

**CALIFORNIA COASTAL COMMISSION**

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Filed: March 5, 2010  
49th Day: April 23, 2010  
180th Day: September 1, 2010  
Staff: Liliana Roman-LB  
Staff Report: April 27, 2010  
Hearing Date: May 12-14, 2010  
Commission Action:



## Item Th 13a

### STAFF REPORT: REGULAR CALENDAR

**APPLICATION NUMBER:** 5-09-082

**APPLICANT:** County of Orange, Resources and Development Management Department, Attn: Nardy Khan, Project Manager

**PROJECT LOCATION:** Santa Ana River Reach 1 (Pacific Ocean upstream to Hamilton Ave., through Newport Beach, Huntington Beach and Costa Mesa, Orange County)

**PROJECT DESCRIPTION:** Implementation of long-term routine maintenance activities to Reach 1 (approximately 1.5 miles of the flood channel) of the Santa Ana River channel including annual vegetation mowing/herbicide treatment/removal, cleaning of debris basins, inspections and periodic repair of channel hardscape such as retaining walls, dams, and related structures.

**LOCAL APPROVALS RECEIVED:** Regional Water Quality Board Section 401 Water Quality Certification, CA Department of Fish and Game Streambed Alteration Agreement (pending), US Army Corps of Engineers Nationwide Permit (pending)

**SUBSTANTIVE FILE DOCUMENTS:** CD-029-88, ND-111-00, ND-026-02

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### SUMMARY OF STAFF RECOMMENDATION:

The proposed project is for the implementation of long-term routine maintenance activities involving: (1) selective removal and/or herbicide treatment of non-native vegetation (i.e., arundo and castorbean) (2) vegetation control, removal/cutting of woody vegetation (i.e., willows and mulefat) with mower/dozer (3) periodic inspection of improved channels and floodways (4) repair and cleaning of debris basins, check dams, and related hardscape structures. The applicant requests that the coastal development permit (CDP) be granted in perpetuity. However, the Commission cannot grant such an open-ended approval. Site conditions and practices must be periodically reviewed to ensure that maintenance activities are in compliance with the Chapter Three policies of the Coastal Act. Substantive changes must come back to the Commission for review as an amendment or a subsequent permit. Therefore, the Commission imposes a special condition limiting the CDP to a five (5) year duration period from the date the permit is approved by the Commission. Any changes to the CDP would require approval by the Executive Director and requests for extension of time must return to the Commission for review and approval.

Staff recommends **APPROVAL** of the proposed project **with eight (8) special conditions** regarding: (1) Operations and Maintenance Responsibilities, (2) Staging Area, (3) Assumption of Risk, Waiver of Liability and Indemnity, (4) Timing and Operational Constraints, (5) Herbicide Use,

(6) Monitoring Responsibilities, (7) Duration of Permit, and (8) Conformance with the Requirements of the Resource Agencies

The stated purpose of the program is to maintain existing flood water carrying capacity in the Santa Ana River channel. This project is located within an area of Orange County where the Commission has retained jurisdiction over the issuance of coastal development permits and the standard of review for this project is the Chapter 3 policies of the Coastal Act.

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**LIST OF EXHIBITS:**

1. Location Map
2. Aerial Photograph of Project Boundaries
3. Santa Ana River Reach 1 Flood Channel Plan/Cross-Section
4. Santa Ana River Reach 2 Flood Channel Plan/Cross-Section
5. Lower Santa Ana River ACOE Description for Operation & Maintenance

**I. STAFF RECOMMENDATION:**

**MOTION:**     *I move that the Commission approve Coastal Development Permit No. 5-09-082 pursuant to the staff recommendation.*

**STAFF RECOMMENDATION OF APPROVAL:**

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

**RESOLUTION TO APPROVE THE PERMIT:**

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

**II. STANDARD CONDITIONS:**

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

### III. SPECIAL CONDITIONS

#### 1. Operations and Maintenance Responsibilities

- A. The permittee shall comply with the following construction-related requirements:
  - (1) No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to wave/wind erosion and dispersion;
  - (2) Any and all debris resulting from construction activities shall be removed from the site within 24 hours of completion of construction;
  - (3) Debris shall be disposed at a debris disposal site outside the coastal zone.
  - (4) Machinery or construction materials not essential for project improvements shall not be allowed at any time in the intertidal zone or within the river channel;
  - (5) Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material;
  - (6) If turbid conditions are generated during construction; a silt curtain shall be utilized to control turbidity;
  - (7) Floating booms shall be used to contain debris discharged into coastal waters and any debris discharged shall be removed as soon as possible but no later than the end of each day;
  - (8) Divers shall recover non-buoyant debris discharged into coastal waters as soon as possible after loss.

#### 2. Staging Area

- A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the permittee shall submit a plan for the review and approval of the Executive Director which indicates that the

construction staging area(s) and construction corridor(s) will avoid impacts to public access, to beach areas or to sensitive habitat areas.

1. The plan shall demonstrate that:
  - (a) Construction equipment or activity shall not occur outside the staging or storage area
  - (b) Public parking areas shall not be used for staging or storage of equipment
  - (c) Beach areas and habitat areas shall not be used as staging or storage areas
  - (d) The staging and storage area for construction of the project shall not obstruct vertical or lateral access to the beach or recreational use of the adjacent pedestrian/bicycle trail.
2. The plan shall include, at a minimum, the following components:
  - (a) A site plan that depicts:
    - (1) Limits of the staging area(s)
    - (2) Construction corridor(s)
    - (3) Construction site
    - (4) Location of construction fencing and temporary job trailers, if any

B. The permittee shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

### **3. Assumption of Risk, Waiver of Liability and Indemnity**

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from waves, storm waves, flooding and sea level rise; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

### **4. Timing and Operational Constraints**

- A. To avoid adverse impacts on sensitive bird species, maintenance activities shall not occur during the bird nesting season between March 1 and August 15 of any year. A qualified biologist or environmental resources specialist shall conduct a survey of the project site, to determine presence and behavior of sensitive species, prior to commencement of any development, the applicant shall submit the contact information of all monitors with a description of their duties and their on-site schedule. Project activities, including vegetation removal, shall not occur until any sensitive species (e.g., species listed on state or federal endangered/threatened species lists) including but not limited to California least tern, western snowy plover, Belding's savannah sparrow (e.g., California least tern, western snowy plovers, Belding's savannah sparrows have left the project area or its vicinity. In the event that any

sensitive wildlife species exhibit reproductive or nesting behavior, the environmental specialist shall require the applicant to cease work, and shall immediately notify the Executive Director and local resource agencies. Project activities shall resume only upon written approval of the Executive Director. The monitor(s) shall require the applicant to cease work should any breach in permit compliance occur or if any unforeseen sensitive habitat issues arise. The monitor(s) shall immediately notify the Executive Director if activities outside of the scope of this coastal development permit occur. If significant impacts or damage occur to sensitive wildlife species, the applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit.

- B. The permittee may undertake maintenance between March 1 and August 15 of any year upon obtaining a written statement of the Executive Director authorizing maintenance on specified dates. To obtain such a determination, the permittee must submit a declaration from the Department of Fish and Game stating that construction on the specific dates proposed will not cause adverse impacts to any sensitive or endangered species. The declaration must contain an assessment of the foraging, breeding, nesting activities of sensitive bird species found in the area and a statement that the construction activity on the specific dates proposed will not interfere with the foraging, breeding, nesting activities of the sensitive bird species.

## **5. Herbicide Use**

Herbicide use within the flood control channel shall be restricted to the use of Glyphosate AquaNeat™ herbicide for the elimination of non-native and invasive vegetation for purposes of habitat restoration and flood control. The environmental resource specialist shall conduct a survey of the project site each day prior to commencement of vegetation removal and eradication activity involving the use of herbicide to determine whether any native vegetation is present. Native vegetation shall be clearly delineated on the project site with fencing or survey flags and protected. In the event that non-native or invasive vegetation to be removed or eradicated is located in close proximity to native riparian vegetation or surface water, the applicant shall either: (a) remove non-native or invasive vegetation by hand (*Arundo donax* shall be cut to a height of 6 inches or less, and the stumps painted with the approved herbicide), or (b) utilize a plastic sheet/barrier to shield native vegetation or surface water from any potential overspray that may occur during use of herbicide. In no instance shall herbicide application occur if wind speeds on site are greater than 5 mph or 48 hours prior to predicted rain. In the event that rain does occur, herbicide application shall not resume again until 72 hours after rain.

## **6. Monitoring Reports**

- A. The applicant shall submit an annual post-maintenance assessment summarizing the maintenance practices, timing of implementation, and whether any sensitive species were observed and any measures taken to avoid or mitigate disturbance.
- B. Proposed changes to the project may require a permit amendment or new permit. Any proposed changes to the approved program shall be reported to the Executive Director. No change to the program shall occur without a Commission-approved amendment to the permit unless the Executive Director determines that no such amendment is required.

**7. Duration of Permit**

- A. This coastal development permit (CDP 5-09-082) is valid for five (5) years from the date of permit approval, after which time the permit shall expire. Except as provided in Public Resources Code Section 30610 and applicable regulations, and as specifically provided in this condition, any future development as defined in PRC section 30106, including but not limited to, maintenance activities beyond the expiration date of this permit, shall require an amendment to 5-09-082 from the California Coastal Commission or shall require an additional coastal development permit from the California Coastal Commission.
- B. This coastal development permit does not authorize any desilting/dredging, breaching, or sediment disposal activities. Any desilting/dredging, breaching, or sediment disposal activities will require an amendment to this permit or the issuance of a new coastal development permit.

**8. Conformance with the Requirements of the Resource Agencies**

The permittee shall comply with all permit requirements and mitigation measures of the California Department of Fish and Game, California State Water Quality Control Board, Regional Water Quality Control Boards (Santa Ana and San Diego), U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality, the marine environment, and sensitive species. Any change in the approved project, which is required by the above-stated agencies, shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

**IV. FINDINGS AND DECLARATIONS:**

The Commission hereby finds and declares:

**A. Project Description and Location**

Location

The project site is the approximately 1.5 mile portion of Reach 1 of the Santa Ana River flood control channel within the coastal zone beginning from the mouth of the Santa Ana River (Pacific Ocean) and ending at Hamilton Avenue in the City of Huntington Beach (Exhibits 1-3). Public access is available along the entire length of the project site via an existing bicycle/pedestrian path located adjacent to and north of the top bank of the Santa Ana River. The Reach 1 channel is a trapezoidal channel with rip rap protection on 2:1 slopes, the base width varies 365 feet to 450 feet and levee heights vary from 15 feet to 22 feet. The Santa Ana River is designated as a “large open space and conservation/scenic corridor” in the Orange County General Plan. The proposed maintenance activities will occur within the channel of the Santa Ana River. The river channel is within the Commission’s original permit jurisdiction.

### Proposed Project

The proposed project is the implementation of a long-term routine maintenance plan for the portion of the Santa Ana River within the coastal zone (approximately 1.5 miles of flood channel). Maintenance activities proposed within the channel bed include:

- selective removal and/or herbicide treatment of non-native vegetation (i.e., arundo and castorbean),
- vegetation control, annual removal/cutting of woody vegetation (i.e., willows and mulefat) with mower/dozer,
- periodic inspection of the improved channel and floodways to ensure capacity flows and gauge sediment deposition,
- periodic repair and cleaning of debris basins, check dams as necessary
- periodic repair of related hardscape structures (paving system, walls, fences, barriers, planters, bollards, retaining walls, signage, lighting systems) as necessary,
- removal/repair of graffiti and vandalism as necessary

### Permit Duration

The applicant requests that the coastal development permit (CDP) be granted in perpetuity. The Commission cannot grant such an open-ended approval. Site conditions and practices must be periodically reviewed to ensure that maintenance activities are in compliance with the Chapter Three policies of the Coastal Act. Substantive changes must come back to the Commission for review as an amendment or a subsequent permit. Therefore, the Commission imposes **Special Condition #7**, which limits the CDP to a five (5) year duration period from the date the permit is approved by the Commission. Any changes to the CDP would require approval by the Executive Director. A request for an extension of time must return to the Commission for review and approval. This is also consistent with the timing of the DFG Streambed Alteration Agreement, which limits the term of approval to five (5) years.

### Permit History

The Commission reviewed and provided a federal consistency determination for the construction of the original Lower Santa Ana River Mainstem Project (SARP) flood control project by the US Army Corps of Engineers (ACOE) in 1988 under CD-029-88. The project was the construction of a trapezoidal channel with rip rap protection and a soft-bottom within Reach 1 (Pacific Ocean to Fairview Channel and a rectangular channel with vertical concrete walls and a soft-bottom within Reach 2 (Fairview Channel to 405 FWY, approx 2.1 miles). Impacts from construction of the original flood control project and adverse impacts which would result due to future maintenance of the channel were addressed by ACOE at that time. Mitigation for the permanent loss of habitat due to the project's construction included restoration of the 92-acre Santa Ana River salt marsh, restoration of Victoria Pond, and acquisition and/or preservation of 1,100 acres of floodplain below Prado Dam and temporary establishment of wetland and riparian habitat within the river channel between maintenance episodes.

After completion of the project and final dredging/excavation to design grade, ACOE turned over ownership of Reach 1 and Reach 2 to the County of Orange. Prior to this, ACOE received approval through the federal consistency review process for the final dredging to design grade activities of Reach 1 under ND-111-00 in 2001 and Reach 2 under ND-026-02 in 2002. The authorized maintenance activities for Reach 1 of the Santa Ana River included removal of

vegetation and excavation of 460,000 cubic yards of material, with disposal of between 20,000 and 40,000 cubic yards of sand on the California least tern nesting island within the Santa Ana River salt marsh, the remaining suitable sediments deposited at the Newport Beach groin field (the -15 to -30 foot MLLW nearshore zone off Newport Beach, or Surfside/Sunset Beaches. Though outside of the coastal zone, Commission authorization (federal consistency determination) for the maintenance activities for Reach 2 was required due to project impacts within the coastal zone. Maintenance activities for Reach 2 included removal of vegetation and excavation of 40,000 cubic yards. The work authorized by both permits occurred concurrently in 2004. However, in between the years from project construction (1991 – 1994) and final dredging to design grade (2004), wetland and riparian habitat re-established within Reach 1 and Reach 2 of the Santa Ana River. In addition to the original habitat restoration required for the construction of SARP, the ACOE further agreed to provide an additional 17 acres of riparian habitat through the removal of invasive species and habitat creation at Fairview Park to compensate for the additional loss of habitat. The applicant (County of Orange) has provided proof that all habitat mitigation for both the construction and future maintenance of the SARP project is in place.

**B. Marine Resources and Water Quality**

Section 30230 of the Coastal Act states:

*Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Use of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states in part:

*The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Section 30236 of the Coastal Act states:

*Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Section 30240 of the Coastal Acts states:

*(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*



*(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

### Flood Control

The proposed project provides long-term maintenance of the channelized Santa Ana River flood control channel with the primary purpose of ensuring flood protection.

The Commission finds that the continued maintenance of the flood control channel and therefore, continued alteration of the previously channelized streambed, as proposed by this project, is consistent with Section 30236 of the Coastal Act when required for flood control projects to protect public safety and existing development within the flood plain. The applicant has provided proof that potential adverse effects have been mitigated to the maximum extent feasible. The Commission notes that maintenance activities to ensure flood capacity such as vegetation removal within the river channel would result in adverse impacts to riparian and wetland habitat; however, mitigation for continued maintenance impacts was provided by the ACOE prior to their turning over ownership of Reach 1 and Reach 2 to the County of Orange. At the time, the Commission concurred that the mitigation addressed future impacts caused by on-going maintenance.

As previously discussed, ACOE provided mitigation for both permanent loss of habitat and for temporary impacts due to the project's construction. Mitigation included restoration of the 92-acre Santa Ana River salt marsh, restoration of Victoria Pond, and acquisition and/or preservation of 1,100 acres of floodplain below Prado Dam and provisions allowing temporary establishment of wetland and riparian habitat within the Santa Ana River channel between maintenance episodes. Furthermore, ACOE provided funding to the City of Costa Mesa to provide an additional 17 acres of riparian habitat through the removal of invasive species and habitat creation at Fairview Park to compensate for the additional loss of habitat caused by final design grade dredging impacts.

### Environmentally Sensitive Habitat Areas

Part of the original SARP mitigation to compensate for the adverse impacts to wetland and riparian habitats were provisions to allow temporary establishment of native wetland and riparian habitat (i.e., cattails and sedges) vegetation within the river channel with annual mowing during the dormant season and annual removal of woody vegetation (i.e., willows, mulefat and other large shrubs and trees) due to their constraints on flood capacity and water conveyance. Therefore, to ensure that any potential adverse effects to sensitive species that may be using the habitat to forage or nest are minimized during actual maintenance activities, the applicant proposes and **Special Condition #4** requires that maintenance activities occur outside of the bird nesting season (March 1 to August 15) and that a qualified biologist or environmental resource specialist conduct a survey of the project site each day prior to commencement of any maintenance activities to determine whether any sensitive wildlife species are present. In the event that any sensitive wildlife species (e.g., species listed on state or federal endangered/threatened species lists) are present on the project site, including but not limited to California least tern, western snowy plover, Belding's savannah sparrow exhibit reproductive or nesting behavior, the environmental specialist shall require the applicant to cease work, and shall immediately notify the Executive Director and local resource agencies. Project activities shall resume only upon written approval of the Executive Director. The monitor(s) shall require the applicant to cease work should any breach in

permit compliance occur or if any unforeseen sensitive habitat issues arise. The monitor(s) shall immediately notify the Executive Director of activities outside of the scope of this coastal development permit. If significant impacts or damage occur to sensitive wildlife species, the applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit.

However, the Commission also finds that the marine, riparian and wetland habitats on site and in the vicinity are subject to potential changes over time as new species migrate into the area or as potential unidentified impacts from the proposed maintenance activities may be discovered over time. Therefore, in order to ensure that any potential changed circumstances which may be discovered at some future point in time, such as new information regarding sensitive habitat and wildlife resources on site are considered, **Special Condition #7** specifically limits the duration of all activities approved by this permit to a period of no more than five (5) years from the date of Commission action, after which time this permit shall expire unless an extension is granted by the Commission.

### Water Quality

The proposed project may involve some use of heavy machinery within the river flood control channel. Machinery may have oils, greases, heavy metals, and other vehicular fluids on the body of the machine. The applicant proposed best management practices (BMPs) which include measures designed to minimize debris discharged into coastal waters including BMPs such as off-site cleaning and maintenance of equipment, construction staging areas outside of all drainage inverts and/or banks, and not permitting toxic and hazardous materials associated with equipment maintenance activities within the channel. In addition to the proposed BMPs, the Commission imposes additional BMP's in **Special Condition #1** designed to prevent adverse impacts to water quality and coastal waters.

As part of the proposed flood control channel maintenance activities, the applicant proposes to control invasive plant species in the river channel through the use of herbicide (chemical) treatment, by hand methods or by mechanical methods (mowing and weed whipping). Section 30231 of the Coastal Act aims to protect the biological productivity and quality of coastal waters in rivers and streams to maintain optimum populations of marine organisms and for the protection of human health.

The proposed annual maintenance activities include the application of *AquaNeat*<sup>™</sup> an aquatic herbicide to existing non-native vegetation within the Santa Ana River channel during spring/summer months. The active ingredient in *AquaNeat*<sup>™</sup> is glyphosate. Individual plants and clumps of plants are sprayed with hand-held spray wand. Only vegetative material is sprayed; herbicide is not applied to open water. The purpose of the herbicide application is to prevent invasive plants from crowding out native non-woody wetland vegetation growth within the channel. Glyphosate herbicide is currently registered by the United States Environmental Protection Agency (EPA) as a non-selective herbicide of relatively low toxicity suitable for use in wetland and riparian areas. The Glyphosate Environmental Assessment Report by the EPA dated September 1993 states:

***Glyphosate is of relatively low oral and dermal acute toxicity. It has been placed in Toxicity Category III for these effects (Toxicity Category I indicates the highest degree of acute toxicity, and Category IV the lowest)...Based on current data, EPA, has determined that the effects of glyphosate on birds, mammals, fish, and invertebrates are minimal....Glyphosate***

***adsorbs strongly to soil and is not expected to move vertically below the six inch soil layer...Glyphosate is readily degraded by soil microbes...However, glyphosate does have the potential to contaminate surface waters due to its aquatic use patterns...If glyphosate reached surface water, it would not be broken down readily by water or sunlight.***

Based on the EPA report, the half-life of Glyphosate herbicide in water varies from 35 to 65 days therefore, there is a low potential for the compound to build up in the tissues of aquatic invertebrates or other aquatic organisms. The primary water quality impact is the potential for elevated levels of herbicide (and its active ingredient, glyphosate) in the water of a drainage course. Herbicides may be introduced to the drainage water by three mechanisms: (1) overspray that deposits herbicide directly into open water; (2) overspray that deposits herbicide on dry substrates where it may be dissolved by flowing water at a later time; and (3) herbicide dripping from a plant leaf onto water below due to excessive application.

In previous permit actions, the Commission has allowed for the use of Glyphosate herbicides within sensitive wetland and riparian areas when it was found that use of an herbicide was necessary for habitat restoration and that there were no feasible alternatives that would result in fewer adverse effects to the habitat value of the site. At this time, however, the Commission does not have any follow-up reports providing evidence of the herbicide's minimal impacts on ESHA from previously approved Commission projects. Therefore, the Commission notes Glyphosate herbicide, although determined by the EPA to be low in toxicity, is still toxic and may still result in some adverse effects to wildlife when used in sensitive habitat areas such as the subject site. Although levels are considered relatively low and break down over a relatively short period of time, they are still present on a temporary basis within the river channel.

In the case of the proposed project, the applicant proposes to apply the Glyphosate herbicide (*AquaNeat<sup>TM</sup>*) for two or three episodes outside of the bird nesting season. The applicant has indicated that the herbicide would only be applied to patches of non-native invasive vegetation (i.e., arundo and castorbean). As invasives decline and natives recruit, herbicide application would drop to only one episode per year to keep invasives under control. The purpose of the herbicide spraying is to decrease the amount invasive vegetation present in the channel that interferes with maintenance of the channel's flood capacity. **Special Condition #5** provides specifications for the use of the herbicide and requires an environmental resource specialist on site to conduct a survey of the project site each day prior to commencement of vegetation removal and eradication activity involving the use of herbicide to determine whether any native vegetation is present. Native vegetation shall be clearly delineated on the project site with fencing or survey flags and protected from any potential overspray of the herbicide.

#### Future Maintenance Dredging

Additionally, as part of the maintenance requirements developed under the original ACOE approvals (and federal consistency with the Coastal Zone Management Act and CA Coastal Act) for the channel design, an upper grade limit was established to identify the sediment removal required from the channel to maintain the design flood protection. Sediment would be allowed to accumulate to the upper grade limit of 660,000 cubic yards (based on the average annual sediment deposition of 37,000 cubic yards/year); therefore, on the long-term average, routine maintenance dredging for Reach 1 and Reach 2 is anticipated to be required every 18 years. Actual frequency may vary, depending on storm events and other factors that may affect deposition and scour.

As the upper grade limit is for both Reach 1 and Reach 2 of the Santa Ana River, the applicant anticipates dredging both reaches simultaneously. Future maintenance dredging of the 1.5 mile portion of Reach 1 which is within the coastal zone would require an amendment to this coastal development permit or a new coastal development permit. Dredging activities in Reach 2 (outside the coastal zone) would not require a coastal development permit, but would require Commission review under the federal consistency review process as those activities would have an impact within the coastal zone. However, a coastal development permit would be required for beach deposition/disposal of dredge sediments from either Reach 1 or Reach 2.

Previous Santa Ana River dredge sediments from the 2006 ACOE dredging were determined to be adequate for beach deposition/replenishment. However, as dredging is anticipated to be required approximately every 18 years, the Commission notes that water and sediment quality may change over time due to changed conditions resulting from new upstream development or potential new non-point source pollution impacts. Continued testing of excavated material to determine suitability for beach deposition is necessary to minimize potential adverse impacts to the marine environment. Therefore, dredging and sediment disposal in the coastal zone are not included in this 5-year routine maintenance program. Any future dredging/sediment disposal would require an amendment to this coastal development permit or a new coastal development permit. Therefore, the Commission finds that the proposed project, as conditioned, will serve to minimize effects to existing habitat and wildlife resources on site while meeting necessary flood control requirements and is consistent with Sections 30230, 30231, 30236, and 30240 of the Coastal Act.

### **C. Coastal Hazards and Shoreline Processes**

Section 30253 of the Coastal Act states in part that new development shall:

- (1) *Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
- (2) *Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Section 30253 of the Coastal Act mandates that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. The purpose of the proposed project is to maintain the floodwater carrying capacity in the Santa Ana River to reduce the likelihood of flood damage to adjacent residential areas. The annual removal of vegetation in the channel removes channel obstructions and ensures that velocities are maintained.

Additionally, the proposed development is located in an area of the coastal zone which is subject to potential risks due erosion, flooding and wave uprush hazards. The Commission therefore imposes **Special Condition #3** requiring the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant would acknowledge and agree that the site may be subject to hazards from waves, storm waves, flooding and sea level rise; assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development and to unconditionally waive any claim of damage or liability against the Commission for injury or damage from such hazards. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30253.

**D. Public Access/Recreation**

Section 30210 of the Coastal Act states:

*In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Section 30211 of the Coastal Act states:

*Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30220 of the Coastal Act states:

*Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

Section 30221 of the Coastal Act states:

*Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

The proposed project is located within Reach 1 of the Santa Ana River in the coastal zone. Recreational uses include fishing, bird watching, biking and pedestrian uses along the Santa Ana River bikeway/trail system accessible from maintenance and access roads along the river and at PCH at the mouth of the river to the Pacific Ocean. Closure of the bikeway/trail system is not anticipated to be required during routine maintenance activities.

**Staging**

The applicant proposes construction staging area located on the western bank outside of all drainage inverts and/or banks. However, a detailed staging plan showing the exact location of the maintenance/storage area is not provided. **Special Condition #2** requires the applicant provide a Construction Staging Plan prior to issuance of the permit.

The Commission finds that the proposed development, as conditioned, is in conformity with public access and promotion of public recreational opportunities policies of the Coastal Act.

**E. Local Coastal Program**

Coastal Act section 30604(a) states that, prior to certification of a local coastal program ("LCP"), a coastal development permit can only be issued upon a finding that the proposed development is in conformity with Chapter 3 of the Act and that the permitted development will not prejudice the ability of the local government to prepare an LCP that is in conformity with Chapter 3.

The upcoast section of the Santa Ana River Reach 1 flood control channel borders the City of Huntington Beach and the City of Newport Beach on the downcoast. A Local Coastal Plan (LCP) for the City of Huntington Beach was effectively certified in March 1985. A Land Use Plan (LUP) for the City of Newport Beach was effectively certified on May 19, 1982 and updated on October 2005 and on October 2009. As conditioned, the proposed development is consistent with Chapter 3 of the Coastal Act, with the certified LCP for the City of Huntington Beach and with the certified LUP for the City of Newport Beach. Approval of the project, as conditioned, will not prejudice the ability of the City of Newport Beach to prepare an LCP that is in conformity with the provisions of Chapter 3 of the Coastal Act. Furthermore, the proposed development occurs within an area of the Commission's original permit jurisdiction, consequently, the standard of review is the Coastal Act and the City of Huntington Beach LCP and the City of Newport Beach LUP may be used only as guidance.

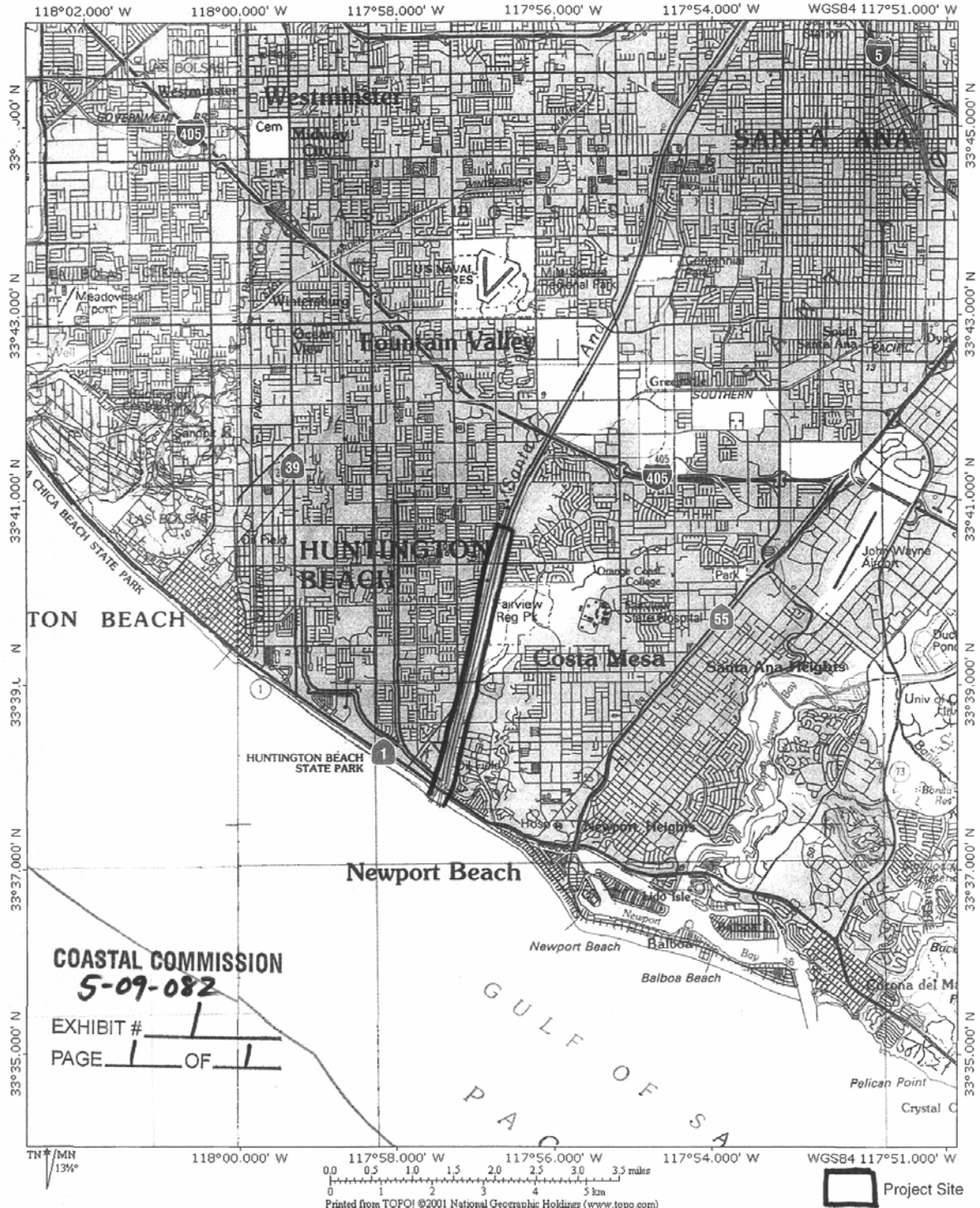
**F. Consistency with the California Environmental Quality Act (CEQA)**

Section 13096 of Title 14 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The U.S. Army Corps of Engineers (ACOE) is the lead agency for purposes of National Environmental Policy Act (NEPA) compliance and Orange County is the lead agency for the purposes of CEQA compliance. Overall environmental impacts associated with the Santa Ana River Mainstem Project (SARP) were evaluated by ACOE in three (3) Final Supplemental Environmental Impact Statements (FSEISs) finalized in 1980, 1985, and 1988. Analysis of the impacts associated with the lower Santa Ana River improvements (Reach 1 and Reach 2) were included in the 1988 FSEIS and Phase II General Design Memorandum (GDM) which was adopted by Orange County (the local sponsor) as an Environmental Impact Report (EIR). Four (4) Supplemental Environmental Assessments (SEAs), a March 2001 Final SEA, a March 2002 Draft SEA, a July 2003 Final SEA, and a January 2004 Final SEA were included as Addendum to the 1988 Phase II GDM/SEIS/EIR. The SEAs were prepared for this project pursuant to the provisions of both NEPA and CEQA and serve as an Addendum to the EIR for CEQA purposes. Mitigation measures included mitigation measures for air quality, water quality, hydrology, recreation, and biological resources. The SEAs also addressed impacts that would result from the County's future maintenance of the channel (ACOE turned over ownership of Reach 1 and Reach 2 to the County of Orange after project completion).

The proposed project is located in an urban area. Infrastructure necessary to serve the project exists in the area (i.e., maintenance access roads). The proposed project has been conditioned in order to be found consistent with the resource protection policies of the Coastal Act. As conditioned, the proposed project (i.e., Long-Term Operations & Maintenance) has been found consistent with the public access, water quality, and habitat protection policies of the Coastal Act. Mitigation measures to minimize adverse effects include: special conditions related to (1) Operations and Maintenance Responsibilities, (2) Staging Area, (3) Assumption of Risk, Waiver of Liability and Indemnity, (4) Timing and Operational Constraints, (5) Herbicide Use, (6) Monitoring Responsibilities, (7) Duration of Permit, and (8) Conformance with the Requirements of the Resource Agencies. As conditioned, there are no feasible alternatives or feasible mitigation

measures available, beyond those required, which would substantially lessen any significant adverse effect which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified effects, is the least environmentally damaging feasible alternative and is consistent with the requirements of the Coastal Act and CEQA.



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**RBF CONSULTING**  
  
 APPROXIMATE  
 5/10/07 JN 10-103795-13981

Project Site  
 SANTA ANA RIVER (REACHES 1 AND 2)  
 LONG-TERM MAINTENANCE  
**Site Vicinity**  
 Exhibit 2





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**Legend**  
Project Boundary  
Coastal Zone Boundary



Source: Eagle Aerial Imaging  
LSA and Associates

SANTA ANA RIVER (REACHES 1 & 2)  
LONG-TERM MAINTENANCE  
PROJECT SITE

EXHIBIT 3A

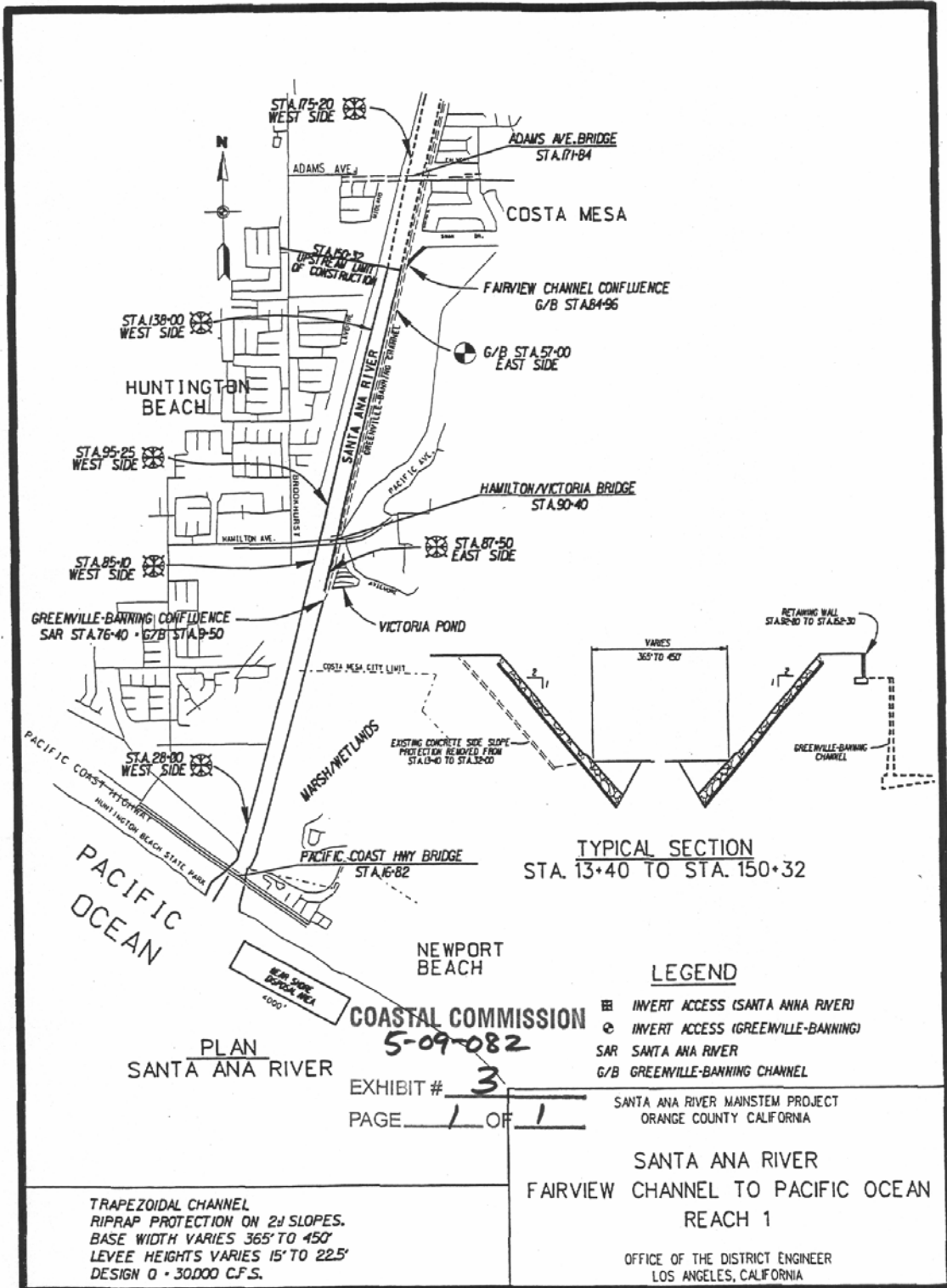


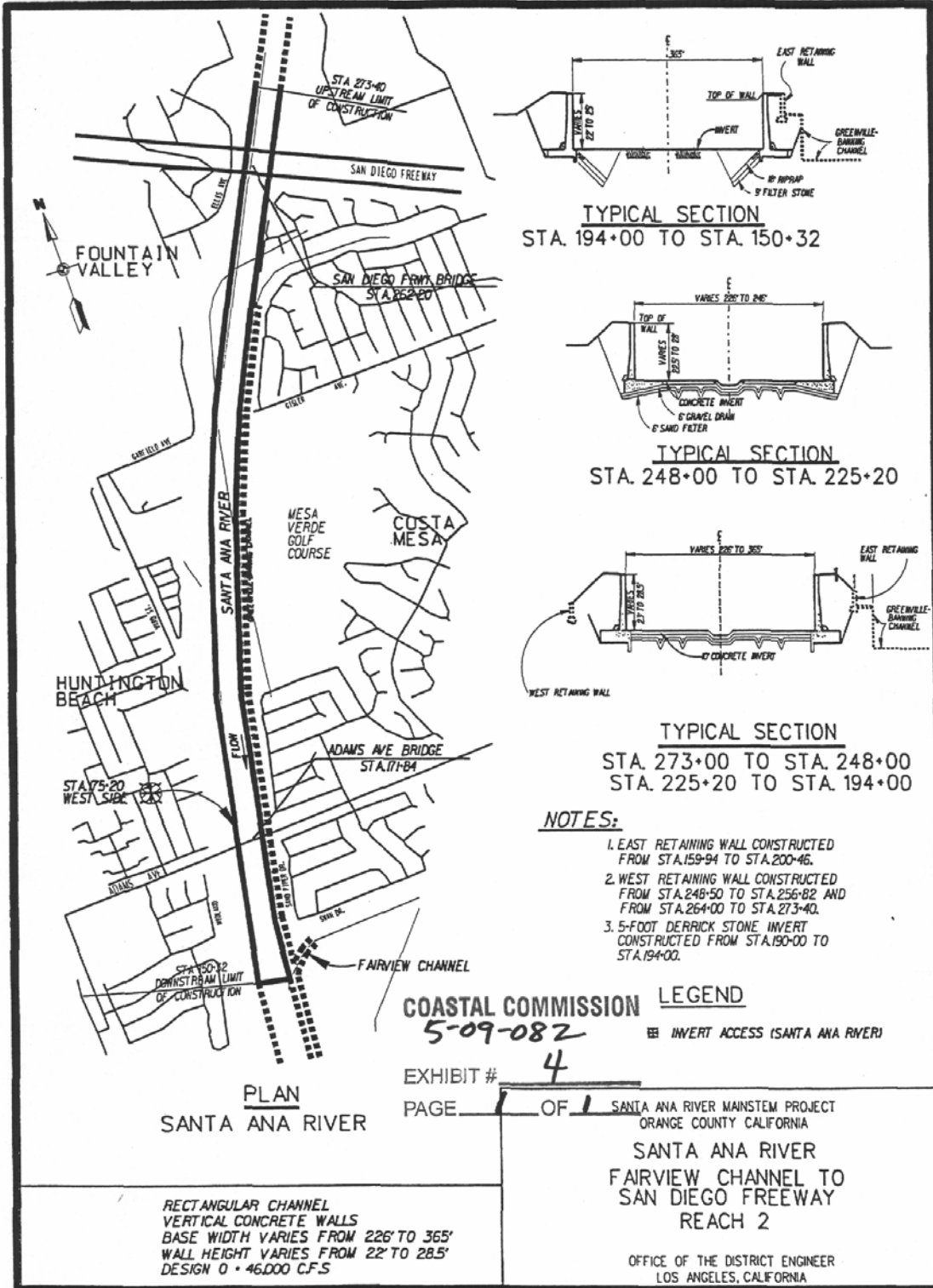
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Table 1. LOWER SANTA ANA RIVER - DESCRIPTION FOR OPERATION & MAINTENANCE

REACH	CHANNEL TYPE	UP STREAM LIMIT STATION & STREET	DOWN STREAM LIMIT STATION & STREET	DESCRIPTION OF MAINTENANCE ACTIVITIES
Reach 1	Trapezoidal Riprap	Sta. 152+32 Fairview Channel	Sta. 7+60 Pacific Ocean	<p><b>URATTI CHANNEL INVERT, LEVEES &amp; ROADWAYS</b> - Maintenance activities include removal of debris, objectionable growth, rocks, and waste materials from the invert. Excess material that will not move readily with low flows must be removed. Measures must be taken to inhibit objectionable growth by approved chemical or mechanical means. Full access under all weather conditions must be maintained for necessary operation and maintenance equipment. This includes erosion control to prevent the formation of rills which might interfere with vehicular access and measures to remove debris and loads which tend to accumulate on the roadway.</p> <p>Additional maintenance activities include: filling and compacting to restore flow and grade; eradication deep root vegetation; aspen path removal; exterminating burrowing animals; re-tying areas to drain; and sealing slopes for erosion control.</p> <p><b>STONEWORK</b> - Vegetation control will be required for all areas of stonework to prevent displacement of the stone by root growth. Maintenance activities will consist of replacing deteriorated or displaced stone; scaling cracked grouted stonework; and possibly stabilize restorable.</p> <p><b>SIDE DRAIN</b> - Hedges must be kept neat free and unobstructed. Other activities may consist of pipe replacement; pipe re-casting; concrete invert repaving; gate re-casting; re-casting concrete pipe joints and pipe-to-structure junctions; gate bifurcation and removal of gate seals; unobstructed drain restoration.</p> <p><b>TRASH JACKS</b> - Remove debris to prevent blockage of inlet structure. Repair or replace racks.</p> <p><b>FENCING</b> - Activities include painting and re-coating; and or replacement.</p> <p><b>BRIDGE</b> - Maintenance activities can include mowcutting and patching rough areas of fills or pier extensions; resealing expansion joints; and highlighting and securing fasteners, supports, and structures.</p> <p><b>DITCHES/SURFACING</b> - Surface from roadways and surficial drains access ramps must be maintained to permit passage of vehicles at all times for operation, maintenance, and repair. Depositions must be repaired by filling to grade or by removal and replacement of subgrade. Side drain enclosures must be kept free of debris. Other activities include resealing vegetation, patching, re-casting, re-coating or installing seals to control drainage, and replacement of deteriorated surfacing with concrete to control chronic conditions.</p> <p><b>LANDSCAPING</b> - Required maintenance for landscaping including spraying sprinklers, mow cutting, watering, and pruning trees and shrubs, etc.</p>

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