility study will be presented as well as the proposed plan, which include creek improvements to increase its conveyance capacity and environmental features to improve the riparian community along lower Mission Creek. The Draft Environmental Impact Statement (EIS) and the Draft Environmental Impact Report (EIR) for this plan will also be presented. The draft Feasibility Report, EIS and EIR, and Technical Appendices are available for public review at the Planning Division, 630 Garden Street between 8:30 a.m. to noon and 1:00 p.m. to 4:30 p.m. and at the public Library at 40 E. Anapamu Street during hours of operation. A summary of the study results and a general description of the Recommended Plan and Environmental Impacts are included in this announcement.

The purpose of this public meeting is to solicit public comments and concerns with respect to the draft feasibility study findings and the proposed Recommended Plan including the proposed future maintenance. All comments and information received will be carefully reviewed and fully considered in reaching the final feasibility study conclusions and recommendations. Comments regarding future maintenance will be considered in the Regulatory permitting process. Therefore, we urge all interested parties to participate. Anyone wishing to express their views at the meeting will be offered a full opportunity to do so. In addition, written comments may be submitted at the meeting or mailed to the Corps of Engineers at the address below. A record of proceedings will be taken during the meeting and a transcript prepared. All statements, oral or written, will become part of the official record of the study. Appropriate statements or recommendations for change will be incorporated into the final study documents.

The review period for receiving views and comments is 45 days. All written statements should be received by the Corps no later than 10 February 2000. Written comments or further information regarding the lower Mission Creek Feasibility Study or the public meeting, can be addressed to Mr. Ed Demesa, Study Manager, Plan Formulation Branch, U.S. Army Corps of Engineers, P.O. Box 532711, Los Angeles, California, 90053-2325. Mr. Demesa may also be reached by telephone at (213) 452-3796.

We have attempted to send this information to all individuals and organizations that may have an interest in the Lower Mission Creek Flood Control Project. If you know of individuals who may desire to attend and have not been contacted by us, please bring this invitation to their attention.



Directions to Meeting:
From US101 South : Take the Laguna St/Garden St exit. Turn right onto Garden St. Turn left onto E. Gutierrez St. Turn right onto Santa Barbara St. Turn left onto E De la Guerra St. The City Hall will be on the left side between Anacapa St and State St.

City of Santa Barbara
California

NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT – ENV92 0005 AND NOTICE OF PUBLIC HEARING

PROJECT LOCATION: LOWER MISSION CREEK, BETWEEN CANON PERDIDO STREET AND CABRILLO BOULEVARD

PROJECT DESCRIPTION: The EIS/EIR specifically addresses Alternatives 12, 6,8 and 1, the No Action Alternative. These alternatives would increase the channel capacity to 3,400 cubic feet per second (cfs) and would provide a 20-year level of protection. Channel improvements would occur on approximately the last mile of the creek between the Canon Perdido Street Bridge at the upstream end and the Cabrillo Boulevard Bridge near the outlet. Alternative 12, the National Economic Development (NED) and tentatively recommended plan, includes: natural creek bottom; replacement of five bridges, streamlining bedslope, installing a culvert that bypasses the oxbow; stabilizing creek banks by using a combination of short vertical walls and vegetated riprap in most places with vertical walls at bridges and at other constrained locations; and construction of habitat zones and a wetland. Alternative 6 consists of: natural creek bottom; stabilized creek banks with vertical walls and vegetated stepped banks; replacement of seven bridges; streamlining bedslope; construction of habitat zones and a wetland; and the oxbow would be widened to contain higher flows. Alternative 8 consists of: natural creek bottom; stabilization of creek banks with vertical concrete walls; replacement of five bridges; streamlining bedslope; installing a culvert that bypasses the oxbow; and construction of habitat zones and a wetland. Future maintenance is an integral part of the project design for all alternatives identified above, and is included in the project description for the life of the project. Project design incorporates planting of vegetation along upper banks, within vacant remnant land parcels, and construction of a wetland.

A Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) has been prepared for this project and is available for review and comment. The Draft EIS/EIR examines environmental impacts which may be associated with this project. Significant environmental effects identified in the Draft EIS/EIR which are anticipated as a result of the project include impacts related to biological resources, cultural resources, traffic, water quality, air quality and noise. This Draft EIS/EIR has been prepared jointly by the City of Santa Barbara and the Los Angeles District, U.S. Army Corps of Engineers. An underground fuel tank was previously located at 315 Chapala Street, Site # 90042, no Assessor's Parcel Number (former APN 37-245-16, retired by County Assessor after property was purchased by CalTrans for U.S. Highway 101 right-of-way) and had been identified on one of the lists enumerated under Section 65962.5 of the Government Code. This tank has since been removed and soil remediation has been completed as required by applicable federal, state, and local regulations. Property at 324 De la Vina Street (Site ID #151, APN 037-245-14) and at 220 West Gutierrez Street (site ID #57, APN 37-202-06) have been identified as locations which require site remediation on one of the lists enumerated under Section 65962.5 of the Government Code. More detail on these two sites is provided in the Draft EIS/EIR.

AN IMPORTANT NOTICE
CONCERNING YOUR NEIGHBO[illegible] GOOD

CITY OF SANTA BARBARA
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
POST OFFICE BOX 1990
SANTA BARBARA, CA 93102-1990

The City of Santa Barbara encourages the public to provide written comment on this and other projects. The Draft EIS/EIR is available for review at the Planning Division, 630 Garden Street between 8:30 a.m. to noon and 1:00 p.m. to 4:30 p.m. and at the Public Library at 40 E. Anapamu Street during hours of operation.

The public review period begins on **December 27, 1999**. Comments on the Draft EIS/EIR must be submitted by **February 10, 2000, at 4:30 p.m.**

Please send your comments to:

City of Santa Barbara
Planning Division
Attn: **Jan Hubbell, Project Planner**
P.O. Box 1990
Santa Barbara, CA 93102-1990

A hearing to take public comments on this document will be held before the Planning Commission on **January 19, 2000** at 6:30 p.m. in the Council Chambers at City Hall. If you have any questions please contact **Jan Hubbell, Project Planner**, at (805) 564-5470 between 8:30 a.m. to noon and 1:00 p.m. to 4:30 p.m.

After public review of the EIS/EIR, the City of Santa Barbara and the U.S. Army Corps of Engineers will respond to comments and prepare a Final EIS/EIR. The Planning Commission will then certify the Final S/EIR. A notice of this hearing will be provided.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
GOVERNOR

Loretta Lynch
DIRECTOR

ACKNOWLEDGEMENT OF RECEIPT

DATE: December 29, 1999

TO: JANICE M. HUBBELL
CITY OF SANTA BARBARA, PLANNING DIVISION
P.O.BOX 1990
SANTA BARBARA, CA 93102-1990

RE: LOWER MISSION CREEK FLOOD CONTROL PROJECT
SCH#: 98101061

This is to acknowledge that the State Clearinghouse has received your environmental document for state review. The review period assigned by the State Clearinghouse is:

Review Start Date: December 28, 1999
Review End Date: February 10, 2000

We have distributed your document to the following agencies and departments:

California Coastal Commission
California Highway Patrol
Caltrans, District 5
Department of Boating and Waterways
Department of Fish and Game, Region 5
Department of Parks and Recreation
Department of Water Resources
Native American Heritage Commission
Office of Historic Preservation
Public Utilities Commission
Regional Water Quality Control Board, Region 3
Resources Agency
State Lands Commission

The State Clearinghouse will provide a closing letter with any state agency comments to your attention on the date following the close of the review period.

Thank you for your participation in the State Clearinghouse review process.

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
916-445-0613 FAX 916-323-3018 WWW.OPR.CA.GOV/CLEARINGHOUSE.HTML

CITY OF SANTA BARBARA

NOTICE OF PUBLIC HEARING OF THE PLANNING COMMISSION
JANUARY 19, 2000
6:30 P.M.
CITY HALL - DE LA GUERRA PLAZA
CITY COUNCIL CHAMBERS

NOTICE OF AVAILABILITY OF DRAFT - ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT – ENV92 0005 AND NOTICE OF PUBLIC HEARING

PROJECT LOCATION: LOWER MISSION CREEK, BETWEEN CANON PERDIDO STREET AND CABRILLO BOULEVARD

PROJECT DESCRIPTION: The EIS/EIR specifically addresses Alternatives 12, 6, 8, and 1 (the No Action Alternative). These alternatives would increase the channel capacity to 3,400 cubic feet per second (cfs) and would provide a 20-year level of protection. Channel improvements would occur on approximately the last mile of the creek between the Canon Perdido Street Bridge at the upstream end and the Cabrillo Boulevard Bridge near the outlet. Future maintenance is an integral part of the project design for all alternatives identified above, and is included in the project description for the life of the project. Project design incorporates planting of vegetation along upper banks, within vacant remnant land parcels, and construction of a wetland.

A Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) has been prepared for this project and is available for review and comment. The Draft EIS/EIR examines environmental impacts which may be associated with this project. Significant environmental effects identified in the Draft EIS/EIR which are anticipated as a result of the project include impacts related to biological resources, cultural resources, traffic, water quality, air quality and noise. This Draft EIS/EIR has been prepared jointly by the City of Santa Barbara and the Los Angeles District, U.S. Army Corps of Engineers. An underground fuel tank was previously located at 315 Chapala Street, Site # 90042, no Assessor's Parcel Number (former APN 37-245-16, retired by County Assessor after property was purchased by CalTrans for U.S. Highway 101 right-of-way) and had been identified on one of the lists enumerated under Section 65962.5 of the Government Code. This tank has since been removed and soil remediation has been completed as required by applicable federal, state, and local regulations. Properties at 324 De la Vina Street (Site ID #151, APN 037-245-14) and at 220 West Gutierrez Street (Site ID #57, APN 37-202-06) have been identified as locations which require site remediation on one of the lists enumerated under Section 65962.5 of the Government Code. More detail on these two sites is provided in the Draft EIS/EIR.

The City of Santa Barbara encourages the public to provide written comment on this and other projects. The Draft EIS/EIR is available for review at the Planning Division, 630 Garden Street between 8:30 a.m. to noon and 1:00 p.m. to 4:30 p.m. and at the Public Library at 40 E. Anapamu Street during hours of operation.

The public review period began on December 27, 1999. Comments on the Draft EIS/EIR must be submitted by **February 10, 2000 at 4:30 p.m.**

After public review of the EIS/EIR, the City of Santa Barbara and the U.S. Army Corps of Engineers will respond to comments and prepare a Final EIS/EIR. The Planning Commission will then certify the Final EIS/EIR. A notice of this hearing will be provided.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Planning Division at (805) 564-5470. Notification at least 48 hours prior to the meeting will enable the City to make reasonable arrangements.

If you have any questions, wish to know more about this application, or wish to review the document, please contact Jan Hubbell, Project Planner, from 8:30 a.m. to 12:00 noon and 1:00 p.m. to 4:30 p.m., Monday through Friday. in the Community Development Department at 564-5470.

Notice of Preparation

To: All Responsible and Trustee Agencies and Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Statement/Environmental Impact Report

Lead Agencies:

CEQA: City of Santa Barbara
Planning Division
Post Office Box 1990
Santa Barbara, CA 93102

Contact: Janice M. Hubbell., Project Planner

NEPA: Commander,
U.S. Army Corps of Engineers, Los Angeles District
Environmental Design Section, CESPL-PD-RL
P.O. Box 532711
Los Angeles, CA 900 53-2325

Contacts: Ms. Joy Jaiswal, Technical Manager
Mr. Ed Demesa, Study Manager

The City of Santa Barbara will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. The U.S. Army Corps of Engineers will be the Lead Agency for the Environmental Impact Statement (EIS). The EIR and EIS will be prepared as a joint document. We need to know the views of you or your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Responsible and Trustee agencies will need to use the EIR/EIS prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study ([X] is [ ] is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice.

A Scoping Meeting will be held on October 29, 1998 before the Planning Commission and the U.S. Army Corps of Engineers. The meeting will begin at 7:00 PM and will be held in the City Council Chambers, City Hall, De la Guerra Plaza, Santa Barbara.

Please send your response to Janice Hubbell and/or Joy Jaiswal or Ed Demesa at the addresses shown above. We will need the name for a contact person in your agency.

Project Title: Lower Mission Creek Flood Control Project

Project Location: Mission Creek, between Canon Perdido Street and the Pacific Ocean, City of Santa Barbara, County of Santa Barbara

Project Description: Proposal to channelize Mission Creek from Carrillo Street to the Pacific Ocean in order to provide flood protection. See attached Initial Study and Notice of Intent for more detail.

Date September 28, 1998

Signature: Janice M. Hubbell

Project No.: ENV98-0330

Title: Project Planner

APN: Several

Telephone: (805) 564-5470

ZONE: C-2, R-3, R-4, P-R, HRC-1, HRC-2 and S-D-3

Reference: California Administrative Code, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

[J:/jh/mis/miscreek.nop]

REVISED:3-20-91

17 Jan 1999

Jan,

Per Joy, I have sent out copy/ies of the report to the recipients that are hi-lited in the attached list and you'll be distributing the report for the remaining addressees. I'm still looking for the mailing addresses for the following agencies:

Dept of Transportation;
Cal Dept of Housing and Community;
California Dept of Real estate, and
State Reclamation Board.

These would probably go out on Monday (20 Dec).

You should receive 50 copies of the main report, all Fedexed today. Three copies of the appendices will be mailed to you by Rebecca (RBF) on Monday. RBF is printing the appendices and we're printing the main report here at the District.

I'll provide Tom Fayram several copies for his use, not including the copies that you'll mail out to the county agencies that are included in the mailing list.

I'm sending out the main report to the libraries today and the appendices will follow on Monday.

Please give me a call upon receipt.

Thank You,

Ed Demesa
(213) 452-3796

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

REPLY TO
ATTENTION OF:

December 15, 1999

Office of the Chief
Environmental Resources Branch

To Interested Parties:

Enclosed for your review and comment is a copy of the Draft Feasibility Report and Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Lower Mission Creek Flood Control Project, Santa Barbara, Santa Barbara County, California. The study is limited to the final 1.2 miles of the creek, between Canon Perdido Street and Cabrillo Boulevard This study does not extend to lagoon. The proposed project would provide 3400 cubic feet per second (cfs) of capacity and approximately a 20-year level of flood protection.

The Environmental Impact Statement/Environmental Impact Report (EIS/EIR) evaluates four feasible alternatives for the environmental evaluation. They are Alternative 12, 6, 8 and No Action Alternatives (see details in the EIS/EIR Section 3). Alternative No. 12 is the National Economic Development (NED) and tentatively Recommended Plan. This alternative is also the environmentally superior plan compared to all other alternatives evaluated for the environmental analysis.

Alternative 12 consists of constructing a soft bottom creek, stabilizing the creek banks with a combination of short vertical walls along the lower banks and vegetated riprap along the upper banks, replacement of five bridges; installation of a bypass culvert, and streamlining the bedslope. This alternative provides an opportunity for construction of a wetland and habitat expansion zones. The habitat expansion zones would provide a dual benefit by expanding riparian habitat along the creek and creating passive park areas for use by area residents. Future maintenance of the constructed channel is essential to retain the form and design capacity of the creek. Impacts related to future maintenance are addressed in this document. Chapters 6 through 19 provide existing conditions and address impacts related to this proposed project. Environmental commitments and mitigation measures are included to avoid/reduce or minimize impacts to natural and cultural resources.

The U.S. Army Corps of Engineers is the Federal lead agency responsible for complying with the National Environmental Policy Act (NEPA). Santa Barbara County Flood Control District (SBCFCD) and the City of Santa Barbara are the local responsible agencies for complying with the California Environmental Quality Act (CEQA). The SBCFCD is a project proponent responsible for the future maintenance of the constructed project. This environmental document is written in compliance with NEPA, CEQA and other applicable environmental laws and regulations.

A public hearing on the Draft Feasibility Report and Draft EIS/EIR is scheduled for January 19, 2000, at 6:30 pm.; in Santa Barbara City Hall, Council Chambers; 730 Anacapa Street, Santa Barbara, California.

Should you have any comments on the proposed project, please respond within forty-five (45) days. The comment period begins December 27, 1999, and extends through February 10, 2000. Please address your comments to:

U.S. Army Corps of Engineers
Los Angeles District
ATTN: Ms. Joy Jaiswal (CESPL-PD-RL)
and
Mr. Ed Demesa (CESPL-PD-WA)
P.O. Box 532711
Los Angeles, California 90053-2325

Comments must be received by February 10, 2000. Please direct your comments to the attention of Ms. Joy Jaiswal of my staff at (213) 452-3871 or FAX (213) 452-4219. If you have questions on the Draft Feasibility Report, please contact Mr. Ed Demesa, (213) 452- 3796. Ms. Janice M. Hubbell, AICP, Project Planner is a point of contact at the City of Santa Barbara. Ms. Hubbell can be reached at (805) 564-5470. Thank you for your review of this document.

Sincerely,

Robert E. Koplin, P.E
Chief, Planning Division

Enclosure

SUMMARY
PUBLIC MEETING (HEARING)
DRAFT EIS/EIR
JANUARY 19, 2000

The U.S. Army Corps of Engineers (Corps), the Santa Barbara County Flood Control District (Flood Control District), and the City of Santa Barbara (City) held a public meeting on Wednesday evening, January 19, 2000, 6:30 PM, to give the public an opportunity to comment orally on the Draft Feasibility Study and Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). The public meeting was held in the Council Chambers at Santa Barbara City Hall located at De la Guerra Plaza.

A verbatim transcript of public meeting proceedings from a videotape was prepared. The following is a categorized compilation of questions, comments, and concerns raised at the public meeting. A brief response of how the comments have been addressed follows each of the topics.

Concerns – Project Alternatives

- Add another plan: extend the box culvert from its current outlet point near the Chapala Street Bridge to the end of Mission Creek. If trees cannot be planted on top of the culvert, substitute other vegetation.
- Increase both habitat and flood protection by buying more land along the corridor.
- Relegating the riparian corridor to two 10-foot strips in the pocket riparian zones with virtually nothing south of Highway 101 is inadequate.
- What are the differences between the channel width alternatives for the Mason Street area? Why is it important?

Concerns – Project Design:

- Proposed acquisition of the property for an expanded habitat zone at the corner of the project at De la Guerra: recommend only using the slope as the expanded habitat zone in order to save the building. *(Kelly–City)*
- Extend the vertical wall that is part of Ortega Bridge a short distance to save another dwelling. *(Kelly–City)*
- Expand the landscaping behind the vertical wall at the Bath Street Bridge to allow vegetation to grow down and behind the wall. *(Kelly–City)*
- At Cota, slightly change the bridge alignment and perhaps extend the vertical wall a short distance to save the dwelling, which has some historic significance. *(Kelly–City)*

- Reduce the capacity of the "sewer" lagoon by putting a portion of its capacity in a box culvert that would run down to the ocean or State Street. Might be able to clean up the lagoon better. Plant vegetation on both sides of the lagoon to create a canopy. Install a lighted walkway with trees and plants on top of the culvert.
  Build a box culvert in the De La Vina area, as well, and cover it.
- Re the box channel across the railroad yards: open it up, go straight, and make it really big (300 feet wide) by getting rid of the parking lot, and put the railroad on a trestle.
  Use pumps to pull the water out rapidly.
- Narrow State and Cabrillo streets to give the creek more room to expand.
- Vertical walls should not extend all the way up to the estuary.
- The design has too much concrete.

Response – Project Design:

Concerns – The Buried Culvert at the "Oxbow"

- We need more information about how much excess flow this culvert will take away.
- Is there any part of the design of the box culvert that could assist in reducing the water discharge at that point? *(Planning Commissioner)*

Response – The Buried Culvert at the "Oxbow":

Concerns – Flood Control

- What type of protection will be project provide for floods that exceed the 20-year storm? *(Planning Commissioner)*
- If the capacity of the channel above the project area is 7,000 cfs, what is going to happen when we have a greater than 20-year storm?
  Is there a cutoff point from a cost-benefit standpoint? *(Planning Commissioner)*
- The project should be redefined to accommodate 3,210 cubic feet per second (cfs), which is what the consensus group agreed to. This would narrow the channel a couple of feet, which is important.
  What effect will increasing Mission Creek's capacity have on the area below the project area?

- What would it take to give us greater capacity, either through some alternative channel or some alternative solution?

Response – Flood Control:

Concerns – Erosion Problems

- Historically, flood water has washed out behind the vertical walls and taken away the bank. Isn't that still possible with the vertical walls in the project design? *(Planning Commissioner)*
- We need more specific examples of what you're going to do to ensure that the earth doesn't wash away.

Response – Erosion Problems:

Concerns – Biological Resources

- Vertical walls on the sides of the estuary are not compatible with tidewater Gobi habitat, which requires vegetated sloping banks.
- The area below Cabrillo Bridge is very important for tidewater Gobi habitat and should be included in a comprehensive creek management plan.
- The channel bed will be a biological desert (because of silt removal and herbicide spraying), leaving only thin strips of vegetation along the banks—where there are backs.
- Widening the creek bed increases maintenance responsibilities, which have environmental impacts. The creek bed doesn't have high environmental values because of maintenance. The creek banks do, since they contain the habitat. They should be made wider by buying stream-side properties and further laying back the banks where there are proposed walls.
- When was the last time a steelhead trout was caught in Mission Creek?
- The EIS/EIR should contain more details on the environmental impacts of flood control on estuary activity. *(Planning Commissioner)*
- The EIS/EIR should contain a discussion of the Laguna wetlands proposals that are part of the project. *(Planning Commissioner)*

Response – Biological Resources:

Concerns – Water Quality

- Include in the final report more discussion of the hazardous materials discharging into the creek. *(Planning Commissioner)*
- Creek widening may accommodate even more shopping carts and other trash.
- The alternatives do not provide adequate shading to maintain proper water temperatures, which are important because dissolved oxygen and nutrient balances depend on maintaining temperatures and the proper ranges.
- The vertical walls minimize the potential for vegetation that is necessary to enhance water quality.
- The preservation of historic buildings should not take priority over water quality. It would be better to relocate the historic structures.
- Recommendation on how the project should deal with contaminants identified in the County/City Joint Stormwater Pollution Prevention Plan: install filters on the storm drain outlets.
- The project should take responsibility for and address the state and health of the creek waters all the way to the ocean.
- In the estuary area, sloped vegetated banks along the edges are better than concrete vertical walls to act as a biofilter. The plants will remove some of the pollutants as the water goes through them.
- Increase the native plantings along and on top of the banks to enhance biofiltration.

Response – Water Quality:

Concerns – Aesthetics

- Can aesthetic improvements to the Cabrillo Street Bridge be included in the project? *(Planning Commissioner)*
- Include in the final report an inventory of trees so that we can consider whether we want to lose them or save them and lose something else. *(Planning Commissioner)*
- Include in the final report a discussion of the bridge walls to be demolished and whether the old stone can be saved, conserved, reused in other parts of the project, or stored at the city for some future use. *(Planning Commissioner)*

- Vertical walls and the bridges should be replicated in Italian stone mason fashion.
- One-gallon trees are insufficient. They should be 15-gallon at a minimum. And there should be many more.
- The proposed aesthetic treatments should take into the account the views from the bridges as well as the banks. You're going to see the cement from the bridges. You should put in a lot more bank vegetation to hide the cement. The goal should be to make lower Mission Creek looking like Rockingham Park and the Museum of Natural History as much as possible.
- We need more specific examples (photos) of aesthetic treatment proposals for the bridges and banks. Sticking a row of trees on the top of a bank won't do much.
- If you're going to provide trees to homeowners to plant in their backyards, you must guide them as to the right places and planting procedures, or it won't do any good.
- What is the culvert bypass going to look like?
- Widening the creek means that you won't get shade in the creek bed from the trees for decades.
- Use computer modeling to generate shading patterns from the trees. *(Planning Commissioner)*

Response – Aesthetics:

Concerns – Public Safety

- Walkway across the creek could create lighting, security, and liability problems.
- Lighting should be installed in the pocket parks and on the bridges to reduce the possibility of vandalism.

Response – Public Safety:

Concerns – Socioeconomics

- The proposed walkway along the creek in the vicinity of the Chapala Street Bridge would adversely affect the neighborhood: bright lights shining into homes and a loss of privacy. It would be better to extend the culvert.
- Property owner objection to move house at 116 Chapala Street just to create a pocket park. City's assessment to determine which structures are cost-efficient to move is somewhat flawed. No one has determined whether this house is movable.

- Buildings should be moved out of the riparian corridor because they are encroachments.
- Vertical walls should not be extended to protect structures. There is too much vertical wall.
- Four structures now slated for saving by extending the vertical wall should be reconsidered for removal: on Ortega Street, at the corner of Ortega and Bath, on Cota and Bath, and near De La Vina and Halley. *(Planning Commissioner)*

Response – Socioeconomics:

Concerns – Recreation

- What will public access to the creek be? People will have a vested interest in keeping the creek clean if they have greater access. *(Planning Commissioner)*
- Is there an opportunity to use the lower creek around State and Cabrillo as a tourist attraction (maybe a creek walk)? *(Planning Commissioner)*
- Support pocket parks.

Response – Recreation:

Concerns – Maintenance

- How will you take care of trash in the creek? *(Planning Commissioner)*
- Have you given consideration to a street-sweeping program to help keep the creek clean? *(Planning Commissioner)*
- What will you do if flooding and erosion destroy the vertical walls? *(Planning Commissioner)*
- Who will maintain the box culvert, and how will it be maintained? *(Planning Commissioner)*
- Install permanent trash cans at the bridges.
- Trash in the creek needs to be cleaned out more than four times a year.
- Maintenance should result in minimal disruption to native plantings on the creek bottom and slopes.
- Clear the streambed in a mosaic pattern to leave some plants at different periods of time to enhance regrowth.

- The high threshold for silt removal should be 25 percent.
- Disturbances upstream that would contribute to erosion should be strictly monitored and lot allowed.
- The maintenance plan should be developed with community participation.
- The EIS/EIR should contain more details on the environmental impacts of abatement measures, application of herbicides, and scraping or scouring. *(Planning Commissioner)*

Response – Maintenance:

Concerns – Cumulative Impacts

- The La Entrada Project at the intersection of State and Mason Streets. Did the City of Santa Barbara notify the Corps of Engineers of this project? Were the Alternative 12's impacts on this project evaluated in the EIS/EIR?
- There must be a buffer between the La Entrada Project and the Harbor View Inn Project and the flood control project.

Response – Cumulative Impacts:

Concerns – Other

- Planning Commission should look at ways to guide future development so that it doesn't add to water coming down the creek.
- This project should be just the initial phase of a long-range plan to restore all reaches of Mission Creek (establishing adequate buffer zones, acquiring properties and easements over time, compelling property owners to remove encroachments and impervious surfaces from the creek, and providing incentives for gradual retreat).
- The City of Santa Barbara Redevelopment Agency funds of $2.5 million to augment the restoration components of the flood control project should be spent to buying additional riparian properties for riparian habitat.

APPENDIX - I -2

SUMMARY OF PUBLIC HEARING
LOWER MISSION CREEK FLOOD CONTROL PROJECT
SANTA BARBARA, CALIFORNIA

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

SEPTEMBER 2000

SUMMARY
PUBLIC MEETING (HEARING)
DRAFT EIS/EIR
JANUARY 19, 2000

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APPENDIX - J

CORRESPONDENCE AND DISTRIBUTION LIST FOR ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT

LOWER MISSION CREEK FLOOD CONTROL PROJECT SANTA BARBARA, CALIFORNIA

SEPTEMBER 2000

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

June 27, 2000

Office of the Chief
Environmental Resources Branch

Mr. Daniel Abeyta
Acting State Historic Preservation Officer
Office of Historic Preservation
P.O. Box 942896
Sacramento, California 94296-0001

Dear Mr. Abeyta:

We are writing in regard to completing Section 106 compliance for the Lower Mission Creek Flood Control Project (LMCFCP) in the City of Santa Barbara, Santa Barbara County. The LMCFCP is located in the southern part of Santa Barbara and extends 1.2 miles from Canon Perdido Street to Cabrillo Boulevard (Enclosure 1). We wrote to your office on January 3, 2000 as required under 36 CFR 800.3(c)(3). We received a reply dated January 27, 2000. Our January 3 letter explained the project and all of the steps that had been taken toward identifying historic properties within the area of potential effects (APE). Your project file number is COE000106A. We have been in consultation with Ms. Natalie Lindquist of your staff regarding this project.

The LMCFCP was originally surveyed in 1985 for a larger project that was dropped. A recent survey was conducted by the Corps of Engineers (COE) in 1998 for this particular project. At the time of that survey, the APE was restricted to the channel. The results of the survey are in the enclosed report entitled "*Cultural Resources Survey Of 1.2 Miles Of Lower Mission Creek For The Lower Mission Creek Flood Control Project In The City Of Santa Barbara, Santa Barbara County, California* " that was prepared by COE staff archeologist, Richard Perry (Enclosure 2).

During the alternatives formulation process the decision was made to widen the channel in a number of locations to a top width of 70-feet to accommodate a 3400 cfs flow. Following this decision, the City of Santa Barbara contracted with Post/Hazeltine Associates (PHA), to conduct an architectural survey of the APE. The results of their survey are in the enclosed report entitled "*Phase I/II Arcitectural* [sic] *Resources Report for The Mission Creek Flood Control Project.*" Their survey was based on earlier project maps that have since been updated. However, their survey was comprehensive and some houses and structures that were originally scheduled for removal, alteration, or relocation will be avoided (Enclosure 3). A list of all the structures in the APE that were surveyed by PHA are in the enclosed list (Enclosure

4). They are grouped according to which map they are found on. They are listed as Maps 1 through 4 which correspond with the four current project maps (Enclosure 5) beginning with the eastern end of the APE at Cabrillo Boulevard. The maps in the PHA report show the building that were going to be affected with diagonal hachuring. The number of buildings to be removed has been greatly reduced. The project has been redesigned to insure avoidance of any buildings or structures that would have been National Register eligible

The list of non-eligible and eligible structures and buildings in Enclosure 4 also has the corresponding page number in the PHA report for reference. The Mission Creek Diversion and the Chapala Street Bridge are no longer in the APE. The project was redesigned to have the water flow through an underground culvert. However, due to their close proximity to the APE and in the event that there is a final project redesign, we have concluded that they should be included in our compliance efforts. The Mission Creek Diversion was previously determined eligible as part of the Railroad Depot Historic property. The eight houses that are considered by PHA to be potentially eligible for National Register listed are in the APE but were evaluated for their architectural significance, not the historic setting. Another project element requires removal and reconstruction of four bridges to accommodate the expanded water flow. They are listed in Table 3. on page 12 of the survey report. The bridges are on Ortega, Cota, De la Vina at Haley, and Mason Streets. All are category 5 level of significance on the Caltrans list which means that they are not eligible for NHRP listing (Enclosure 5).

An additional feature of the PHA report was that they identified two historic districts that contain some of these buildings and structures that were evaluated. A number of the buildings in the APE were eligible on the local and State level, but failed to meet the criteria for inclusion in the National Register. The two historic districts are known as the Waterfront, and the West Downtown Neighborhoods. They are fully described on pages 24 through 31, and are shown on the map in Figure 6. on page 175.

We have agreed with the Caltrans bridge survey and have determined that bridges numbered 51C0246; 51C0247, 51C0287, and 51C0301 are not eligible for inclusion in the National Register of Historic Places. After conducting a survey of the Lower Mission Creek Channel and reviewing the PHA architectural survey report, we have determined that the following houses are eligible for inclusion in the National Register under Criterion c. for their architectural features. Furthermore, they are eligible as contributing elements to the two historic districts:

Waterfront Neighborhood Historic District:

20 West Mason Street, 116 Chapala Street, 118 Chapala Street, 120 Chapala Street, and Chapala Street pony truss Bridge. The Mission Creek Diversion has already been determined eligible for the National Register as part of the Railroad Depot National Register property.

West Downtown Neighborhood Historic District:
311/313 West Ortega Street, and 536 Bath Street

We have also determined that since the buildings and structures are eligible under Criterion c. for their architectural design and not their historic setting, and that the four bridges from the Caltrans list are not eligible for listing, the Lower Mission Creek Flood Control project as planned will not adversely effect National Register listed or eligible properties.

Correspondence may be sent to:

Mr. Richard Perry (CESPL-PD-RN)
U.S. Army Corps of Engineers
P.O. Box 532711
Los Angeles, California 90053-2325

We request that you review the enclosed information. If you agree with our determinations of eligibility and no adverse effect, we would appreciate your concurrence. We understand that you have 30 days in which to respond to this request, otherwise we will proceed according to the provisions stated in 36 CFR 800.4(d) and consider that we have discharged our obligations under Section 106. If you have any questions concerning this project or the determination, please contact project archeologist, Mr. Richard Perry, at (213) 452-3855, or by Email at rperry@spl.usace.army.mil.

Sincerely,

Robert E. Koplin, P.E.
Chief, Planning Division

Enclosures

STATE OF CALIFORNIA – THE RESOURCES AGENCY
GRAY DAVIS, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
ACRAMENTO, CA 94296-0001
16) 653-6624 Fax: (916) 653-9824
alshpo@ohp.parks.ca.gov

August 3, 2000

Reply To: COE000106A

Mr. Robert E. Koplin, P.E.
Chief, Planning Division
Attn: Mr. Richard Perry (CESPL-PD-RN)
U.S. Army Corps of Engineers
P.O. Box 832711
Los Angeles, CA 90053-2325

Re: Lower Mission Creek Flood Control Study, Santa Barbara, CA

Dear Mr. Koplin:

Thank you for your letters of June 27 and August 1, 2000, requesting my review and comments in regard to the Corps of Engineer's (COE) efforts to determine whether the project described above may affect historic properties. You have done this, and are consulting with me, in order to comply with Section 106 of the National Historic Preservation Act and implementing regulations codified at 36 CFR Part 800.

The COE has determined that the following properties are not eligible for the National Register of Historic Places (NRHP):

- Bridge 51C0246 – the Mission Creek Bridge between Bath and Dela Vina Street
- Bridge 51C0247 – the Mission Creek Bridge at the intersection of Dela Vina and Haley Street
- Bridge 51C0287 – the Mission Creek Bridge between Chapla and State Street
- Bridge 51C0301 – the Mission Creek Bridge between Castillo and Bath Street
- 116 Chapala Street, Santa Barbara, CA
- 134 Chapala Street, Santa Barbara, CA
- 29 State Street, Santa Barbara, CA
- 15 W Mason Street, Santa Barbara, CA
- 129 W Haley Street, Santa Barbara, CA
- 208 W Haley Street, Santa Barbara, CA
- 434 De La Vina Street, Santa Barbara, CA
- 221 W Cota Street, Santa Barbara, CA
- 230 W Cota Street, Santa Barbara, CA
- 532 Bath Street, Santa Barbara, CA
- 536 Bath Street, Santa Barbara, CA
- 631 Bath Street, Santa Barbara, CA
- 633 Bath Street, Santa Barbara, CA
- 303 W Ortega Street, Santa Barbara, CA
- 306 W Ortega Street, Santa Barbara, CA
- 308 W Ortega Street, Santa Barbara, CA
- 326 W De la Guerra, Santa Barbara, CA

In addition the COE has determined that the following are eligible for the NRHP under Criterion C:

- 118 Chapala Street, Santa Barbara, CA

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
ACRAMENTO, CA 94296-0001
16) 653-6624 Fax: (916) 653-9824
alshpo@ohp.parks.ca.gov

August 3, 2000

Reply To: COE000106A

Mr. Robert E. Koplin, P.E.
Chief, Planning Division
Attn: Mr. Richard Perry (CESPL-PD-RN)
U.S. Army Corps of Engineers
P.O. Box 832711
Los Angeles, CA 90053-2325

Re: Lower Mission Creek Flood Control Study, Santa Barbara, CA

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- 633 Bath Street, Santa Barbara, CA
- 303 W Ortega Street, Santa Barbara, CA
- 306 W Ortega Street, Santa Barbara, CA
- 308 W Ortega Street, Santa Barbara, CA
- 326 W De la Guerra, Santa Barbara, CA

In addition the COE has determined that the following are eligible for the NRHP under Criterion C:

- 118 Chapala Street, Santa Barbara, CA
- 120 Chapala Street, Santa Barbara, CA
- 20 W Mason Street, Santa Barbara, CA
- 309 W Ortega Street, Santa Barbara, CA
- 311/313 W Ortega Street, Santa Barbara, CA
- Chapala Street Pony Truss Bridge
- Mission Creek Diversion

The COE has also determined that the Lower Mission Creek Flood Control Project will have no adverse effect on historic properties. Based on review of the submitted documentation, I concur with the foregoing determinations.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlind@ohp.parks.ca.gov.

Sincerely,

Daniel Abeyta, Acting
State Historic Preservation Officer

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
O. BOX 942896
CRAMENTO, CA 94296-0001
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calshpo@ohp.parks.ca.gov

January 27, 2000

Reply To: COE000106A

Mr. Robert E. Koplin, P.E.
Chief, Planning Division
Attn: Mr. Richard Perry (CESPL-PD-RN)
U.S. Army Corps of Engineers
P.O. Box 832711
Los Angeles, CA 90053-2325

Re: Lower Mission Creek Flood Control Study, Santa Barbara, CA

Dear Mr. Koplin:

Thank you for requesting my comments, pursuant to 36 CFR §800.3(c)(3), about the undertaking cited above. The proposed project includes the demolition and replacement of seven non-historic bridges, demolition and reconstruction of the Chapala Street Bridge, removal of two houses, and partial removal of the sandstone Mission Creek Diversion. The next step for the Corps of Engineers (COE) will be to initiate Section 106 consultation for this undertaking. I look forward to working with the COE in the future regarding this project.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at nlind@ohp.parks.ca.gov.

Sincerely,

Daniel Abeyta, Acting
State Historic Preservation Officer

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

June 21, 2000

Office of the Chief
Environmental Resources Branch

Mr. Peter Douglas
Executive Director
California Coastal Commission
Attn: Mr. Jim Raives
45 Fremont, Suite 2000
San Francisco, California 94105

Dear Mr. Douglas:

The U.S. Army Corps of Engineers (USACOE) submitted its Coastal Consistency Determination (CCD) for the Lower Mission Creek Flood Control Project, Santa Barbara, California, for your review and consideration in December 1999 with the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

Since the submittal of the CCD, the USACOE has continuously and informally coordinated the proposed project with Mr. James Raives of your staff. Mr. Raives expressed several concerns for impacting environmental resources with implementation of the proposed project. The concerns include: visual resources; impacts to listed species (steelhead and tidewater gobies); estuarine habitat; mitigation for impacts to listed species, aquatic habitat, and existing vegetation; water quality; sand supply, and cultural resources. Mr. Raives requested additional information to facilitate preparation of a staff report and recommendation on Consistency Determination, (Consistency Determination No. CD-117-99).

The project design has been modified since the submittal of the CCD. By request of your office and other concerned resource agencies, the U.S. National Marine Fisheries Service (USNMFS) and U.S. Fish and Wildlife Service (USFWS) the Corps has performed additional analysis for hydrology of the stream with the project and without the project, providing detailed mitigation monitoring plan for the planted vegetation and significant resources located within the project area. The USACOE has revised biological assessments for tidewater gobies and steelhead to incorporate revised project related information. The USACOE has submitted revised BA to both agencies, the USFWS and USNMF. The Corps is including supporting documents: Mitigation Monitoring Plan, Biological Assessment for tidewater gobies; Revised Project Description; Hydraulics/Engineering analysis; Biological Assessment for Steelhead (*Oncohrynchus mykiss*), the project plans; and supporting plans and drawings. The Biological Opinion for tidewater gobies and steelhead would be provided to your office as soon as we received them from the USNMFS and USFWS.

The Corps requests your office to expedite the review process of the CCD and desires to obtain your concurrence with the CCD by August 2000 public hearing, in order to meet the critical timeframe for submittal of the Feasibility Report and the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Water Resources Development Act (WRDA) of 2000. The EIS/EIR should include biological opinion from your office and the U.S Fish and Wildlife Service (USFWS), and the California Coastal Commission's concurrence with the Coastal Consistency Determination (CCD) for the proposed project.

The WRDA is the legislation through which Congress authorizes the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes. It is critical for the City and the County of Santa Barbara and the residents of the Mission Creek Floodplain that the Corps obtain approval for the construction of this project as soon as possible. The last date that the Los Angeles District can submit documents identified in the above paragraph for inclusion in WRDA 2000 is August 31. If we miss this submittal date, the project authorization could be delayed until year 2002 or beyond.

Your timely concurrence with our CCD submitted in December 1999 would be greatly appreciated to allow project construction to commence on the scheduled date. If you have any questions regarding this project please contact Ms. Joy Jaiswal Environmental Coordinator at (213) 452-3871, or Dr. John Moeur project biologist at (213) 452-3874.

Thank you for your time and attention to this request.

Sincerely,

Robert E. Koplin, P.E
Chief, Planning Division

Enclosures

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

REPLY TO
ATTENTION OF:

December 20, 1999

Office of the Chief
Environmental Resources Branch

Mr. Peter Douglas
Executive Director
California Coastal Commission
Attn: Mr. Jim Raives
45 Fremont, Suite 2000
San Francisco, California 94105

Dear Mr. Douglas:

The U.S. Army Corps of Engineers (USACOE), submits this Coastal Consistency Determination (CCD) for the Lower Mission Creek Flood Control Project, Santa Barbara, California for your review and consideration. The USACOE has initiated coordination with Mr. Jim Raives of your staff to determine the need for a CCD. A copy of the Draft Feasibility Report and Draft Environmental Impact Statement/Environmental Impact Report is also provided for detailed analysis for each environmental resources.

The study is limited to the final 1.2 miles of the creek, between Canon Perdido Street and Cabrillo Boulevard This study does not extend to the lagoon. The proposed project would provide 3400 cubic feet per second (cfs) of capacity and approximately a 20-year level of flood protection. A project description is provided in enclosure 1 of the CCD. Environmental commitments or mitigation measures have been developed for each environmental resource to avoid or minimize project related impacts (enclosure 2). Information for the biological resources can be found in the HEP analysis report, Biological Assessment and USFWS's Coordination Act Report (enclosure 3, 4 and 5).

Your timely concurrence of this CCD would be greatly appreciated to allow project construction to commence on the scheduled date. If you have any questions regarding this project please contact Ms. Joy Jaiswal, Environmental Coordinator at (213) 452-3871, or Dr. John Moeur, project biologist at (213) 452-3874.

Thank you for your time and attention to this request.

Sincerely,

Robert E. Koplin, P.E
Chief, Planning Division

Enclosures

Jan

RECEIVED
AUG 10 2000
CITY OF SANTA BARBARA
PLANNING DIVISION

August 9, 2000

Pat Kelly
City of Santa Barbara
Public Works Department
630 Garden Street
Santa Barbara, CA 93101

RE: LOWER MISSION CREEK SHADE ANALYSIS, FEBRUARY 25, 2000

Dear Pat,

The Environmental Defense Center (EDC) has reviewed the Lower Mission Creek Shade Analysis performed by Penfield and Smith and submitted to you under a February 25, 2000 cover letter. This letter represents EDC's comments in response to the shade analysis.

The Analysis Assumes Trees will be Planted by the Community

In its first sentence, the February 25, 2000 letter to you states that "this analysis was performed in response to questions regarding how much of the water in Lower Mission Creek would be shaded after completion of the project proposed by the Army Corps of Engineers." However the letter also states, on page 2, that the analysis "assumes that some sycamore and willow trees will be planted by the community adjacent to the creek bank on private property." This assumption renders the analysis flawed because "the project" undergoing environmental review does not include the planting of trees by "the community" or by anyone else along any of the banks where only vertical walls will be installed (e.g., no sloped vegetated bank).

Throughout the lengthy project reach, 35% of the banks will be vertical walls with no vegetated side slopes and no trees or shrubs planted on top of the vertical walls. This percentage of unvegetated banks is at least twice as high for the section of the project below Highway 101, where vertical walls with no trees will dominate the creek corridor. Since the analysis assumes planting of the extensive reaches of creek bank, particularly south of Highway 101 and along the lagoon that will not be planted as part of this project, the analysis only misrepresents the project impacts relating to water, biological and aesthetic resources.

The analysis should be redone with no dangerous assumptions about what "the community" may plant on "private property" in speculative future efforts distinct from the project.

The Analysis Assumes Extremely High Tree Growth Rates

The model also assumes very rapid plant growth. Sycamore trees are assumed to reach heights of 20 to 30 feet after 5 to 10 years. The analysis does not account for the fact the trees are proposed to be of local stock and origin that are typically not available in large container sizes. Even if 5-gallon and 10-gallon trees were available to plant, expecting them to reach heights of 20 to 30 feet in 5 to 10 years is unrealistic. Based on my extensive experience conducting and managing habitat restoration efforts along local creeks and reviewing and

906 GARDEN ST, SANTA BARBARA, CA 93101 • (805) 963-1622 FAX: (805) 962-3152 E-MAIL: edc@rain.org
31 N. OAK ST, VENTURA, CA 93001 • (805) 643-6147 FAX: (805) 643-6148 E-MAIL: edcvent@west.net

monitoring private creek restoration/mitigation plantings, I believe that sycamore trees should be expected to reach heights of 10 to 15 feet in 5 to 10 years. This is consistent with the growth rate of sycamores planted and irrigated along Mission Creek near State and Alamar, and consistent with the growth rates of other sycamores planted and maintained for creek restoration projects, including the San Jose Creek Restoration Project, on the south coast.

On the other hand, the expected growth rates of willow trees used in this model is consistent with the observed growth rates of willow trees planted and maintained as part of local creek revegetation projects.

The Analysis Ignores Limiting Effect of Inverted T-Foundation on Root Growth

Another factor that EDC considers to be a potential restriction on the growth rates of the sycamores and willows are the inverted T-foundations proposed for much of the project length where vertical walls are to be used. These foundational footings will restrict root growth and will hinder the ability of roots to grow into and below the channel bed to access water, particularly after irrigation ceases. The Corps has indicated that holes on the T-footings of the proposed walls could only be spaced every 40 feet to ensure structural integrity, and that is why it initially proposed planting sycamore trees every 40 feet. The physical constraints imposed by the inverted T-foundations will reduce the rate of tree growth compared to trees on banks that do not have physical barriers obstructing the root growth.

Conclusion

In closing, the authors of the analysis "cautioned" the reader to "remember that this shade analysis software probably only provides a general qualitative perspective." The shade analysis performed by Penfield and Smith represents a best case scenario for plant growth. The EIR/EIS will have to address the reasonable worst case scenario. The analysis assumes that the community will plant trees along the 35% of the project reach that, as proposed, will consist of vertical walls with no planted slopes. This assumed planting, however, is not part of the project description or mitigation measures, and therefore cannot be relied upon to conclude that the project will increase shading. Plant growth rates used for the analysis are unrealistically high given experiences with other creek revegetation projects in this region, and do not account for the restrictions imposed by the walls' foundations. This analysis does not confirm that shading along the project reach will be increased, and leaves the concern not addressed. The analysis should be conducted again utilizing reasonable worst-case scenario growth rates as required by CEQA to analyze only project-related activities.

Thank you for your attention to these comments.

Sincerely,

Brian Trautwein
Environmental Analyst

cc: Jan Hubbell, City of Santa Barbara Community Development Department
John Mour, U.S. Army Corps of Enginers

August 9, 2000

Pat Kelly
City of Santa Barbara
Public Works Department
630 Garden Street
Santa Barbara, CA 93101

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Sincerely,

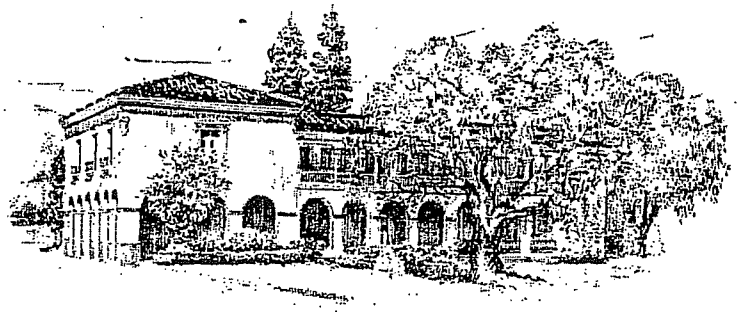
Brian Trautwein

Brian Trautwein
Environmental Analyst

cc: Jan Hubbell, City of Santa Barbara Community Development Department
John Mour, U.S. Army Corps of Engineers

CITY OF SANTA BARBARA

3LIC WORKS DEPARTMENT
Telephone: (805) 564-5377
Fax: (805) 564-5467
www.ci.santa-barbara.ca.us



630 Garden Street
P.O. Box 1990
Santa Barbara, CA 93102-1990

August 21, 2000

Mr. Brian Trautwein
Environmental Defense Council
906 Garden Street
Santa Barbara, CA 93101

SUBJECT: LOWER MISSION CREEK – SHADE ANALYSIS

Dear Mr. Trautwein:

Thank you for your comments regarding a shade analysis that we did for the project. The analysis was initiated in response to a request from our project design review subcommittee. The subcommittee included members of Historical Landsmarks Commission, Architectural Board of Review, Planning Commission and City staff. The committee was very helpful in helping to add environmental, community, aesthetic, etc. elements, into the project description.

You may recall the idea of coordinating the landscaping effort for the project with the adjacent private property owners. This was recommended in a letter from the South Coast Watershed Alliance. We all think this is a good idea.

The idea is to plant riparian trees and other riparian vegetation on private property behind the project right-of-way that could grow to provide additional shade to the creek as part of a community planting project. Since this type of effort is beyond what a Corps sponsored federal project typically includes, City staff is currently planning to include this effort as originally proposed, as a community program. The City would arrange for community groups to coordinate this effort. So, even though the proposed landscaping behind the project right-of-way is currently not part of the Corps project, City staff is committed to make it happen. Efforts have already been initiated toward this. It is expected that when the project is completed, many adjacent property owners will have taken advantage of this community program.

I agree that the study is not absolutely accurate. It does not include the presence of existing trees or buildings that currently provide shade to lower Mission Creek. It also assumes there will be trees planted behind the project right-of-way as part of the proposed community landscaping program that may not actually get planted where assumed. I would not characterize this as a "dangerous assumption" as you noted in your August 9, 2000 letter. The analysis is simply, as noted by Penfield & Smith Engineers, "a generally qualitative perspective". It was not intended to be portrayed as anything more. We looked at doing a more quantitative analysis and found it to be cost prohibitive. The added cost for another analysis that probably still would not be absolutely accurate, was not deemed reasonable. As I said earlier, there are some existing elements that provide shade that are not included in the analysis, and there may be some elements as you argue in your letter that are over optimistic.

As I've noted earlier, we are interested in your concerns. We have initiated many other studies to analyze these concerns. The studies to date continue to find that the project description is sufficient to answer what I understand to be the concerns.

If you have any questions, please do not hesitate to contact me at 564-5366.

Yours very truly,

Pat Kelly
Assistant Public Works Director/City Engineer

PK/apm

cc: Jan Hubbell, Project Planner
John Moeur, U.S. Army Corps of Engineers, Los Angeles District, Planning Division, 911 Wilshire Boulevard, Los Angeles, CA 90017-3401
Bruce Burnworth, Penfield & Smith, Engineers Inc., 111 East Victoria Street, P.O. Box 98, Santa Barbara, CA 93102
Sharyn Main, South Coast Watershed Alliance, c/o Wendy P. McCaw Foundation, P.O. Box 22458, Santa Barbara, CA 93121

bcc: Mr. Tom Fayram, Santa Barbara County Flood Control District, 123 East Anapamu Street, Santa Barbara, CA 93101

CITY OF SANTA BARBARA

PUBLIC WORKS DEPARTMENT
Telephone: (805) 564-5377
Fax: (805) 564-5467
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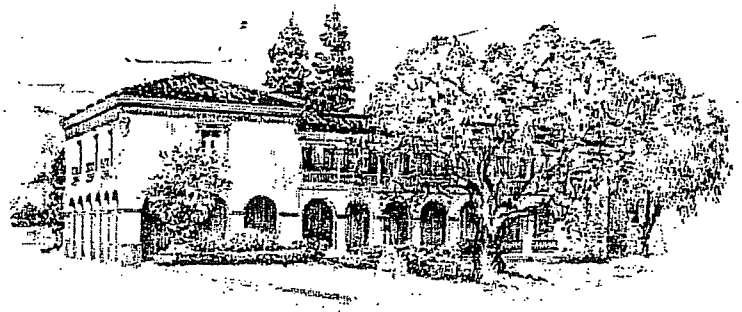

630 Garden Street
P.O. Box 1990
Santa Barbara, CA 93102-1990

August 21, 2000

Mr. Brian Trautwein
Environmental Defense Council
906 Garden Street
Santa Barbara, CA 93101

SUBJECT: LOWER MISSION CREEK – SHADE ANALYSIS

Dear Mr. Trautwein:

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If you have any questions, please do not hesitate to contact me at 564-5366.

Yours very truly,

Pat Kelly
Assistant Public Works Director/City Engineer

PK/apm

cc: Jan Hubbell, Project Planner
John Moeur, U.S. Army Corps of Engineers, Los Angeles District, Planning Division, 911 Wilshire Boulevard, Los Angeles, CA 90017-3401
Bruce Burnworth, Penfield & Smith, Engineers Inc., 111 East Victoria Street, P.O. Box 98, Santa Barbara, CA 93102
Sharyn Main, South Coast Watershed Alliance, c/o Wendy P. McCaw Foundation, P.O. Box 22458, Santa Barbara, CA 93121

bcc: Mr. Tom Fayram, Santa Barbara County Flood Control District, 123 East Anapamu Street, Santa Barbara, CA 93101

March 28, 2000

Jan Hubbell
City of Santa Barbara
Community Development
630 Garden Street
Santa Barbara, CA 93101

RE: LOWER MISSION CREEK FLOOD CONTROL PROJECT FEASIBILITY STUDY AND DRAFT EIR/EIS; SIGNIFICANT NEW INFORMATION REGARDING SIGNIFICANT NEW BIOLOGICAL IMPACT

Dear Jan:

The Environmental Defense Center (EDC) is a non-profit environmental law firm working to promote sustainable land uses, resource protection, and habitat restoration. As you are aware, EDC submitted extensive comments regarding the draft EIR/EIS for the Lower Mission Creek Flood Control Project in the form of a letter dated February 10, 2000. We appreciate the opportunity to comment on the project, its impacts, and the environmental review document, and are submitting significant new information regarding the project's potential impacts to steelhead that was not and could not have been known during or prior to the comment period for the draft EIR / EIS.

The presence of ocean-run steelhead in Lower Mission Creek this year has been documented and celebrated by creek neighbors, creek watchdogs, and the media. While the presence of steelhead in the creek is not new information (two were documented by the Department of Fish and Game in 1998 at 410 West Islay Street and others have been documented throughout recent history,) steelhead spawning in Lower Mission Creek had not been previously recorded. In Mid-March of this year, steelhead ranging up to 27 inches in length were videotaped and photographed spawning in Lower Mission Creek, adjacent to the 700 block of Bath Street. In addition, several redds (steelhead nests) were identified in the creek adjacent to both the 700 and 800 blocks of Bath Street. The attached Santa Barbara News Press photograph and article dated March 15, 2000 verify the newly documented spawning activity.

The draft EIR/EIS recognizes that steelhead utilize Lower Mission Creek. However, the document only recognizes the value of Lower Mission Creek as a migratory corridor for steelhead, and does not recognize its value as spawning habitat. The EIR states that steelhead would only be in the lower reaches of the creek during migration between December 15 and March. EDC comments submitted on February 10, 2000 counter this by explaining that steelhead are found lower reaches of the creek during other times of the year. However, the lower portion of the creek has never been viewed as spawning habitat by the EDC, in the draft EIR/EIS, or by other experts. In light of the significant new information that steelhead spawn in Lower Mission Creek, this viewpoint must be reexamined and changed.

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The draft EIR/EIS recognizes the presence of steelhead in the creek, but does not account for spawning activity that can and that does occur in the project reach, and thus the draft EIR/EIS does not analyze the impacts of the project on spawning. For this reason, based on this new information, the draft EIR/EIS must be made to address this new information and the related new significant impacts raised by it.

The fact that spawning occurs in the lower reaches of the creek, coupled with anticipated significant impacts to the streambed and aquatic habitat, means that the project will have new significant impacts not addressed by the draft EIR/EIS or by EDC's comments or other public or agency comments. Some of the same project impacts to steelhead over-summering pools in Lower Mission Creek identified by EDC also apply to steelhead spawning areas. In addition to the impacts identified by EDC in our previous letter, the proposed project will also:

- Increase thermal pollution temporarily or permanently as a result of creek widening and tree removal. Warmer water renders steelhead less able to conduct spawning activities, and reduces steelhead hatchling survival rates.

- Increase sedimentation as a result of reduced runoff velocities (caused by a wider channel.) This will reduce the percentage of gravel relative to fine sediments in substrate materials at steelhead spawning locations. Reduced percentages of gravel relative to fines in the creek bed equates to reduced size and number of potential spawning areas, degradation of spawning areas, potential abandonment of spawning areas, and reduced survival of steelhead eggs and frye.

- Increase maintenance levels including desilting associated with the increased sedimentation. As documented in the draft EIR/EIS and commented on previously by EDC, increased sedimentation and desilting will further degrade steelhead spawning areas and spawning activities by disturbing stream bed sediments, pools and riffles.

- Increase the use of herbicides including glyphosates to keep the channel bed cleaner of vegetation than it is currently kept. Glyphosates in herbicides and/or surfactants applied with typically used herbicides in local creeks are toxic to steelhead, and would adversely impact spawning and hatchling and frye survival. Information regarding the toxicity of glyphosates to salmonids was presented in our previous submittal.

- Widen the creek, inducing increased sedimentation. This will have the effect of reducing pool/riffle formation and it may change or eliminate the very pools in which the redds and spawning steelhead were found in this year. Steelhead require a certain stream geomorphology to establish successful redds and to successfully reproduce. The project will change the creek bed geomorphology due to construction and maintenance and will result in conditions less conducive to spawning than exist currently.

Steelhead spawn in Lower Mission Creek, and steelhead of all life stages can be present in Lower Mission Creek year round. The draft EIR/EIS failed to accurately analyze the impacts to steelhead from widening and maintenance, and specifically failed to consider or analyze the impacts to steelhead spawning in Lower Mission Creek. Prior to March of this year, it was not known, and could not have reasonably been known, that steelhead spawn in Lower Mission Creek. Now that this new information is available, the project's environmental review must address it. Based on EDC's analysis of the impacts to steelhead spawning and reproduction, we feel that there is evidence in the record and grounds to find that the project will result in a new significant biological impact.

Even the draft EIR/EIS' HEP determined that the habitat utilized by steelhead, the streambed will be seriously degraded as a result of the project. The streambed habitat value will drop from .8 habitat units to .3 habitat units. This degradation of the creek bed habitat associated with widening and maintaining the channel more free of vegetation will significantly impact steelhead, but significant impacts to steelhead were not identified in the draft EIR/EIS. Now that the area is known as spawning habitat for steelhead, the planned degradation of the streambed and aquatic habitat values by more than half must be considered a significant impact to steelhead, an endangered species.

In closing, the project, as proposed, would further reduce the numbers of southern steelhead which have already declined by an estimated 99% over historic population levels. This is a new, significant impact, based on new information. Impacts to steelhead spawning must be addressed through this environmental review process. EDC looks forward to working with the City, the County and the Corps in the modification of the project to reduce or eliminate significant impacts to endangered resources.

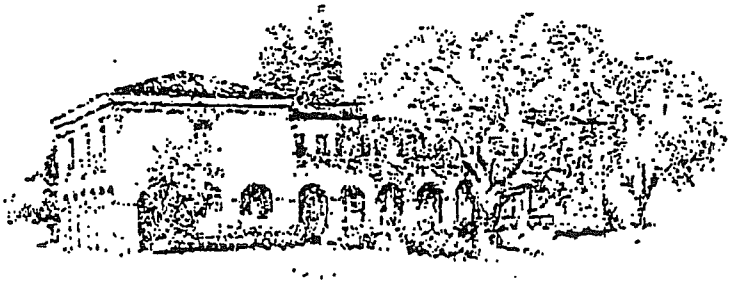
Thank you for your attention to our comments.

Sincerely,

Brian Trautwein,
Environmental Analyst

cc: Santa Barbara County Board of Supervisors
Santa Barbara County Flood Control District
Santa Barbara County Planning and Development Department
Santa Barbara City Council
Santa Barbara City Engineer
California Coastal Commission
California Department of Fish and Game
California Regional Water Quality Control Board
US Fish and Wildlife Service
National Marine Fisheries Service
Congresswoman Lois Capps
Waterways Restoration Institute

CITY OF SANTA BARBARA



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February 22, 2000

Mr. James Raives
California Coastal Commission
45 Fremont St., Suite 2000
San Francisco, CA 94105-2219

SUBJECT: Lower Mission Creek Flood Control Project, Coastal Consistency Determination (CD-117-99)

Dear Mr. Raives:

We have reviewed the memorandum you wrote to John Moeur at the U.S. Army Corps of Engineers (Corps) and the Draft Staff Report and Recommendation on the above-stated project. We understand that the Corps will be responding to most of the issues you have raised. However, the City of Santa Barbara has additional comments as well. These comments primarily focus on the vertical walls between Yanonali and State Streets and on water quality issues.

Replacement of Vertical Walls Between Yanonali and State Streets

Coastal Commission staff has raised the question of why the U.S. Army Corps of Engineers is not proposing to do either a short vertical wall with vegetated riprap slope above or a full vegetated riprap bank below the Freeway. There are several reasons why this is not being pursued. Alternative 12 (the Preferred Alternative) is projected to cost approximately $18 million (this includes revisions to reflect the gross appraisal of acquisition costs prepared for the City and changes to the project design to reduce land acquisition costs). Alternative 9, which includes the low vertical toe wall and vegetated riprap above and is the alternative that most closely complies with the California Coastal Commission's request, is even more expensive. For additional information regarding how the Corps calculated real estate costs, as well as additional information on the hydrologic models, we have included a copy of the Technical Appendices for the Main Report (Exhibit 1). There are also additional costs that were not considered in the Corps estimation of costs. These are outlined in more detail below.

Additional Property Acquisition Costs

In order to include short vertical walls and a vegetated riprap slope and keep the proposed 3400 cfs capacity, it would be necessary to widen the channel at the top of the bank by 20 feet. If the channel is designed with a full vegetated riprap slope, it would be necessary to widen the channel at the top of the bank by 32 feet. This would result in the need to demolish or relocate several buildings not considered for demolition as part of Alternative 12. These buildings are outlined in Exhibit 2 (attached). Land acquisition and relocation costs would increase from approximately $4.1 million to $8.1 million, increasing the project cost to at least $22 million. It should be noted that the Corps estimates for acquisition for this area are substantially less than the $4 million estimated by the independent appraisal performed as part of the required gross appraisal.

Required Replacement of Low and Moderate Income Housing in the Coastal Zone

There are nine (9) units contained in the buildings that would be affected by constructing Alternative 9. At least some of the units affected may be housing inhabited by low/moderate income residents. If this is the case, in addition to the standard relocation costs included above, it may be necessary to meet the provisions of California Government Code Article 10.7, Low- and Moderate-Income Housing Within the Coastal Zone, Section 65590, which states, in subsection (b):

> *"(b) The conversion or demolition of existing residential dwelling units occupied by persons and families of low or moderate income, as defined in Section 50093 of the Health and Safety Code, shall not be authorized unless provision has been made for the replacement of those dwelling units with units for persons and families of low or moderate income. Replacement dwelling units shall be located within the same city or county as the dwelling units to be demolished. The replacement units shall be located on the site of the converted or demolished structure or elsewhere within the coastal zone if feasible, or, if location on the site or elsewhere within the coastal zone is not feasible, they shall be located within three miles of the coastal zone. The replacement dwelling units shall be provided and available for use within three years from the date upon which work commenced on the conversion or demolition of the residential dwelling unit. In the event that an existing residential dwelling unit is occupied by more than one person or family, the provisions of this subdivision shall apply if at least one such person or family, excluding any dependents thereof, is of low or moderate income. ...*
>
> *"The requirements of this subdivision for replacement dwelling units shall not apply to the following types of conversion or demolition unless the local government determines that replacement of all or any portion of the converted or demolished dwelling units is feasible, in which event replacement dwellings shall be required:*

> *"(1) The conversion or demolition of a residential structure which contains less than three dwelling units, or, in the event that a proposed conversion or demolition involves more than one residential structure, the conversion or demolition of 10 or fewer dwelling units.*
>
> *"(2) The conversion or demolition of a residential structure for purposes of a nonresidential use which is either "coastal dependent," as defined in Section 30101 of the Public Resources Code, or "coastal related," as defined in Section 30101.3 of the Public Resources Code. ...*
>
> *"(3) The conversion or demolition of a residential structure located within the jurisdiction of a local government which has within the area encompassing the coastal zone, and three miles inland therefrom, less than 50 acres, in aggregate, of land which is vacant, privately owned and available for residential use.*
>
> *"(4) The conversion or demolition of a residential structure located within the jurisdiction of a local government which has established a procedure under which an applicant for conversion or demolition will pay an in-lieu fee into a program, the various provisions of which, in aggregate, will result in the replacement of the number of dwelling units which would otherwise have been required under this subdivision."*

Replacement of lost low/moderate income housing in the Coastal Zone or anywhere in the City of Santa Barbara is extremely expensive, given the value of land in the Santa Barbara area (much less the Coastal Zone itself). The median cost of a single family home on the South Coast of Santa Barbara County was recently reported at $475,000, well above affordability for most people. Condominiums in the area are priced in the mid $250,000 range and above. Two-bedroom units currently rent at $1200 per month and above. It would require a subsidy of approximately $100,000 per unit to construct additional housing as required by Government Code Section 65590.

Use of Redevelopment Agency Funds

Commentors have suggested that City Redevelopment Agency funds could be used to provide for an alternative that includes the low vertical walls with vegetated side slope or a full vegetated riprap bank. The Community Redevelopment Law (Health and Safety Code §33000 et seq.) limits project purposes for which redevelopment funds may be used. Case law has indicated that unless such purposes are stated specifically in the Community Redevelopment Law, funds should generally not be used for such purposes. Capital recreation projects intended to foster private redevelopment of physically and economically blighted areas might be considered. However, payment for flood control facilities is not included in the list of projects. Redevelopment funding can be used to improve project aesthetics or to provide for needed recreation. However, as

indicated above, the additional funds required to purchase property to allow vegetated banks would be approximately $4 million. The City Redevelopment Agency has agreed to set aside $2.5 million to be used for project enhancements or betterments, provided that such enhancements are consistent with and foster the statutory objectives of Redevelopment law. This is not enough to buy the necessary property. In the Waterfront Area, south of U.S. 101, there are already significant recreation and park facilities, so the primary recreation focus has been on providing small passive park areas and/or "tot lots" north of the freeway, in the West Downtown area, where there are no park spaces and the residential density is much higher. Redevelopment funds would also be used to improve the appearance of the bridges to be replaced to make sure that they continue to fit the small-scale, semi-residential character of their neighborhoods. Redevelopment funds would be used to expand the number of trees and other plants used in the project reach and in the habitat expansion areas, in order to assure as much of a canopy and understory as possible. Finally, redevelopment funds would be used to provide interpretive signs that would enhance the creek experience and promote public education on creek systems.

Cost of Mitigation for Lost Historic Resources

The City is very concerned about the potential loss of significant historic resources as a result of the project. All of the buildings west of Mission Creek on Chapala and Mason Streets in the Waterfront Area are eligible for listing on the National Register of Historic Places, the California Register of Historic Resources and for designation as either a City Landmark or City Structure of Merit. The 100 Block of Chapala Street also appears to be eligible for designation as a National Register Landmark District. There is no acceptable mitigation for the loss of these structures, which would be significant and unavoidable. Even partial mitigation, which would include full Historic American Buildings Survey documentation, at a minimum, would be costly. It is estimated that documentation of the four historic buildings on the west side of the creek would cost approximately $6,000. The best partial mitigation would be to try to relocate the structures to other parcels, which would be even more expensive than standard residential or business relocation costs, because of the need to both purchase a parcel on which to place the building and to actually move the building itself. At least one of the buildings may not be physically able to be relocated due to the type of construction involved. Costs could be expected to exceed $1 million.

Aesthetics

The appearance of the vertical walls is another issue in this section of the creek. A Mission Creek Design Subcommittee was formed in 1999 and has met regularly for the last several months. The Subcommittee includes representatives from the City's Historic Landmarks Commission (which has design jurisdiction over most of the creek south of U.S. 101), he Architectural Board of Review (which has design review jurisdiction where the Historic Landmarks Commission does not), the Planning Commission and the Parks and Recreation Commission. The concept of vegetated side slopes with short vertical toe walls was developed

with the assistance of the Design Subcommittee, based on the Alternative supported by the original Mission Creek Consensus Group. This alternative includes vertical walls where necessary to minimize impacts on historic structures and avoid prohibitively expensive acquisition of property, housing and businesses. The Design Subcommittee also made recommendations regarding various aesthetic improvements to the Corps project. The City forwarded these recommendations to the Corps and the Corps has agreed to incorporate these design changes into the project (see Exhibit 3 – 5 sheets showing the project reach by reach and Exhibit 4 – several pages showing design details). These drawings show that the concrete walls would be formed, textured and colored to resemble the sandstone walls so prevalent in Santa Barbara.

The preferred project (Alternative 12 plus the City and County preferred design changes) replaces significant sections of existing full height hard bank protection with vegetated side slopes with short toe walls. This approach is most feasible above the freeway where property costs are substantially less than in the areas below the freeway and development adjacent to the creek is somewhat less dense. However, as discussed below, there are two small habitat expansion zones in this area.

Habitat Expansion Zone Areas

While it may not be feasible to provide non-vertical walls for the entire project area south of Yanonali Street, it should be noted that there are two habitat expansion zones included in this area. Both are on the easterly side of the creek. One is between the creek and Kimberly Avenue, north of Mason Street. The second is immediately south of Mason Street. There are several ways to design these Habitat Expansion Zones. They can be designed so that there is vegetated riprap for the entire area. This would create locations for Tidewater gobies to hide in vegetation during high flows. It may also be feasible to redesign the area between State Street and Cabrillo Boulevard, which is proposed to have a low toe wall and vegetated riprap, to allow for more vegetation closer to the creek bottom.

Summary

For all of these reasons, including increased project costs, effects on housing and loss of cultural resources, we do not believe that it is feasible to redesign the project below U.S. 101 to include either low vertical walls with vegetated riprap side slopes or full vegetated riprap banks in the final design. We would further point out that the wider creek cross-section might also be more difficult to shade than the present vertical wall design. However, as indicated above, we believe that it may be possible to design both the habitat expansion zones in this area and the section between State Street and Cabrillo Boulevard to provide better habitat for the Tidewater goby.

Water Quality

Background

Mission Creek water quality was studied as part of the South Coast Watershed Characterization Study and reported on in the Study's final report dated August 1999 (Exhibit 5). This study was undertaken to investigate four Santa Barbara County South Coast streams in reaction to the coming mandate to develop a National Pollution Discharge Elimination System (NPDES) work plan under Phase II of the NPDES regulations. The study concluded that the major contamination problem for South Coast streams is bacteriological contamination. Specifically regarding Mission Creek, the study concluded:

- Bacteria are the principal pollutants of concern
- Much of the uppermost watershed has acceptable levels of bacteria
- Storm drains and creek encampments are probable sources of high levels of bacteria in the middle portions of the watershed
- Storm drains and lagoon fauna, such as birds, are probable sources of high levels of bacteria in the lower watershed
- No direct link between septic system and beach closures has yet been established
- Stormwater carries several times the low flow levels of bacteria

Concurrent and subsequent investigations by the City have identified the existence of encampments in the lower watershed as one primary cause of high bacteria levels. In addition, Old Mission Creek, the abandoned former channel of Mission Creek prior to channel relocation of the middle reach of Mission Creek, is also a significant contributor to elevated bacteria levels downstream of its connection to the current main channel of Mission Creek.

Current Activities

The City and County of Santa Barbara are cooperatively continuing efforts to clean up local creeks. The reaches of Mission Creek with high bacteria levels are within the boundaries of the City of Santa Barbara, so efforts in this creek are largely those of the City. The cooperative public education and information program, however, is a joint effort that is key to gaining public acceptance of the many activities and improvements that will be needed to improve creek water quality in Mission Creek and other South Coast creeks.

The City's efforts in Mission Creek include a variety of activities directed toward improving creek water quality. This group of activities is called the Creek Water Quality Improvement Project. The Creeks Strategic Plan Program is also investigating Creek restoration. Both of these approaches should result in improvements to the water quality in the City's creeks.

The Creek Water Quality Improvement Project includes the elements of a work plan required by Phase II of the NPDES stormwater management program. Activities include:

- Monitoring of creek water quality, including increased investigation of "hot spots"
- Increased enforcement of City ordinances related to prohibition of discharges of contaminated water
- Public information and education
- Municipal government good housekeeping
- Increased cleanups of catch basins and creeks
- Removal of illegal encampments within creek corridors
- Enhanced street sweeping

The City is also investigating the possibility of a pilot project for installation of one or more stormwater interceptors for storm drains that flow into lower Mission Creek.

The Creek Strategic Plan Program is doing a creeks inventory to determine restoration possibilities in City creeks, investigating revising City policies that are related to creek water quality and overall enhancement, and implementing a small number of opportunity restoration projects within City creeks. The creeks inventory is expected to present a larger list of restoration opportunities within City creeks. The opportunity projects of most interest for Mission Creek are enhancements to the Lower Mission Creek Flood Control Project and restoration of habitat and environmental education in a park along Old Mission Creek.

Future Activity in Mission Creek

The investigations underway indicate that lower Mission Creek has poor bacteriological water quality because it receives surface runoff from the City's commercial areas, has homeless encampments, and is the recipient of trash from a number of sources including neighboring residential areas and bridges. Old Mission Creek, which has elevated bacteria counts from a number of sources, provides the base flow for lower Mission Creek during periods of low flow. It is considered a "hot spot" and is a target for increased investigation to determine the exact sources of contamination. Because Mission Creek is the most visible City creek and is the subject of the flood control project, City staff is focusing efforts on this creek. The focused effort includes:

- Increased monitoring within the creek to determine sources of contamination dynamics (this includes weekly creek walks to document location and extent of contamination sources)
- Stormwater interceptor pilot project
- Installation of catch basin filters in the State Street commercial area (this area drains to lower Mission Creek)
- Cleanup of Old Mission Creek hot spot(s)

The Lower Mission Creek Flood Control Project, with the approved consensus-based enhancements, is considered to be an important creek restoration element for the improvement of water quality in the creek. We expect the creek restoration and the improved flood control maintenance elements of the project to be important additions to the water quality improvement activities described above. The improved creek bottom vegetation that is part of the project enhancements will act as a biofilter for the residual contamination. Improved flood control maintenance can act as a backup or enhancement to planned cleanup efforts. All these efforts will be needed to bring the water quality of the creek to the level expected by the residents of the City of Santa Barbara.

In conclusion, we believe that concerns regarding the use of vertical walls below Yanonali Street and the improvement of water quality can be resolved. If you have any questions, please contact Pat Kelly at (805) 564-5366 or Jan Hubbell at (805) 564-5470..

Sincerely,

Pat Kelly
City Engineer/Assistant Public Works Director

Janice M. Hubbell, AICP
Project Planner

Exhibits

1. Lower Mission Creek Flood Control Feasibility Study, Technical Appendices, December 1999
2. Estimate of Additional Right-of-Way Costs for Sloped Vegetated Side Slopes with Short Vertical Walls, State Street to Yanonali Street
3. City and County recommended Design Changes
4. City and County recommended Design Details
5. South Coast Watershed Characterization Study, August 1999, prepared by URS Greiner Woodward-Clyde for the Counties of Santa Barbara and Ventura and the Cities Santa Barbara and Carpinteria

cc: Dan Young, U.S. Army Corps of Engineers
Tom Fayram, Santa Barbara County Flood Control District

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

October 23, 1998

Ms. Joy Jaiswal
Technical Manager
U.S. Army Corps of Engineers, Los Angeles District
Environmental Design Section, CESPL-PD-RL
P.O. Box 532711
Los Angeles, CA 900 53-2325

Dear Ms. Jaiswal:

Thank you for the opportunity to comment on the notice of preparation of the draft Environmental Impact Statement/Environmental Impact Report on the Lower Mission Creek Flood Control Project. Here is a brief comment for your consideration in the Environmental Impact Statement.

Please include a complete analysis and documentation of the historical natural drainage patterns and modifications within the watershed. This would include rainfall quantities, groundwater discharges, dams, reservoirs, and imported water discharge. Through review of historic aerial photographs, land surveys, and knowledge of long time residents a record of water diversions and use can be acquired that will help provide understanding of creek drainage patterns. Many creeks and rivers have been diverted, diked, straighten, and shortened. These changes impact the their ability to effectively manage the energy of the water course. The knowledge of how creeks have functioned in the past is needed to develop an environmentally sensitive flood control project.

Should you have any questions regarding this letter, please contact me at 415/744-2013 or you can reach me by email at mcgovern.cheryl@epa.gov.

Sincerely,

Cheryl A. McGovern
Environmental Protection Specialist

SANTA BARBARA MUSEUM OF NATURAL HISTORY

30 November 1999

Steve Mack
Water Supply Manager
City of Santa Barbara
P.O. Box 1990
Santa Barbara, CA 93102-1990

Dear Mr. Mack:

Following El Niño rains of 1998, trout appeared in Mission Creek as it flows through the grounds of the Santa Barbara Museum of Natural History. Several of them remained here through the winter. In early summer of 1999, very young fish as well as adults were observed in pools at the Museum and up Mission Creek as far as its confluence with Rattlesnake Creek, indicating successful breeding activity at several locations. Concerned with protection of threatened species, the Museum has not publicized the existence of these fish. Nonetheless, many of our visitors have noticed them and are very eager to learn more about steelhead, why they are here, and how they fit into the riparian ecology of our area. Museum staff, their colleagues, families, friends, and other community members have also developed a strong interest in protecting these fish, which had not been seen here for many years.

There was great anxiety among all these people when it appeared that Mission Creek would go dry this summer, jeopardizing the survival of the trout. Fortunately, thanks to your quick action on being informed of the situation, these fears were not realized. Beginning in late July, you made water from the Gibraltar Reservoir - Santa Barbara Water Tunnel available for release into Mission Creek, maintaining a small but continuous flow that was enough to support many of the fish through summer and fall. The Museum community is most grateful to you for taking this action.

At present there is no assurance that similar release of city water will be possible in years to come. All of us at the Museum of Natural History hope that these remarkable fish can be assisted in their attempts produce healthy, self-sustaining populations in coastal streams. We would be pleased to work with the various agencies who oversee Mission Creek to find ways to support natural steelhead populations as part of this vital riparian ecosystem. The Museum is uniquely able to play a significant role in public education, which holds the key to the long-term survival of the southern California steelhead. Maintaining the fish that have come here to the Museum grounds is a good first step.

With deepest appreciation for your efforts,

David Anderson
Co-Executive Director

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