

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400



F 3b

STAFF RECOMMENDATION
ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-043-07
Staff:	LJS-SF
File Date:	7/12/2007
60 th Day:	9/10/2007
75 th Day:	9/25/2007
Extended to:	12/31/2007
Commission Meeting:	12/14/2007

FEDERAL AGENCY: **U.S. Army Corps of Engineers**

PROJECT LOCATION: San Luis Rey River, City of Oceanside, San Diego County
(Exhibits 1-3)

PROJECT DESCRIPTION: Vegetation and sediment management within the seven-mile-long
San Luis Rey River flood control project area

SUBSTANTIVE FILE DOCUMENTS: See Pages 23 and 24

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers has submitted a consistency determination to implement a vegetation and sediment management program for the San Luis Rey River flood control project area, located along the lower seven miles of the river between College Boulevard and the Pacific Ocean in the City of Oceanside, San Diego County. The lower 1.3 miles of the flood control channel are located within the coastal zone. The current flood control project, constructed between 1988 and 2000, encompasses approximately 585 acres within a flood control channel approximately 400 feet wide and includes double- and single-levee reaches, a variable-width flow conveyance zone, in-channel and off-channel mitigation sites, and six detention ponds located outside of the flood control channel. However, since initiation of project construction, and especially since completion of the flood control levees, the growth of riparian vegetation within the 400-foot-wide flood control channel has been substantial and this environmentally sensitive habitat now supports populations of federal and state listed species, including the least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher. As a result, the Corps is proposing to modify how it manages vegetation and sediment within the flood control channel.

The proposed plan is designed to convey 71,200 cubic feet per second (cfs) of flow through the flood control channel (approximately equal to a 150-year flood event), down 20 percent from the 89,000 cfs flow designed into the authorized and constructed flood control project. The channel is currently unable to convey either the authorized flow or the proposed lower flow due to the growth of riparian vegetation within the channel since completion of the project in 2000. The proposed project includes three types of vegetation management: annual vegetation removal, vegetation removed every ten years, and unmaintained vegetation areas. A flow conveyance zone ranging in width from 150 to 325 feet would be maintained clear of vegetation. The non-native and highly invasive giant reed (*Arundo donax*) would be removed from all locations within the flood control channel using spraying and cutting. Approximately 260,000 cubic yards of sediment would be excavated from the flood control channel over a 25-year period; materials suitable for beach replenishment would be transported to Oceanside area beaches. After implementation of each of the three phases of the vegetation and sediment management program, permanent operation and maintenance of the flood control project would be turned over to the City of Oceanside.

The proposed program would result in the initial loss of approximately 233 acres of riparian vegetation within the seven-mile-long flood control channel; annual vegetation management to maintain the flow conveyance zone would affect an approximately 180 acre-area within the initial 233 acres that would be cleared. The Corps states that mitigation for riparian habitat losses is addressed by the fact that the modified project will result in reduced impacts when compared to the Congressionally-authorized project, and the fact that the non-discretionary terms and conditions in the 2006 U.S. Fish and Wildlife Service *Biological Opinion* will reduce impacts to habitat and listed species to a non-significant level. Nevertheless, the project would result in the loss of approximately 233 acres of valuable riparian habitat; the proposed project does not include adequate mitigation for this habitat loss. As a result, the project would create adverse impacts on coastal resources due to the direct and unmitigated loss of up to 13 acres of

riparian habitat within the coastal zone in Reach 1 of the flood control channel, and due to the additional loss of riparian habitat adjacent to and upstream of the coastal zone within the flood control channel. This latter development would adversely affect populations of listed species that spend part of their time within the coastal zone.

The Commission has consistently required of both public agencies and private entities that unavoidable losses of riparian and wetland habitats be fully mitigated to ensure no net loss of those habitats within the coastal zone, and to ensure that projects which straddle the coastal zone boundary do not create significant adverse spillover effects on coastal zone resources. In this instance, the proposed vegetation management program and its anticipated loss of approximately one-half of the existing riparian habitat within the San Luis Rey River flood control channel will adversely affect coastal zone resources unless the habitat loss is adequately mitigated. For these reasons, in order for the proposed vegetation and sediment management program to be found consistent with the environmentally sensitive habitat policies of the California Coastal Management Program (CCMP), the program would need to be modified as follows:

The Corps of Engineers shall modify the proposed vegetation management program to include a plan for riparian/wetland habitat acquisition, enhancement, restoration, and/or creation within the San Luis Rey River watershed, or other watersheds in northern San Diego County which are suitable for least Bell's vireo and southwestern willow flycatcher habitat. The goal of this habitat replacement plan is to ensure replacement of the planned removal of 233 acres of riparian habitat in the San Luis Rey River flood control channel with an equivalent acreage and/or biological value of vireo/flycatcher habitat. To achieve this goal, the habitat replacement plan could include, but would not be limited to, the following elements: control/eradication of giant reed (Arundo donax) within riparian corridors, which would then yield suitable vireo/flycatcher habitat; enhancement and/or restoration of existing vireo/flycatcher habitat on public or private lands with appropriate legal mechanisms to ensure habitat protection in perpetuity; creation of new vireo/flycatcher habitat on public or private lands with appropriate legal mechanisms to ensure habitat protection in perpetuity; purchase of lands for the purpose of enhancing/restoring /creating vireo/flycatcher habitat; funding by the Corps, through Congressional appropriations, of vireo and flycatcher recovery efforts by the U.S. Fish and Wildlife Service within the San Luis Rey River watershed or northern San Diego County; provisions, including funding, for monitoring, maintenance, and remediation in perpetuity of all vireo/flycatcher habitat enhanced, restored, or created as a result of this plan. The Corps shall submit a habitat replacement plan to the Commission for its review and concurrence prior to the start of construction of the proposed flood control channel vegetation and sediment management program.

The proposed project is an allowable use under Section 30236 of the Coastal Act as a "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." However without the mitigation represented by the above condition, the project is not consistent with the requirement of Section 30236 that "substantial alterations of rivers ... shall incorporate the best mitigation measures feasible," or with the requirement of Section 30231 that the biological

productivity of coastal waters and streams be maintained and, where feasible, restored through ... among other means, ... maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.” The condition is also required to achieve consistency with the requirements of Section 30240 that “Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values” and that “Development in areas adjacent to environmentally sensitive habitat areas ... shall be sited and designed to ... be compatible with the continuance of those habitat and recreation areas.” A strict reading of Section 30240 would appear to prohibit the proposed removal of environmentally sensitive riparian habitat within the San Luis Rey River flood control channel. However, based on the general legal principle that “the specific outweighs the general,” the more specific allowable use provision in Section 30236 regarding flood control projects that incorporate the best mitigation measures feasible provides a basis for Commission concurrence. If modified in accordance with the conditional concurrence, the proposed program would be consistent with the environmentally sensitive habitat policies of the CCMP (Coastal Act Sections 30231, 30233, 30236, and 30240).

The proposed sediment management program for the San Luis Rey flood control project will lead to the excavation and removal of approximately 260,000 cubic yards of sediment from the channel over a 25-year period. However, the Corps’ consistency determination states that sediment removed from the flood control channel will only be “considered” for disposal at Oceanside beaches, along with other potential disposal sites (e.g., landfills, commercial and industrial applications). If future excavated sediments from the San Luis Rey flood control channel are physically and chemically suitable for beach replenishment, they must be used for such purposes on Oceanside area beaches. For these reasons, in order for the proposed vegetation and sediment management program to be found consistent with the sand supply policy of the CCMP, the program would need to be modified as follows:

The Corps of Engineers shall modify the project description to state that all sediment removed from the flood control channel during Phase 2 and Phase 3 of project implementation, and during subsequent operation and maintenance actions by the Corps and/or the City of Oceanside, shall be transported to and placed on Oceanside area beaches, provided that the excavated sediments are physically and chemically suitable for beach replenishment. The Corps and/or the City of Oceanside shall submit sediment suitability analysis and beach replenishment plans to the Commission’s Executive Director no later than 45 days prior to the start of any sediment removal operations in the flood control channel.

If modified in accordance with the Commission’s conditional concurrence, the proposed program would be consistent with the sand supply policy of the CCMP (Coastal Act Section 30233(b)).

STAFF SUMMARY AND RECOMMENDATION

I. STAFF SUMMARY.

A. Project Background. The Corps of Engineers proposes to implement a vegetation and sediment management program for the San Luis Rey River flood control project area, located

along the lower seven miles of the river between College Boulevard and the Pacific Ocean in the city of Oceanside, San Diego County (**Exhibits 1-3**). The lower 1.3 miles of the flood control channel is located within the coastal zone (**Exhibit 4**). The current flood control project encompasses approximately 585 acres within a flood control channel approximately 400 feet wide and includes double- and single-levee reaches, a variable-width flow conveyance zone, in-channel and off-channel mitigation sites, and six detention ponds located outside of the flood control channel.

A consistency determination submitted by the Corps of Engineers in 1981 for the original flood control project was “deemed concurred” with the California Coastal Management Program that year due to the Commission not taking action on the consistency determination within the required statutory time limit.¹ The project called for an approximately 100-foot-wide flood control channel with no provisions for riparian habitat within the channel. Subsequent to that concurrence, the Corps modified the project to widen the flood control channel to approximately 400 feet, in part to provide areas of riparian vegetation (between the project levees) to support the federally endangered least Bell’s vireo. Construction of the flood control project took place between 1988 and 2000, and the Commission has subsequently concurred with negative determinations for minor project modifications (ND-053-88, ND-020-89, and ND-028-89) and for emergency vegetation management (ND-005-06).

However, since initiation of project construction, and especially since completion of the flood control levees, the growth of riparian vegetation within the 400-foot-wide flood control channel has been substantial and this environmentally sensitive habitat now supports populations of federal and state listed species, including the least Bell’s vireo, southwestern willow flycatcher, coastal California gnatcatcher, and southern California steelhead. As a result, the Corps is proposing to modify how it manages vegetation and sediment within the flood control channel. In its consistency determination the Corps reviews the project design and planning ramifications that arose from the growth of riparian habitat in the project area:

*. . . the [project Phase II] design specifications underwent changes due to a number of environmental concerns. These included listing of the least Bell’s vireo (*Vireo bellii pusillus*), which required the Corps to reevaluate all impacts that would result from the implementation of the authorized plan for the San Luis Rey River Flood Control Project as defined in the Phase I and Phase II General Design Memorandums (GDMs). In light of the listing, the Corps initiated formal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Federal Endangered Species Act (FESA) for its single levee plan recommended in the April 1984 Phase II GDM. As originally proposed, the single levee project was determined to likely jeopardize the vireo. Consequently, the project was revised to address impacts to occupied and suitable vireo habitat from project construction, operation, and maintenance.*

¹ A consistency determination was included within the project NEPA documents but the Commission staff was not informed of that inclusion until after the statutory time limit for Commission action on the consistency determination had passed. As a result, the Commission never reviewed or took action on the consistency determination for the original flood control project.

Following the Section 7 consultation and issuance of the 1987 Biological Opinion (USFWS, 1987), the Corps removed jeopardy for the vireo (by modifying the initial proposed action to incorporate the alternative identified in the Biological Opinion (BO)). In December 1987, the Los Angeles District of the Corps issued the Supplemental Phase II GDM. The Corps approved the memorandum (referred to as the Authorized Plan in the SEIS/SEIR) in March 1988 with an accompanying Supplemental Environmental Assessment (SEA) and Finding of No Significant Impact (FONSI).

Physical construction of the flood control project was initiated in 1988 in phases and was completed in 2000; however, the project is not officially complete until it is turned over to the City of Oceanside (City) to operation and maintain. Because of new Federally listed threatened or endangered species present or that may be present in the project area and designation of critical habitat for the vireo, the Corps re-initiated formal Section 7 consultation with the USFWS in October 2003 and completed the consultation with the USFWS issuing an amended Final BO on February 14, 2006 (with clarification letter dated May 23, 2006).

However, notwithstanding the aforementioned *Biological Opinion*, the Corps acknowledges in its consistency determination that designing the proposed vegetation and sediment management modifications to the flood control project has been challenging due to the need to balance the current project design specifications authorized by Congress, protection of private property, and protection of federally-listed species and their critical habitat:

The purposes of the operation and maintenance (O&M) of the San Luis Rey River Control Project is to provide and convey a minimum flow of 71,200 cubic feet per second (cfs), while at the same time addressing the environmental needs of the biological resources of the area of the proposed action. The two major actions necessary to convey a minimum flow of 71,200 cfs are vegetation and sediment management.

The vegetation and sediment management element of the flood control project operation and maintenance (O&M) plan required re-examination to address Endangered Species Action (ESA) concerns, specifically the designation of least Bell's vireo critical habitat, the presence of the endangered southwestern willow flycatcher and designation of its critical habitat within the project area. Proposed revisions (Proposed Action) to the O&M vegetation and sediment management portions of the project and the O&M plan, based on subsequent environmental and hydraulic (Appendix C) analysis, and extensive coordination with resource agencies, including the USFWS, were developed to maximize flood risk reduction while minimizing impacts to endangered species and their critical habitat.

The proposed action is consistent with Sections 30231, 30233 and 30236 of the Coastal Management Act. The proposed action, in the long run, would increase habitat levels for a number of endangered species and would improve designated critical habitat in comparison to the O&M plan authorized in 1988.

Since the initiation of construction of the flood control project, and especially since the completion of the levee components of the project, the growth of vegetation in the area of the flood control project including the area of the Proposed Action has been substantial.

Corresponding with this growth of vegetation, the number of vireo inhabiting the area has increased exponentially. As discussed above, the authorized operation and maintenance plan for the flood control project is being revised to avoid or further minimize effects to Federal and state special status listed species, such as vireo and flycatcher, and their listed critical habitats. The extent of the effects on federally threatened or endangered species is expected to correspond to the quantity and type of vegetation management, the timing of vegetation management, the location of the vegetation management, and the volume and timing of sediment management. Therefore, the significance criteria utilized during evaluation of the Proposed Action (for biological resources) is based largely on effects to Federal and state listed species or their critical habitat.

B. Project Description. The flood control project area is divided into four reaches (**Exhibits 2 and 3**):

- Reach 1 extends 2.2 miles from the Pacific Ocean to the former location of the Priory Road Bridge. (The coastal zone boundary is located approximately 1.3 miles upstream from the Pacific Ocean.)
- Reach 2 extends upstream for one mile to the Foussat Road Bridge.
- Reach 3 extends 2.1 miles upstream to the Douglas Drive Bridge.
- Reach 4 extends 1.7 miles to the College Boulevard Bridge.

The proposed management program will be carried out within approximately 457 acres of the flow conveyance zone extending through all four reaches. Riparian vegetation communities that would be affected by the proposed work include mature willow woodland, successional and emergent willow riparian, freshwater marsh, mulefat/willow scrub, and disturbed areas, primarily dominated by the highly-invasive non-native giant reed (*Arundo donax*). The proposed plan is designed to convey 71,200 cubic feet per second (cfs) of flow through the flood control channel (approximately equal to a 150-year flood event), a 20 percent reduction in the 89,000 cfs flow designed into the authorized and constructed flood control project. The channel is currently unable to convey either the authorized flow or the proposed lower flow due to the growth of riparian vegetation within the channel since completion of the project in 2000. Occupation of the existing riparian vegetation by federal and state listed threatened and endangered species has complicated efforts by federal, state, and local agencies to resolve the conflict between the federally-authorized flood control project and environmentally sensitive habitat protection. The proposed vegetation and sediment management program is an effort by the Corps to resolve the competing flood control and habitat needs.

The consistency determination provides additional details on the proposed vegetation and sediment management program, within the context of the three-year-long implementation element and the long-term operations and maintenance element:

Vegetation Management.

The Proposed Action (71,200 cfs.) has three basic types of vegetation management actions: 1) annual vegetation management through mowing and 2) vegetation managed every ten years, and 3) areas described as “un-maintained” vegetation types. Annually managed areas include in-channel areas that are mowed/chipped/shredded, permanent staging and access areas, areas under bridges, pond inlets and outlets, and other discharge outlets. Areas subject to vegetation and sediment management are also referred to as maintained management areas. Areas identified in the Proposed Action (Plates 4-3a-h) as “un-maintained” or as “compensation/preservation”² are not affected by vegetation or sediment management. All in-channel vegetation management treatments, such as mowing, chipping and shredding of the vegetation will remain in the river as part of the riparian biochemical detritus ecosystem process.

Reach 1 contains a 150-foot annually mowed width that coincides, where possible, with the existing low flow (flow conveyance zone). A 150-foot-wide flow conveyance zone is maintained in Reach 1 to compensate for the loss of conveyance in the flow conveyance zone in Reach 2. Additionally, sediment removal is restricted to this same 150-foot width. This allows unrestricted growth of vegetation in the remainder of the channel in this reach³. In addition, aligning the maintained width with the naturally existing low flow and areas of open water minimizes the amount of vegetation subject to disturbance.

Initial vegetation maintenance in Reaches 2, 3 and 4 will affect a width that ranges from 230 feet in upper reach 3A to avoid occupied flycatcher habitat, up to 325 feet in reaches 2 and 3A, and 290 feet in reaches 3B and 4. This will reduce the acute effects of habitat loss. In these reaches, there are two strips (60 to 75 feet wide, depending on the reach) subject to a ten-year rotation (one strip is maintained or mowed every five years). Areas maintained every ten years are designated as Rotation 1 and Rotation 2. Because the vegetation in the flow conveyance zone is already more than eight years old, Rotation 1 will be accomplished at the time of initial phased events (Phase 3) and every ten years thereafter. Rotation 2 will be accomplished five years after Rotation 1, and every ten years thereafter. Under this rotation scheme, vegetation can re-grow up to ten years, increasing its potential to support nesting habitat during the latter years of the rotation. The maintained strips will not be subjected to selective thinning (i.e., removal of vegetation with dbh (diameter-to-breast height) > 0.5 inches).

² Compensation is equivalent to mitigation and is actually a form of mitigation referred to in Clean Water Act, Section 404 guidance for wetland protection. Preservation areas are those that were not compensation areas and were to be preserved (unaffected) during physical construction of the flood control project.

³ The effect of vegetation growth, vegetation washout and sediment removal has been carefully considered because of its impact on conveyance capacity. This is discussed thoroughly in the hydraulic analysis (Corps, 2003).

Unmaintained vegetation (vegetation within the original 400-foot-wide flow conveyance zone) and mitigation/preservation areas (areas outside the original 400-foot-wide flow conveyance zone), will not be subject to vegetation mowing or to sediment removal activities. All staging areas and most access routes to the maintained areas would be needed only for the initial phased events (Phases 1, 2, and 3). This would be evaluated as a temporary disturbance. Some access routes in the river must also be maintained for subsequent annual maintenance events and emergency operations. These access routes will be evaluated as permanent disturbances (see Figure 4-3a in the PADD/SEIS/SEIR). In general, to prevent disturbance and trampling of riparian vegetation outside the work zone, unmaintained vegetation areas will be taped off or flagged by a trained biologist prior to initiation of the operation and crewmembers will be informed of the significance of flagged or taped areas in relation to habitat preservation.

Vegetation management/maintenance shall include the mowing and shredding of vegetation using a mower or similar equipment. Biomass from vegetation maintenance/mowing activities shall be left within the channel. Mowers would avoid open water as much as practicable. Due to limited access to the channel, crossing of the low flow channel may be required. Mowers would avoid as much as practicable areas dominated by emergent freshwater marsh. In the event of a rain storm that would produce sizeable flows in San Luis Rey River, equipment would be removed from the channel until work can be resumed. Mulch and debris that is washed down to downstream areas, such as the beaches of Oceanside, under bridges, at the channel outlet gates, and near tidal areas (i.e., near Pacific Street crossing), as a result of a storm event would be removed by the City during routine debris removal activities.

Staging areas are compacted, degraded, and un-vegetated areas away from the active river channel (low flow channel) used for parking equipment, equipment maintenance, fueling, and other work activities. An area outside of the channel near Benet Road Bridge would be used as a staging area. The property is owned by the City of Oceanside and is available for use by the project contractor. Other areas outside the channel, but within the project area, including areas currently designated as access areas for the existing bicycle trail, may be designated as temporary staging areas, but clearing of vegetated cover to create such an area shall not be done.

While in-channel staging areas would be primarily for sediment management activities, these sites may be utilized for the vegetation maintenance, although unlikely. If in-channel staging areas are necessary, they shall be located approximately every 1,000 to 1,500 feet within the channel and their locations may be further optimized to minimize impacts to sensitive habitats and biological resources. In-channel staging areas shall be located adjacent to the levee, running along the levee for 100 feet and extending approximately 50 feet into the channel as needed. Access to the staging area shall be 50 feet wide to safely accommodate two-way traffic.

An access route is a route used to move equipment from public access onto the project site. Preexisting channel access points and routes will be utilized. Ramps exist along the north levee in Reach 1, on the northwest side of Benet Road Bridge and Foussat Road Bridge, to the southeast of Douglass Drive, and to the northeast of College Blvd. A maintenance road upstream of Foussat Road Bridge, where the San Diego Gas & Electric (SDG&E) high voltage lines are located, may also be used.

Arundo donax (giant reed, arundo) shall be removed from the channel regardless of location. The proposed program consists of spraying Arundo in the late fall/early winter. Late September is considered appropriate because sensitive wildlife species have either migrated or are not actively breeding, the plants are not yet dormant, and the winter rains have not yet started. Application of herbicide in advance of the growing season would kill the biomass and allow the herbicide to be translocated to the root system, thus resulting in more effective eradication of Arundo.

Rodeo™ or other herbicides will be used that are approved for use in aquatic environments. Based on site-specific conditions, either truck sprayers (for use in large infested areas with adequate access) or backpack sprayers (for smaller, more remote and sensitive areas) could be used. Initial herbicide treatment would be followed up with additional spraying of the sprouted vegetation and hand removal of dead stems during the completion of the construction period. The annual maintenance plan would include spraying and/or cutting of dead stems of Arundo sp. for three to five years. After that time, the sites will be evaluated for restoration potential. A National Pollution Discharge Elimination (NPDES) permit for aquatic herbicide application will be obtained prior to implementation of the program (and for Tamarix sp. removal below).

Tamarix sp. (tamarisk, saltceder) control shall be concentrated in monotypic stands. The removal method may be a cut and spray program, which is most effective if begun in the early fall when plants are translocating materials to their roots. Individual Tamara sp. plants are cut as close to the ground as possible and herbicide is applied immediately thereafter to the perimeters of the cut stems. The treated areas are monitored and adaptively managed for three to five years thereafter to treat any resprouts. In areas of standing or flowing water other methods of removal may be an option, such as a more aggressive and frequent cutting program accompanied by less effective aquatic use of herbicides or root removal.

Detention/Mitigation ponds support areas of willow riparian vegetation and are generally dominated by mulefat scrub and a mixture of non-native vegetation with some coastal sage scrub species. The non-native vegetation will be cleared and replanted, if necessary, with native vegetation suitable for the existing hydrologic conditions.

Successful operation of the ponds requires that the sand traps (settling ponds) adjacent to the inlet structures of the ponds be cleaned of sediment buildup and that inlet and outlet structures be kept free of debris, waste, and vegetation. As stated in the Supplemental Phase II General Design Memorandum (SPIIGDM), flood debris including sediment that blocks

gates or poses a hazard to any feature of the proposed action will have to be removed as soon as possible. Vegetation would be cleared by hand and, since the gate inverts are higher than the channel invert, vegetation management would include the management of the annual growth. Since only vegetation or sediment that prevents the gates from opening needs to be managed, this is not expected to average more than 100- to 625-sq. ft. where water discharges from the surrounding drainage area into the ponds and at the outlet of the ponds to the river. The City shall be responsible for annual maintenance. The ponds do not have access ramps to the invert, and access to maintain the outlets must be coordinated with the Corps prior to action by the City.

Other cleared areas, such as bridges, street outlets and other structures also need to be maintained. It is necessary to ensure that they function properly and that damage is minimized during flood events. There are side drains with flap gates located along the area of the proposed action (e.g., right levee) adjacent to Harbor Parking Lot #1 near Pacific Street below I-5. Vegetation and debris interfering with gate closure must be cleared away or extensive flooding of tributary areas and saturation of earth behind channel walls may occur. General hardscaping and landscaping of the flood control channel would need to be maintained under the procedures and instructions of the O&M Manual. In addition, vegetation beneath and around bridges located within the area of the proposed action will be cleared as needed (for practical interpretation this is assumed to be an annual clearing).

Revegetation shall occur, where necessary, in the in-channel staging areas and at some of the access points not within the maintained areas of the channel. Access from existing ramps to the maintained strips will not be replanted since these will be redisturbed annually. These access points will be allowed to revegetate on their own between maintenance events. In areas where replanting of willow riparian or mulefat scrub vegetation is necessary (particularly staging areas, access roads and areas occupied by Arundo), willow, mulefat, or other native riparian propagules may be obtained from adjacent areas (or suitable areas) within the channel.

Sediment Removal.

In the sediment analysis (Appendix C of the PADD/SEIS/SEIR), it is assumed that over a 25-year period of sediment accumulation, the amount of sediment that will need to be removed will be approximately 260,000 cubic yards (cy). It is also assumed that over this same time period, 900,000 cy will be conveyed to the ocean (as compared to 360,000 cy under the No Action Alternative). Following completion of Phase 1, a topographic survey and map will be completed of the channel invert. The hydraulic and design engineers will review the information of the proposed action and determine if any sediment needs to be removed within the flow conveyance zone. If any sediment needs to be removed, sediment removal operations would occur during Phase 2 and/or Phase 3. The evaluation of the bed elevations may indicate that sediment also must be removed within the strip designated as Rotation 2 that is scheduled for maintenance 5 years following initial maintenance of Rotation 1). If that occurs, a one-time hydraulic analysis will be made to determine whether the location and depth of deposition of sediment will impact the flow conveyance capacity. If

the hydraulic analysis indicates that the capacity of the proposed action will be sufficient, the second vegetation rotation strip will remain undisturbed during initial sediment removal. If, however, sediment in Rotation 2 must be removed, removal will occur as described above. Topographic surveys within the channel will be completed every five years after the survey completed for the construction phase clearing, or after any year with a peak discharge event greater than 5,000 cfs, which is approximately a 10-year frequency event.

When sediment removal is required, it will take place between September 15 and March 15, which is outside the vireo and flycatcher-nesting season. To prevent disturbance and trampling of riparian vegetation outside the work zone, unmaintained vegetation areas will be taped off or flagged by a trained biologist prior to initiation of the operation, and crewmembers will be informed of the significance of flagged or taped areas in relation to habitat preservation.

Sediment removal activities will consist of a few dozers excavating and piling the sandy material in the river, a few vibratory pieces of screening equipment segregating the organic material from the sand, and a few loaders feeding the screening equipment and loading the trucks. Trucks will haul the sediment to the designated disposal site. Depending on the quality and quantity of the sediment, the sediment removed may be taken to a landfill site (Miramar Landfill). Based upon the hydraulic survey and analysis, sediment management will also consider hauling and disposing sandy sediment at the Oceanside beaches or utilizing the sediment for commercial and industrial applications. The feasibility of using these disposal locations for part or all of the sediment will be reconfirmed prior to initiating work in the channel based in part on the chemical and textural quality of the sediment, availability of the disposal site, etc. Handling, transport and disposal of sediment will comply with all applicable Federal, State, and local laws.

Operation and Maintenance of the Proposed Action.

Operational phase management shall commence with the acquisition of the project, or portions thereof, by the City of Oceanside. Because implementation of the Proposed Action (71,200 cfs.) will be completed in 3 phases, operation of the channel structures and vegetation management responsibilities associated with the respective phases would be turned over to the City following completion of each phase. In other words, operation and maintenance responsibilities would be turned over to the City in phases to coincide with the phased vegetation management.

Arundo eradication primarily using chemical spraying with some mechanical removal would be continued annually for the life of the project. Eradication of Arundo and maintenance of habitat quality in the lower San Luis Rey River is complicated by re-infestation from upstream.

Annual maintenance of the flow conveyance zone will occur in those areas designated as annually maintained areas and will be performed with a mower or similar equipment that will cut the vegetation at or just above the surface of the invert. Sediment disturbance is not

anticipated with yearly maintenance, though BMPs will be followed. In the 60- or 75-foot wide strips that are maintained on a 5 and 10-year rotation, the second strip in the rotation will be mowed 5 years following mowing of Rotation 1. Maintenance for the rotational strip (which will occur every 5th year) will be similar to that described for the initial construction phase management events. For both regimes, mowed vegetation will be left within the channel.

Subsequent long-term sediment management requirements may be determined using the same procedure as for the initial sediment management. Under these specifications, it is likely that sediment management will be required only relatively infrequently on average over the life of the project, and only along specific segments or reaches of the project length rather than along the entire length. As indicated above, there will be no sediment management within the un-maintained and compensation/preservation areas.

The consistency determination documents the permanent effects on riparian vegetation (i.e., removal of vegetation from the flood control channel) from the initial program implementation as follows:

The resulting first-year (Phase 1) losses from vegetation management would be about 130 acres of all the vegetation/habitat types within the area of the proposed action. Subsequent vegetation management in phases 2 and 3 would impact about an additional 41 and 62 acres within the maintained areas, including bridges. By the end of the implementation phases, approximately 233 acres would be affected. Of this total about 25 acres would be part of the Rotation 1 management area and another 25 acres would be part of the Rotation 2 management area where vegetation would be allowed to grow for 10 years. Five years following initial management (mowing) of Rotation 1, Rotation 2 management area would be mowed so that the management of the rotational areas is staggered by 5 years. As a result there would be vegetation of up to 10 years in age in these areas at any given time.

Subsequent vegetation management on an annual basis would have less impact on wetland or riparian vegetation, since it would tend to follow the same alignment, unless a significant washout event occurred that would redirect management along a new alignment with less vegetation. During annual vegetation management, the proposed action would affect approximately 180 acres along with infrequent sediment removal potentially every five years or after 10 year flow events.

Exhibit 5 provides seven section maps of the flood control channel illustrating the proposed vegetation management plan, including areas of annual clearing, ten-year rotation areas, temporary staging areas, access roads, unmaintained vegetation areas, and preservation/compensation areas. **Exhibit 6** provides illustrated section views of the proposed vegetation management plan at ten locations within the flood control channel at each of the three implementation phases, including open water, unmaintained vegetation, maintained vegetation, and rotation areas.

To summarize, implementation over three years of the proposed vegetation and sediment management program would result in the loss of approximately 233 acres of riparian vegetation within the seven-mile-long flood control channel (**Exhibit 7**). Annual vegetation management to maintain the established flow conveyance zone would annually affect an approximately 180 acre-area within the initial 233 acres that would be cleared. The only section of the flood control channel within the coastal zone that would be subject to vegetation management is the approximately 0.75-mile-long section of the channel upstream of the I-5 bridge; no vegetation management would occur in the approximately one-half-mile-long section between the bridge and the Pacific Ocean. In the approximately 13-acre vegetation management area within the coastal zone (i.e., the 150-foot-wide flow conveyance zone to be kept clear of vegetation), it is difficult to calculate the exact potential loss of existing riparian habitat during the three-year-long implementation program given that there currently exists a narrow flow conveyance zone free of vegetation in this area; however, the loss of habitat would be less than 13 acres. Annual mowing and clearing of this flow conveyance zone would preclude the re-establishment of riparian vegetation in this area.

The Corps states in its consistency determination that mitigation for the aforementioned losses of riparian habitat in the flood control channel arising from implementation of the proposed vegetation and sediment management program is adequately addressed by the fact that the modified project will result in less impacts to and reduced losses of riparian habitat when compared to the Congressionally authorized flood control project. In addition, the Corps notes that it will comply with 27 non-discretionary terms and conditions to implement conservation measures contained in the 2006 U.S. Fish and Wildlife Service *Biological Opinion*, including conservation measure No. 20:

The Corps will provide \$2 to 5 million, as appropriated by Congress, to an entity mutually agreed upon by the Service and the Corps to further the recovery of the vireo and flycatcher within the San Luis Rey River watershed or northern San Diego County . . .

The Commission notes that the subject consistency determination addresses only Corps of Engineers activities in the flood control project area, both within and inland of the coastal zone. As described above, the Corps intends to transfer at future dates flood control operation and maintenance activities in phases to the City of Oceanside. Prior to those transfer dates and before undertaking operation and maintenance work, the City will need to obtain a coastal development permit from the Commission for those flood control channel operation and maintenance activities located within the coastal zone, and may also need to submit a consistency certification to the Commission for those project elements located upstream of the coastal zone. Commission action on this consistency determination does not relieve the City of Oceanside from coastal development permit requirements under the state Coastal Act or federal consistency requirements under the federal Coastal Zone Management Act for its future maintenance activities on the San Luis Rey River.

The Commission received two letters commenting on the proposed project and they are provided in **Exhibit 10**.

C. Federal Agency's Consistency Determination. The Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

II. Applicable Legal Authorities.

Section 307 of the Coastal Zone Management Act (CZMA) provides in part:

(c)(1)(A) Each federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.

A. Conditional Concurrences.

15 CFR § 930.4 provides, in part, that:

(a) Federal agencies, ... agencies should cooperate with State agencies to develop conditions that, if agreed to during the State agency's consistency review period and included in a Federal agency's final decision under Subpart C ... would allow the State agency to concur with the federal action. If instead a State agency issues a conditional concurrence:

(1) The State agency shall include in its concurrence letter the conditions which must be satisfied, an explanation of why the conditions are necessary to ensure consistency with specific enforceable policies of the management program, and an identification of the specific enforceable policies. The State agency's concurrence letter shall also inform the parties that if the requirements of paragraphs (a)(1) through (3) of the section are not met, then all parties shall treat the State agency's conditional concurrence letter as an objection pursuant to the applicable Subpart...

(2) The Federal agency (for Subpart C) ... shall modify the applicable plan [or] project proposal, ... pursuant to the State agency's conditions. The Federal agency ... shall immediately notify the State agency if the State agency's conditions are not acceptable; and ...

(b) If the requirements of paragraphs (a)(1) through (3) of this section are not met, then all parties shall treat the State agency's conditional concurrence as an objection pursuant to the applicable Subpart.

B. Consistent to the Maximum Extent Practicable.

Section 930.32 of the federal consistency regulations provides, in part, that:

(a)(1) The term "consistent to the maximum extent practicable" means fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.

The Commission recognizes that the standard for approval of Federal projects is that the activity must be “consistent to the maximum extent practicable” (Coastal Zone Management Act Section 307(c)(1)). This standard allows a federal activity that is not fully consistent with the CCMP to proceed, if compliance with the CCMP is “*prohibited [by] existing Federal law applicable to the Federal agency's operations*” (15 C.F.R. § 930.32). The Corps of Engineers did not provide any documentation to support a maximum extent practicable argument in its consistency determination. Therefore, there is no basis to conclude that existing law applicable to the Federal agency prohibits full consistency.

III. Staff Recommendation.

The staff recommends that the Commission adopt the following motion:

Motion: I move that the Commission **conditionally concur** with the Corps of Engineer’s consistency determination CD-043-07 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program.

Staff Recommendation:

Staff recommends a **YES** vote on the motion. Passage of this motion will result in an agreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Conditionally Concur with Consistency Determination:

The Commission hereby **conditionally concurs** with the consistency determination made by the Corps of Engineers for the proposed project on the grounds that, if modified as described in the Commission’s conditional concurrence, the project would be consistent with the enforceable policies of the California Coastal Management Program, provided the Corps of Engineers satisfies the conditions specified below pursuant to 15 CFR § 930.4.

Conditions:

1. Habitat Replacement. The Corps of Engineers shall modify the proposed vegetation management program to include a plan for riparian/wetland habitat acquisition, enhancement, restoration, and/or creation within the San Luis Rey River watershed, or other watersheds in northern San Diego County which are suitable for least Bell’s vireo and southwestern willow flycatcher habitat. The goal of this habitat replacement plan is to ensure replacement of the planned removal of 233 acres of riparian habitat in the San Luis Rey River flood control channel with an equivalent acreage and/or biological value of vireo/flycatcher habitat. To achieve this goal, the habitat replacement plan could include, but would not be limited to, the following elements: control/eradication of giant reed (*Arundo donax*) within riparian corridors, which would then yield suitable vireo/flycatcher habitat; enhancement and/or restoration of existing vireo/flycatcher habitat on public or private lands with appropriate legal mechanisms to ensure habitat protection in perpetuity; creation of

new vireo/flycatcher habitat on public or private lands with appropriate legal mechanisms to ensure habitat protection in perpetuity; purchase of lands for the purpose of enhancing/restoring/creating vireo/flycatcher habitat; funding by the Corps, through Congressional appropriations, of vireo and flycatcher recovery efforts by the U.S. Fish and Wildlife Service within the San Luis Rey River watershed or northern San Diego County; provisions, including funding, for monitoring, maintenance, and remediation in perpetuity of all vireo/flycatcher habitat enhanced, restored, or created as a result of this plan. The Corps shall submit a habitat replacement plan to the Commission for its review and concurrence prior to the start of construction of the proposed flood control channel vegetation and sediment management program.

2. Beach Replenishment. The Corps of Engineers shall modify the proposed sediment management program to state that all sediment removed from the flood control channel during Phase 2 and Phase 3 of project implementation, and during subsequent operation and maintenance actions by the Corps and/or the City of Oceanside, shall be transported to and placed on Oceanside area beaches, provided that the excavated sediments are physically and chemically suitable for beach replenishment. The Corps and/or the City of Oceanside shall submit sediment suitability analysis and beach replenishment plans to the Commission's Executive Director no later than 45 days prior to the start of sediment removal operations in the flood control channel.

As provided in 15 CFR § 930.4(b), should the Corps of Engineers not agree with the Commission's conditions of concurrence, then all parties shall treat the conditional concurrence as an objection.

IV. Findings and Declarations:

The Commission finds and declares as follows:

A. Environmentally Sensitive Habitat. The Coastal Act provides the following:

Section 30231. The biological productivity 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 30233(d). Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable

provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Section 30236. *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

(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.

As described previously in this report, the consistency determination states that approximately 233 acres of riparian habitat within the flood control channel (including less than 13 acres within the coastal zone) would be eliminated during the three-year-long implementation period of the proposed vegetation and sediment management program. This represents approximately 54 percent of the riparian vegetation within the flood control channel from I-5 upstream to College Boulevard. The program would also temporarily affect approximately 3.6 acres of riparian habitat for project access and staging activities, and would aim to permanently eradicate the non-native and highly invasive giant reed (*Arundo donax*) throughout the maintained and unmaintained areas of the flood control channel.

As a result of the loss of riparian habitat (including mature willow woodland, successional and emergent willow riparian, freshwater marsh, mulefat/willow scrub, and disturbed areas, primarily dominated by *Arundo donax*), there will be direct and indirect adverse effects on wildlife that presently exist within the project area. Of particular concern is the presence in the flood control channel of sensitive wildlife species, including least Bell's vireo (state and federally endangered), southwestern willow flycatcher (state and federally endangered), and coastal California gnatcatcher (federally threatened). The consistency determination states that vireo breeding and nesting territories are located throughout the flood control project area, that 31 percent of vireo territory acres would be annually affected and 14 percent temporarily affected by the proposed project, that impacts to the southwestern willow flycatcher would be similar to vireo impacts, and that the project would affect riparian foraging areas of the coastal California gnatcatcher. However, the Corps also concludes that the project would not adversely affect the viability of bird and wildlife populations within the project area and that the proposed vegetation management would increase the amount and distribution of edge habitats, would create a range

of successional stages of cottonwood/willow/mulefat vegetation types advantageous to vireos, and would control the extensive stands of exotic vegetation in the channel, thereby leading to improved habitat quality for listed species.

The Corps states that given its agreement with the terms and conditions of the 2006 U.S. Fish and Wildlife Service *Biological Opinion*, the proposed project avoids and minimizes impacts to riparian habitat where feasible, and when impacts are unavoidable, mitigates those impacts (to both habitat and wildlife species) to a level less than significant. The Corps states that the proposed vegetation and sediment management plan for the flood control channel would increase habitat levels for endangered species and would improve designated critical habitat in comparison to the operation and maintenance plan authorized by Congress in 1988. The Corps also states that:

... Unaffected in-channel vegetation and habitat types include unmaintained areas where no vegetation or sediment management is scheduled to occur (conservation/preservation areas; detention/compensation ponds). Acreage numbers utilized in the analysis include all habitat types rather than distinguishing the riverine and willow riparian vegetation most favored by least Bell's vireo and southwestern willow flycatcher. In addition, much of this acreage, though affected, is expected to be utilized by these species, particularly under Alternative 11 (see discussion in Section 5.6.9 of the PADD/SEIS/SEIR). Mitigation for impacts to vegetation/habitat types are addressed through modification of the project operation and maintenance (less vegetation/habitat types affected compared to the Congressionally Authorized Plan (Alternative 2) and with the inclusion of unmaintained areas (conservation/preservation areas; detention/compensation ponds) ...

Nevertheless, the proposed vegetation and sediment management program will create a significant adverse impact on riparian habitat that supports state and federally listed species and numerous other terrestrial and aquatic vertebrates and invertebrates. The unavoidable loss of 233 acres of critical riparian habitat within the flood control channel arising from the proposed project resulted in the development of numerous mitigation and conservation measures included in the U.S. Fish and Wildlife Service's 2006 *Biological Opinion* for the project. The Service determined that while the loss of habitat from project would result in the take of vireos, flycatchers, and gnatcatchers, the level of anticipated take "is not likely to result in jeopardy to the species or adverse modification of designated or proposed critical habitat." The *Biological Opinion* provides a list of 27 non-discretionary terms and conditions that must be implemented by and complied with by the Corps and the City of Oceanside. The terms and conditions from the *Biological Opinion* are provided in **Exhibit 8** and the Corps' other minimization measures for other environmental resources are provided in **Exhibit 9**.

However, even with the Corps' implementation of the terms and conditions of the *Biological Opinion*, the Corps' determination that the proposed project creates less impacts than the previously-authorized flood control project, and the Corps' determination that the project would lead to increased protection of remaining riparian habitat and the listed species that habitat supports, the Commission cannot ignore the fact that the project would result in the loss of approximately 233 acres of valuable riparian habitat and that the project does not incorporate

adequate mitigation for this habitat loss. As a result, the project would create adverse impacts on coastal resources due to the direct and unmitigated loss of riparian habitat within the coastal zone in Reach 1 of the flood control channel, and due to the additional loss of riparian habitat adjacent to and upstream of the coastal zone. This latter development will adversely affect populations of listed species that spend part of their time within the coastal zone. The Commission has consistently required of both public agencies and private entities that unavoidable losses of riparian and wetland habitats be fully mitigated to ensure no net loss of those habitats within the coastal zone, and to ensure that projects which straddle the coastal zone boundary do not create significant adverse spillover effects on coastal zone resources. In this instance, the proposed vegetation management program and its anticipated loss of approximately one-half of the existing riparian habitat within the San Luis Rey River flood control channel will adversely affect coastal zone resources unless the habitat loss is adequately mitigated.

For these reasons, the Commission determines that in order for the proposed vegetation and sediment management program to be found consistent with the environmentally sensitive habitat policies of the CCMP, the program would need to be modified as follows:

Habitat Replacement. The Corps of Engineers shall modify the proposed vegetation management program to include a plan for riparian/wetland habitat acquisition, enhancement, restoration, and/or creation within the San Luis Rey River watershed, or other watersheds in northern San Diego County which are suitable for least Bell's vireo and southwestern willow flycatcher habitat. The goal of this habitat replacement plan is to ensure replacement of the planned removal of 233 acres of riparian habitat in the San Luis Rey River flood control channel with an equivalent acreage and/or biological value of vireo/flycatcher habitat. To achieve this goal, the habitat replacement plan could include, but would not be limited to, the following elements: control/eradication of giant reed (Arundo donax) within riparian corridors, which would then yield suitable vireo/flycatcher habitat; enhancement and/or restoration of existing vireo/flycatcher habitat on public or private lands with appropriate legal mechanisms to ensure habitat protection in perpetuity; creation of new vireo/flycatcher habitat on public or private lands with appropriate legal mechanisms to ensure habitat protection in perpetuity; purchase of lands for the purpose of enhancing/ restoring/creating vireo/flycatcher habitat; funding by the Corps, through Congressional appropriations, of vireo and flycatcher recovery efforts by the U.S. Fish and Wildlife Service within the San Luis Rey River watershed or northern San Diego County; provisions, including funding, for monitoring, maintenance, and remediation in perpetuity of all vireo/ flycatcher habitat enhanced, restored, or created as a result of this plan. The Corps shall submit a habitat replacement plan to the Commission for its review and concurrence prior to the start of construction of the proposed flood control channel vegetation and sediment management program.

The Commission finds that the proposed vegetation and sediment management program for the San Luis Rey flood control project will lead to the removal of approximately 233 acres of riparian habitat from the channel during the three-year-long program implementation period. In addition, the operations and maintenance phase of the program will require the annual maintenance of approximately 180 acres of riparian vegetation to keep the flow conveyance

channel free of vegetation. The Commission finds that it is necessary to condition its concurrence with CD-043-07 to state that the Corps of Engineers will modify the program to ensure that replacement riparian habitat adequate to support vireo and flycatcher populations is secured and maintained in perpetuity within the San Luis Rey River watershed or in other suitable locations in northern San Diego County.

The Commission finds the proposed project an allowable use under Section 30236 of the Coastal Act as a “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.” However without the mitigation represented by the above condition, the Commission could not find the project consistent with the requirement of Section 30236 that “substantial alterations of rivers ... shall incorporate the best mitigation measures feasible,” or with the requirement of Section 30231 that the biological productivity of coastal waters and streams be maintained and, where feasible, restored through ... among other means, ... maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.” The Commission finds the condition is also required to achieve consistency with the requirements of Section 30240 that “Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values” and that “Development in areas adjacent to environmentally sensitive habitat areas ... shall be sited and designed to ... be compatible with the continuance of those habitat and recreation areas.” A strict reading of Section 30240 would appear to prohibit the proposed removal of environmentally sensitive riparian habitat within the San Luis Rey River flood control channel. However, based on the general legal principle that “the specific outweighs the general,” the more specific allowable use provision in Section 30236 regarding flood control projects that incorporate the best mitigation measures feasible provides a basis for Commission concurrence. Therefore, the Commission finds that if modified in accordance with the Commission’s conditional concurrence, the proposed program would be consistent with the environmentally sensitive habitat policies of the CCMP (Coastal Act Sections 30231, 30233, 30236, and 30240).

B. Sand Supply. Section 30233(b) of the Coastal Act provides that:

Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation, Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

The Corps states in its consistency determination that over the initial 25-year period of sediment accumulation in the San Luis Rey flood control channel, approximately 260,000 cubic yards of sediment will need to be removed from the flood control channel to maintain the project design flow capacity. Sediment removal would likely occur during implementation Phases 2 and 3 of the proposed vegetation and sediment management program. Topographic surveys within the channel will be completed every five years after completion of the survey that will follow the construction phase clearing, or after any year with a peak discharge event greater than 5,000 cfs (an approximately a 10-year frequency event).

The consistency determination describes the Corps’ plan for sediment removal:

Sediment removal activities will consist of a few dozers excavating and piling the sandy material in the river, a few vibratory pieces of screening equipment segregating the organic material from the sand, and a few loaders feeding the screening equipment and loading the trucks. Trucks will haul the sediment to the designated disposal site. Depending on the quality and quantity of the sediment, the sediment removed may be taken to a landfill site (Miramar Landfill). Based upon the hydraulic survey and analysis, sediment management will also consider hauling and disposing sandy sediment at the Oceanside beaches or utilizing the sediment for commercial and industrial applications. The feasibility of using these disposal locations for part or all of the sediment will be reconfirmed prior to initiating work in the channel based in part on the chemical and textural quality of the sediment, availability of the disposal site, etc. Handling, transport and disposal of sediment will comply with all applicable Federal, State, and local laws.

. . .

Subsequent long-term sediment management requirements may be determined using the same procedure as for the initial sediment management. Under these specifications, it is likely that sediment management will be required only relatively infrequently on average over the life of the project, and only along specific segments or reaches of the project length rather than along the entire length. As indicated above, there will be no sediment management within the un-maintained and compensation/preservation areas.

The consistency determination also states that as a result of the proposed vegetation and sediment management program, the San Luis Rey River is expected to convey an average of 36,000 cubic yards per year of sediment to the ocean and possibly onto area beaches:

The proposed vegetation maintenance would reduce the roughness of the channel bottom. Flow velocities would be greater along the maintained strip of the channel, such that the capacity of the river to transport sediment would be increased. The increased transport capacity would increase the potential for erosion or scour of the river bed as well as decrease the potential for sediment deposition. Also, sediment that enters into the flood control project area from upstream would be more likely to move through the system to the ocean. As a result of the increased transport capacity, the average annual volume of sediment transported by the river to the ocean would increase.

The Commission typically finds that dredged or excavated materials with a sand content of at least 80 percent, and that have no more than a 20 percent difference in sand content from the receiver beach, are physically compatible for that receiver site. If the materials have also passed chemical testing and are found suitable for unconfined aquatic disposal, then the Commission typically requires that those materials be placed either on a receiver beach or in the nearshore zone of that beach. However, the Corps' consistency determination states that sediment removed from the flood control channel will only be "considered" for disposal at Oceanside beaches, along with other potential disposal sites (e.g., landfills, commercial, and industrial applications). This element of the sediment management plan is not consistent with the sand supply policy of

the Coastal Act. Oceanside's shoreline is regularly subject to severe threats from wave damage, due in large part to reductions in sediment delivery from the San Luis Rey and Santa Margarita Rivers, combined with shoreline structures constructed by the Corps of Engineers that interrupt longshore sediment transport. If future excavated sediments from the San Luis Rey flood control channel are physically and chemically suitable for beach replenishment, they must be used for such purposes on Oceanside area beaches. For these reasons, the Commission determines that in order for the proposed vegetation and sediment management program to be found consistent with the sand supply policy of the CCMP, the program would need to be modified as follows:

Beach Replenishment. The Corps of Engineers shall modify the project description to state that all sediment removed from the flood control channel during Phase 2 and Phase 3 of project implementation, and during subsequent operation and maintenance actions by the Corps and/or the City of Oceanside, shall be transported to and placed on Oceanside area beaches, provided that the excavated sediments are physically and chemically suitable for beach replenishment. The Corps and/or the City of Oceanside shall submit sediment suitability analysis and beach replenishment plans to the Commission's Executive Director no later than 45 days prior to the start of any sediment removal operations in the flood control channel.

The Commission finds that the proposed vegetation and sediment management program for the San Luis Rey flood control project will lead to the excavation and removal of approximately 260,000 cubic yards of sediment from the channel over a 25-year period. The Commission finds that it is necessary to condition its concurrence with CD-043-07 to state that the Corps of Engineers will modify the program to ensure that excavated sediments suitable for beach replenishment will be transported and placed on Oceanside area beaches. Therefore, the Commission finds that only if modified in accordance with the Commission's conditional concurrence, the proposed program would be consistent with the sand supply policy of the CCMP (Coastal Act Section 30233(b)).

SUBSTANTIVE FILE DOCUMENTS:

1. Coastal Consistency Determination for San Luis Rey River Flood Control Project from College Blvd. to the Pacific Ocean, San Diego County, California, July 2007.
2. Corps of Engineers Negative Determinations ND-053-88, ND-020-89, ND-028-89, and ND-005-06 for modifications to and emergency vegetation control at the San Luis Rey River Flood Control Project.
3. Corps of Engineers Phase I and Phase II General Design Memorandum (GDM), San Luis Rey Flood Control Project, 1984.
4. USFWS Biological Opinion, San Luis Rey River Flood Control Project, 1987.

5. Corps of Engineers Supplemental Phase II GDM, San Luis Rey River Flood Control Project, 1987
6. Corps of Engineers, Supplemental Environmental Assessment, San Luis Rey River Flood Control Project, 1988.
7. USFWS Amended Final Biological Opinion, San Luis Rey River Flood Control Project, 2006.
8. Corps of Engineers, Final Integrated Post Authorization Decision Document for the San Luis Rey River Flood Control Project, including Technical Appendices, July 2007.

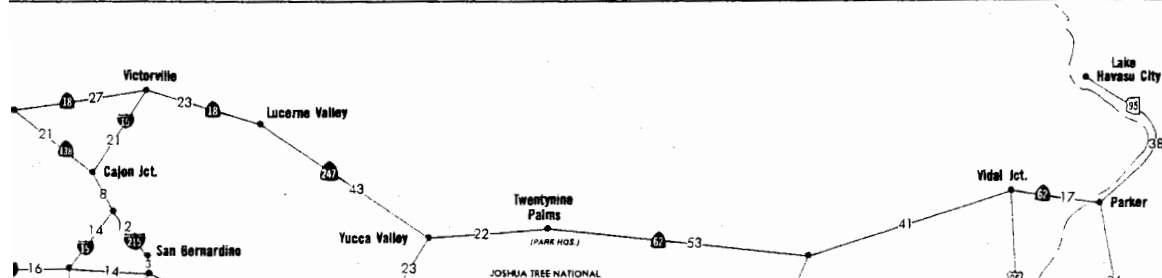
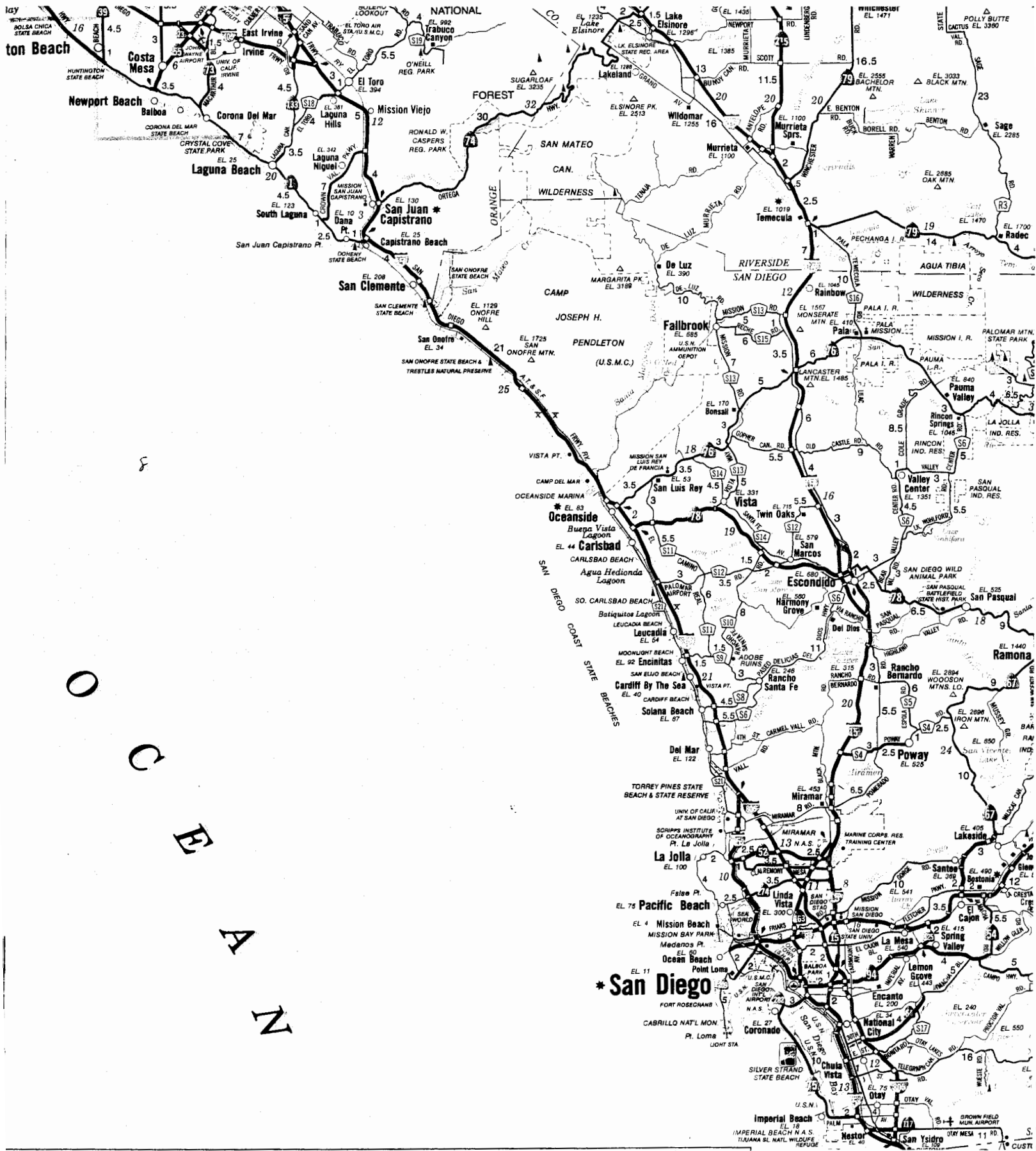
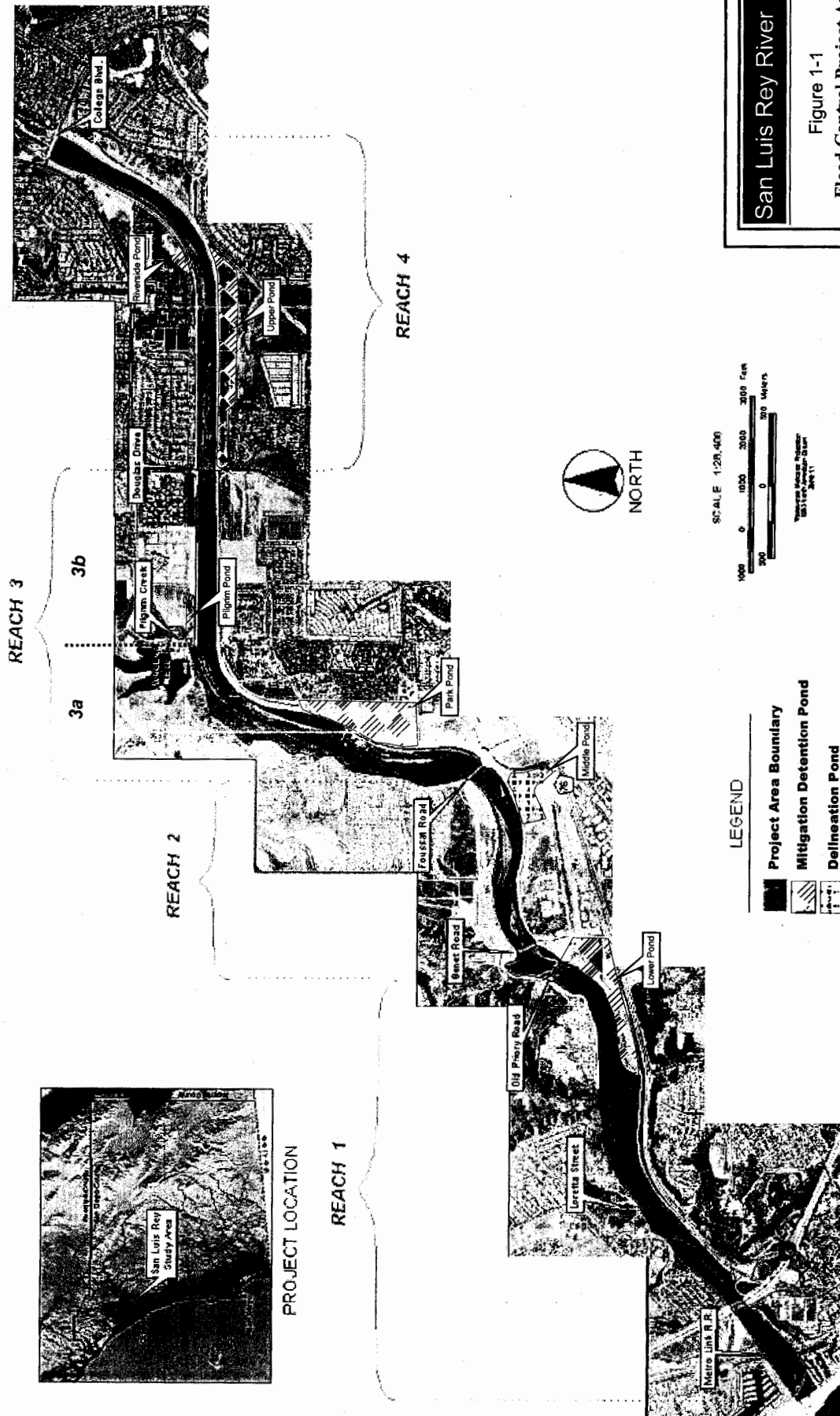


EXHIBIT NO. 1
APPLICATION NO.

CD-043-07



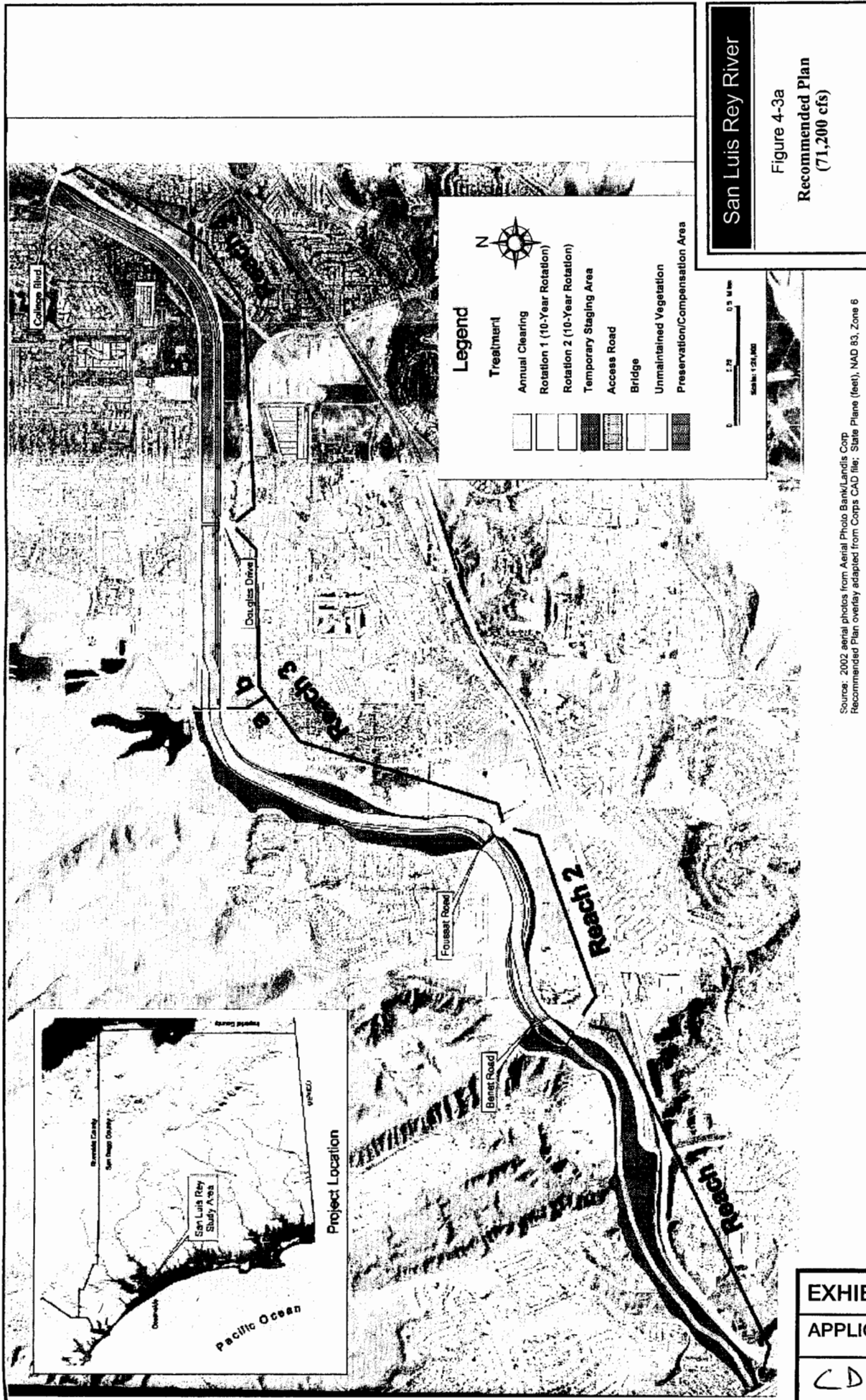
San Luis Rey River
Figure 1-1
Flood Control Project Area

October 2005

EXHIBIT NO. 2

APPLICATION NO.

CD-043-07

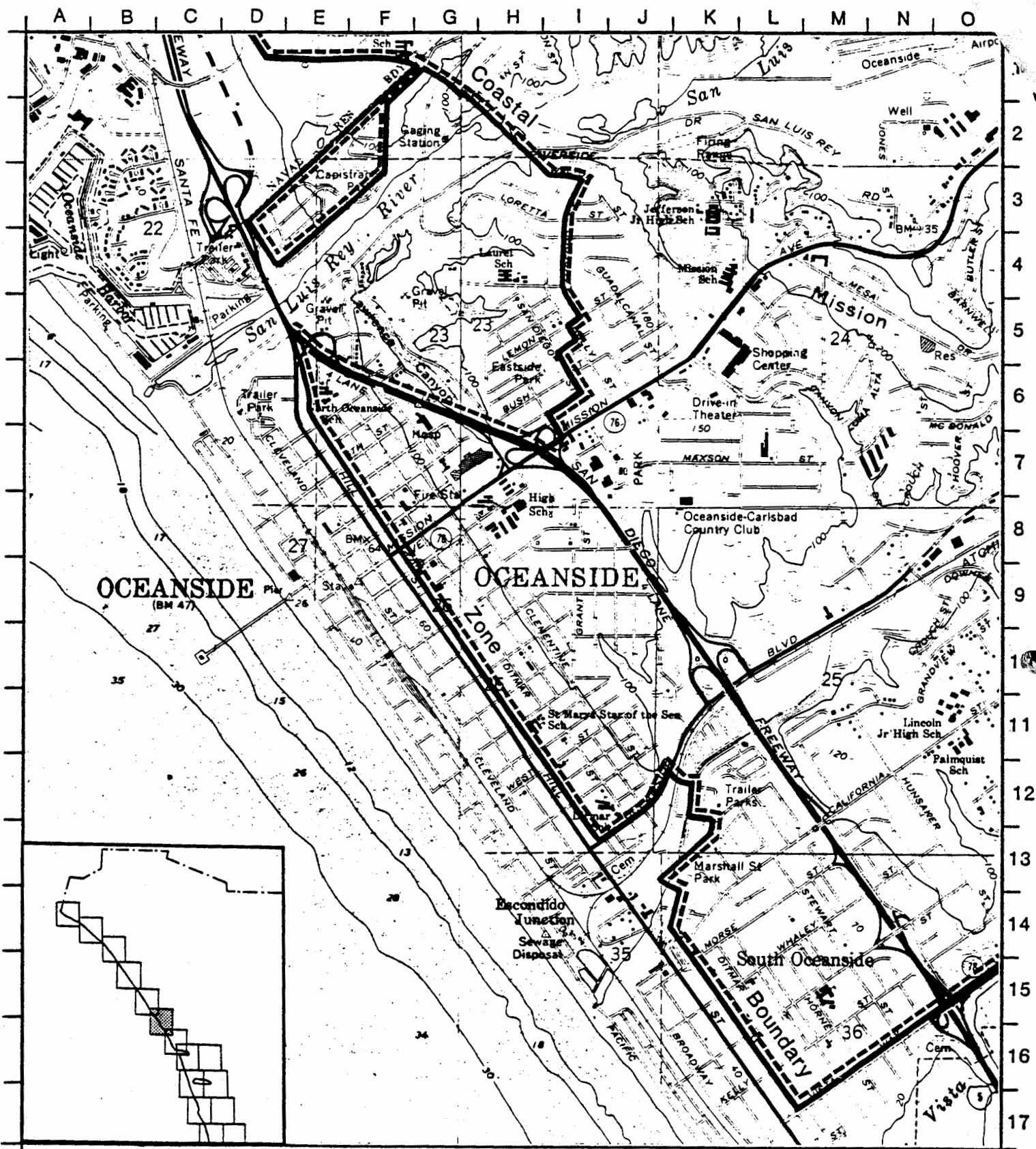


October 2006

EXHIBIT NO. 3

APPLICATION NO.

CD-043-07

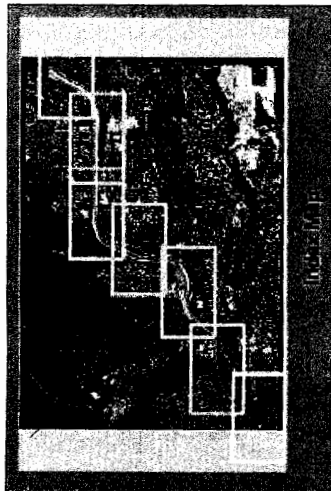




San Luis Rey River

Figure 4-3b
Recommended Plan
(71,200 cfs)

October 2006



Legend

- Annual Clearing
- Rotation 1 (10-Year Rotation)
- Rotation 2 (10-Year Rotation)
- Temporary Staging Area
- Access Road
- Bridge
- Unmaintained Vegetation
- Preservation/Compensation Area



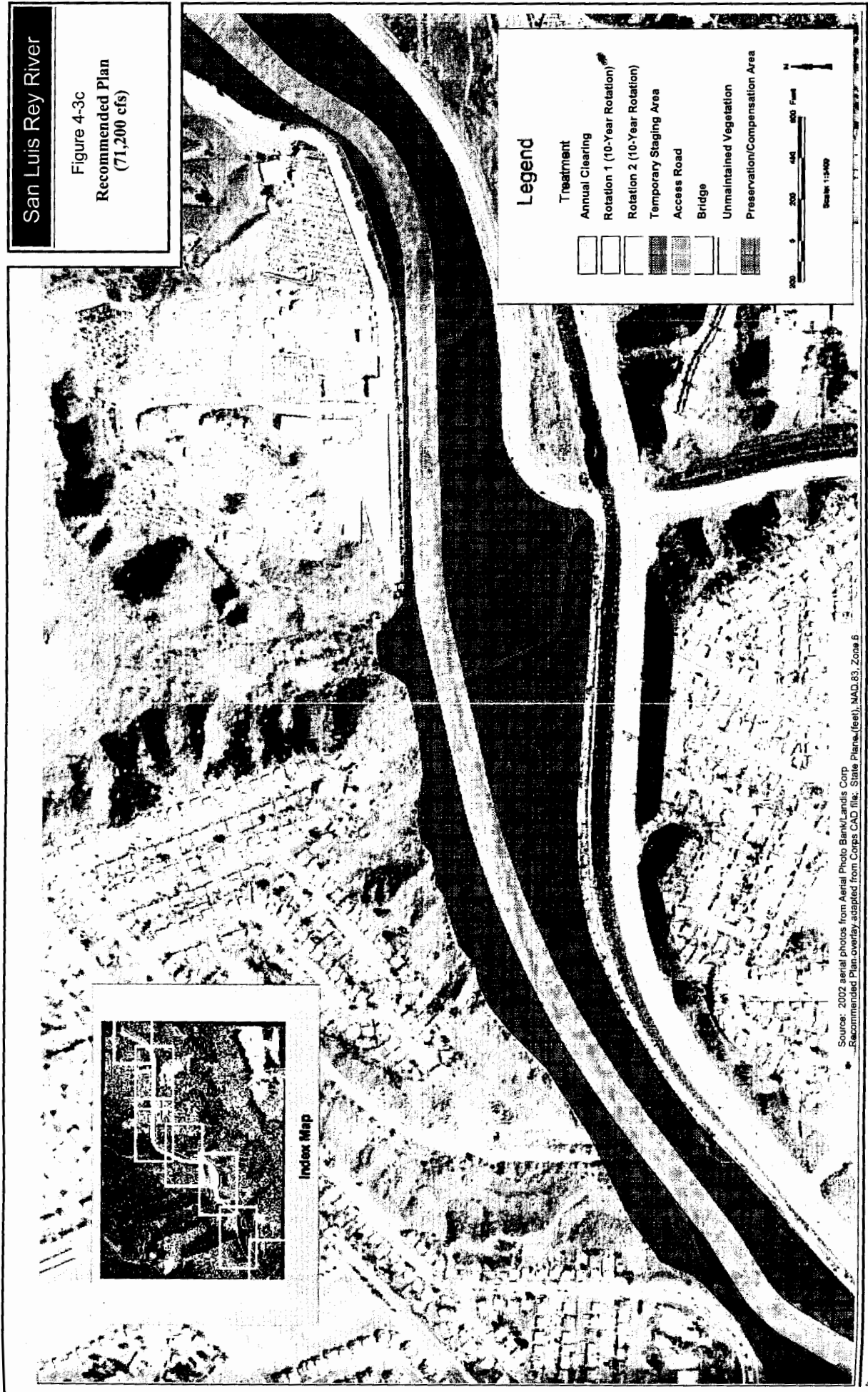
Photo Bank/Landis Corp
rom Corps CAD file: State Plane (feet), NAD 83, Zone 6

EXHIBIT NO. 5
APPLICATION NO.

CD-043-07

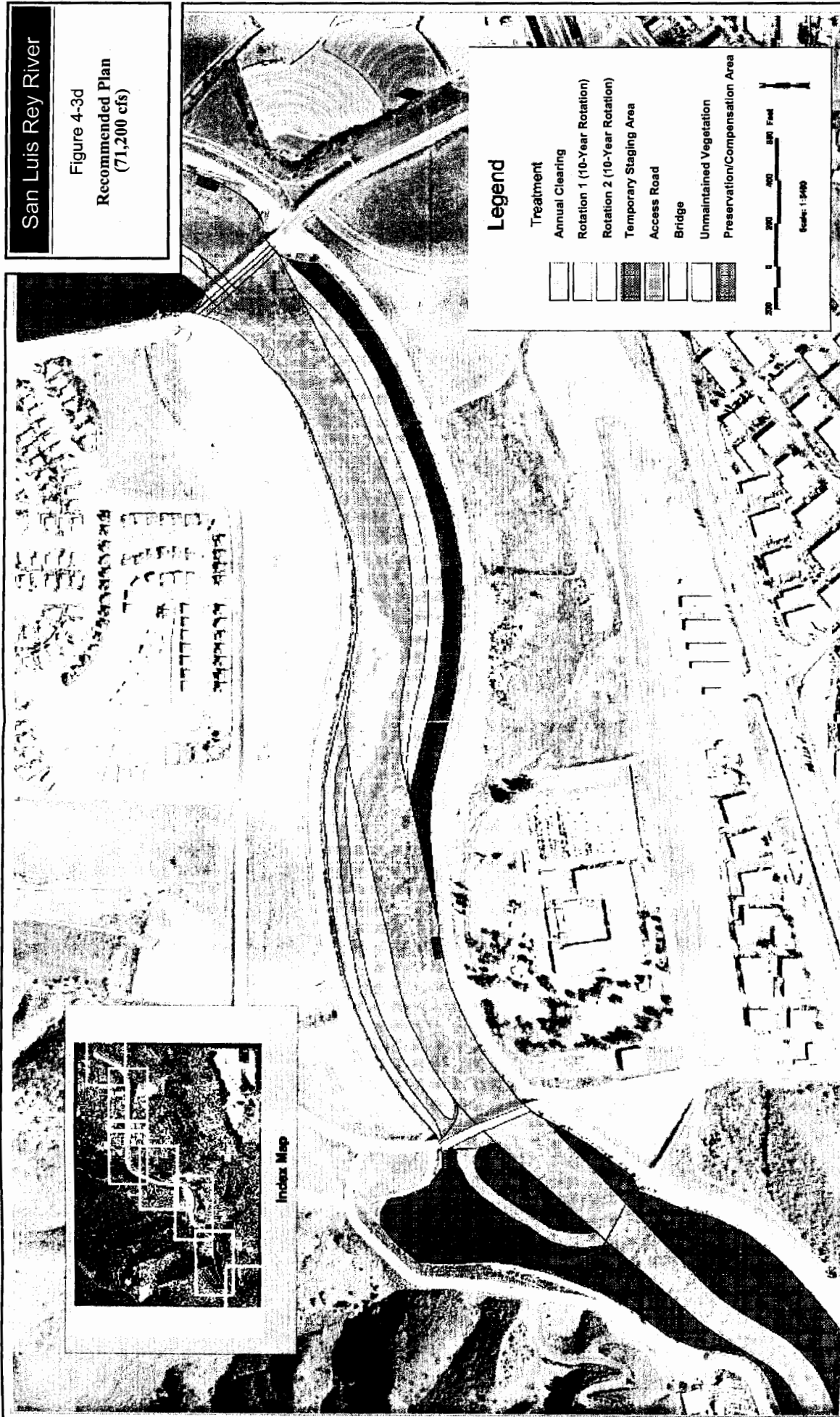
San Luis Rey River

Figure 4-3c
Recommended Plan
(71,200 cfs)



San Luis Rey River

Figure 4-3d
Recommended Plan
(71,200 cfs)

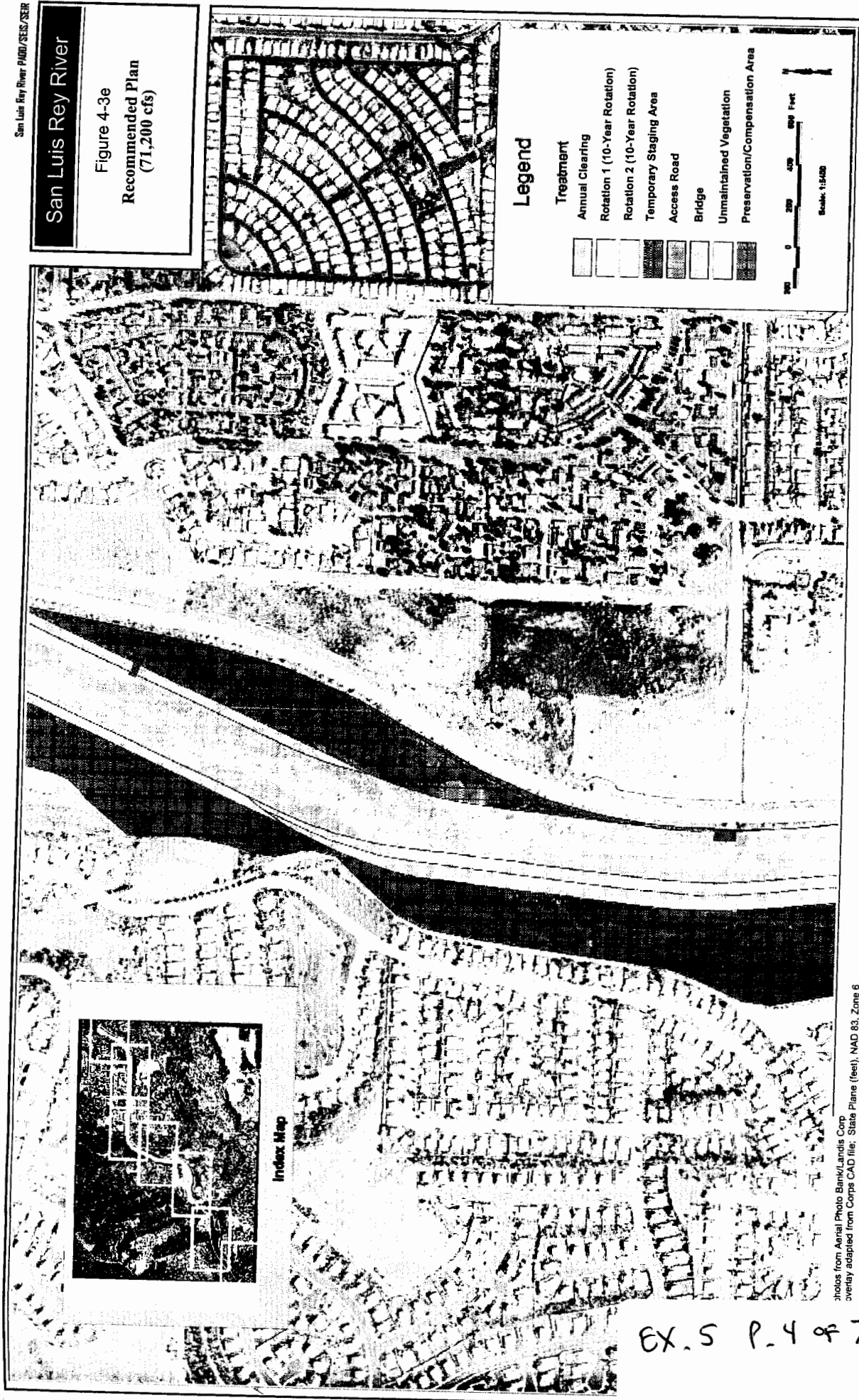


Source: 2002 aerial photos from Aerial Photo Bank/Landis Corp
Recommended Plan overlay adapted from Corps CAD file, State Plane (feet), NAD 83, Zone 6

October 2005

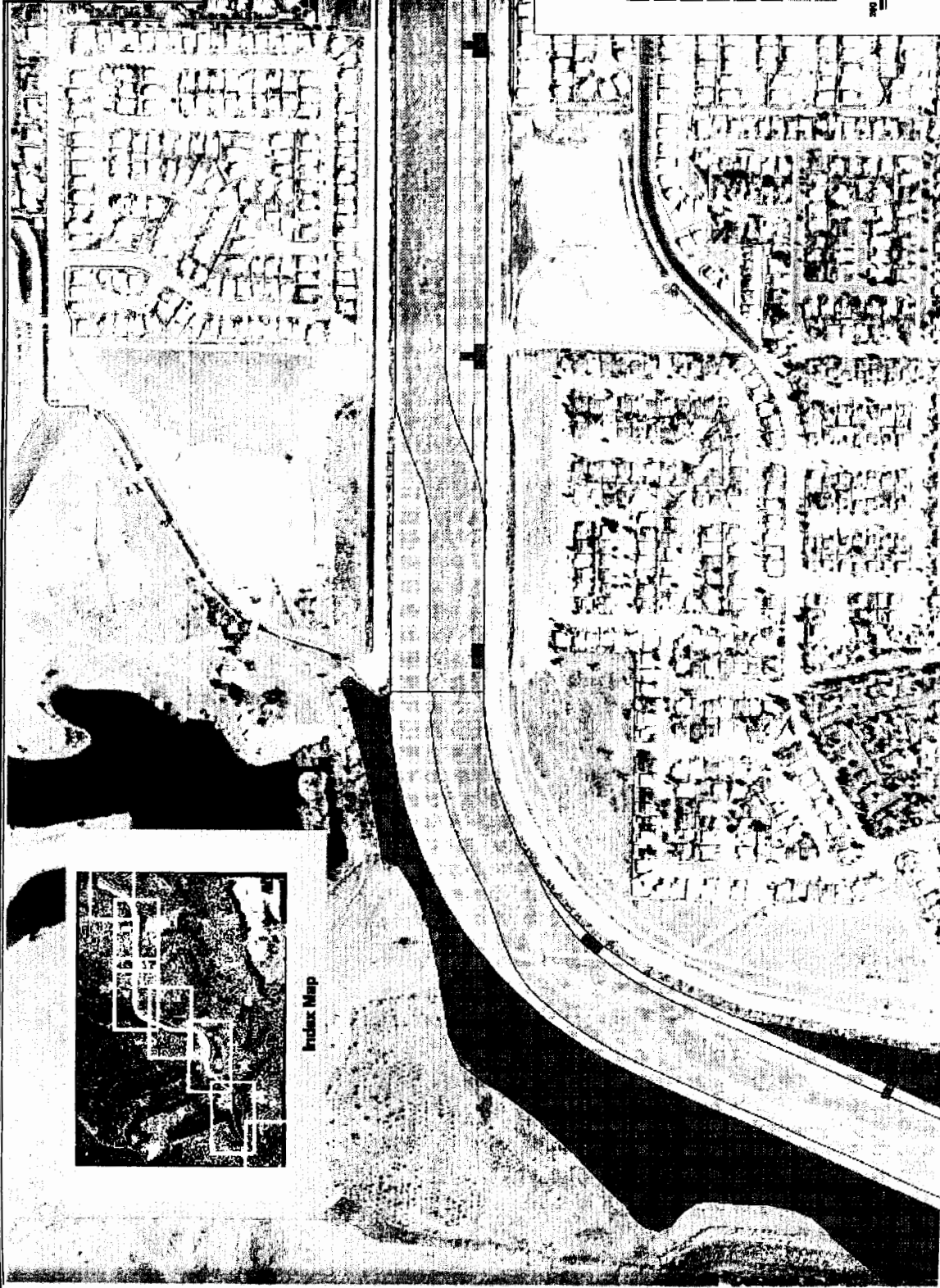
San Luis Rey River

Figure 4-3e
Recommended Plan
(71,200 cfs)



San Luis Rey River

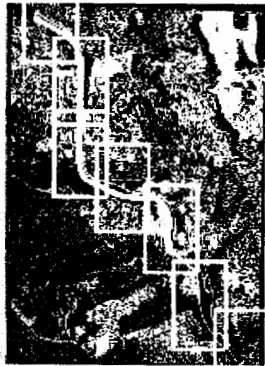
Figure 4-3f
Recommended Plan
(71,200 cfs)



Source: 2002 aerial photos from Aerial Photo Bank/Landis Corp.
Recommended Plan overlay adapted from Corps CAD file; State Plane (feet), NAD 83, Zone 6

San Luis Rey River

Figure 4-3g
Recommended Plan
(71,200 cfs)



Index Map

Legend

- Treatment
 - Annual Clearing
 - Rotation 1 (10-Year Rotation)
 - Rotation 2 (10-Year Rotation)
- Temporary Staging Area
- Access Road
- Bridge
- Unmaintained Vegetation
- Preservation/Compensation Area

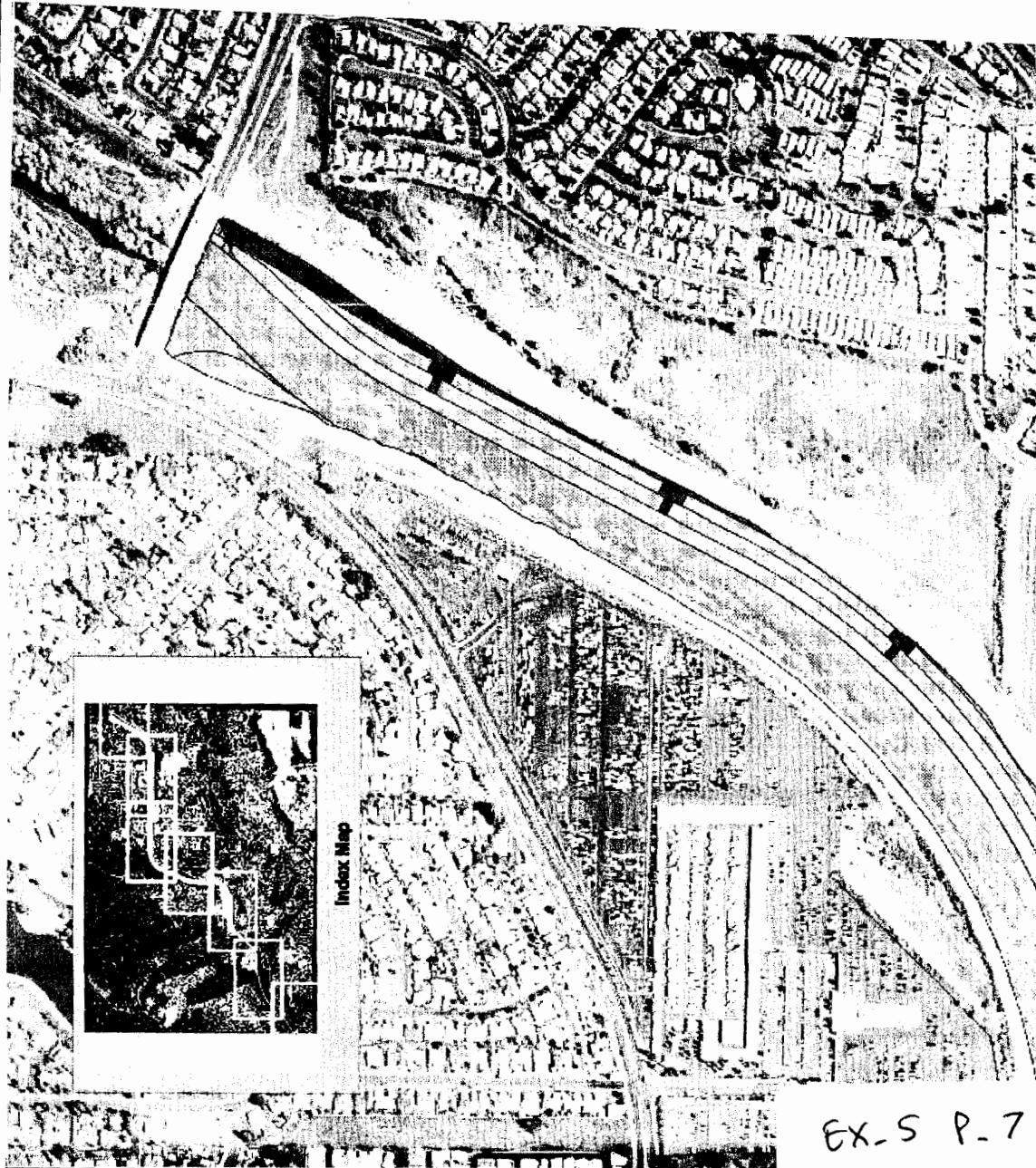


airial photos from Aerial Photo Bank/Landis Corp.
1 Plan overlay adapted from Corps CAD file
etj, NAD 83, Zone 6

EX-5 P. 6 of 7

San Luis Rey River

Figure 4-3h
Recommended Plan
(71,200 cfs)



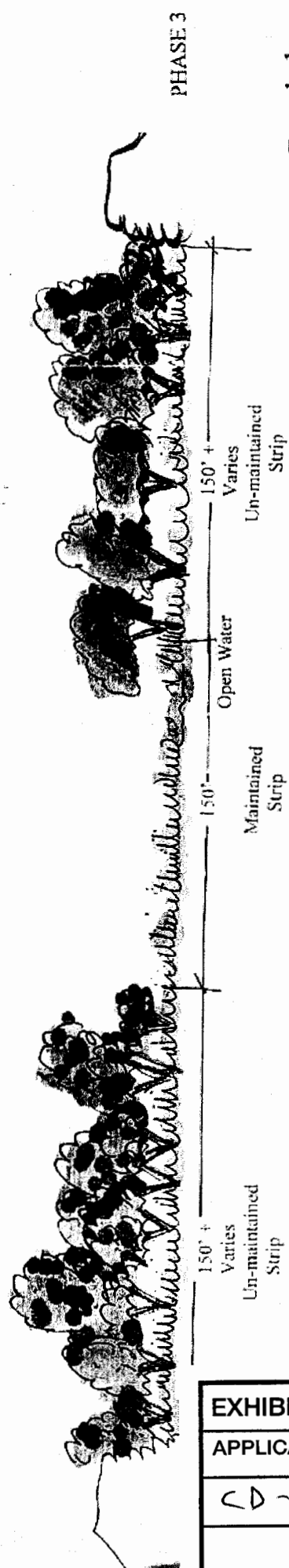
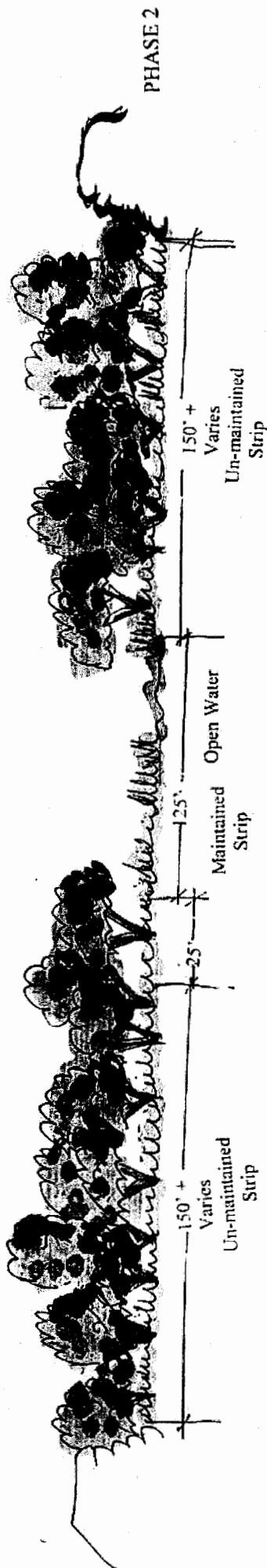
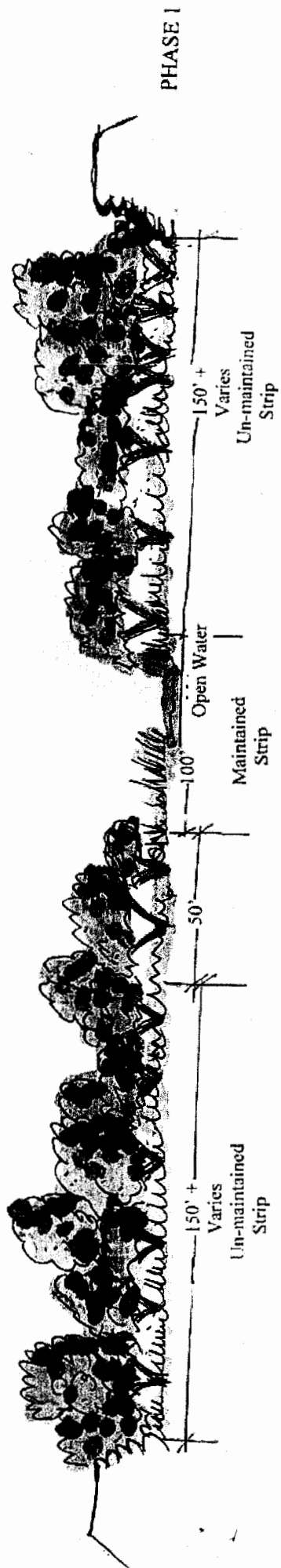
Legend

- Treatment**
 - Annual Clearing
 - Rotation 1 (10-Year Rotation)
 - Rotation 2 (10-Year Rotation)
 - Temporary Staging Area
 - Access Road
 - Bridge
 - Unmaintained Vegetation
 - Preservation/Compensation Area



Source: 2002 aerial photos from Aerial Photo Bank/Landis Corp
Recommended Plan overlay adapted from Corps CAD file; State Plane (feet), NAD 83, Zone 6
October 2008

EX-S P. 7 of 7

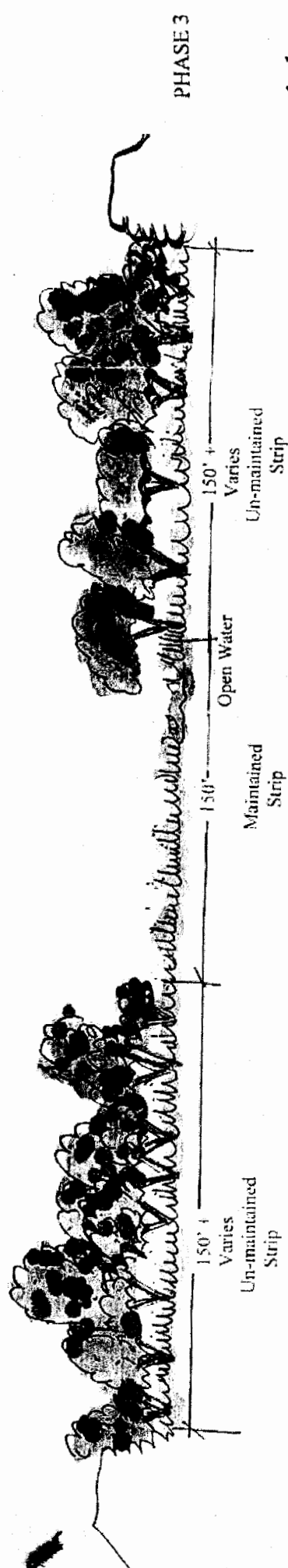
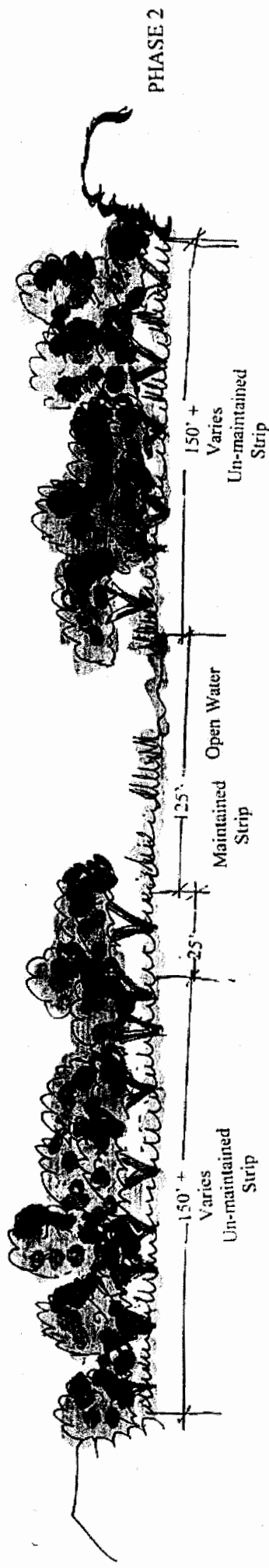
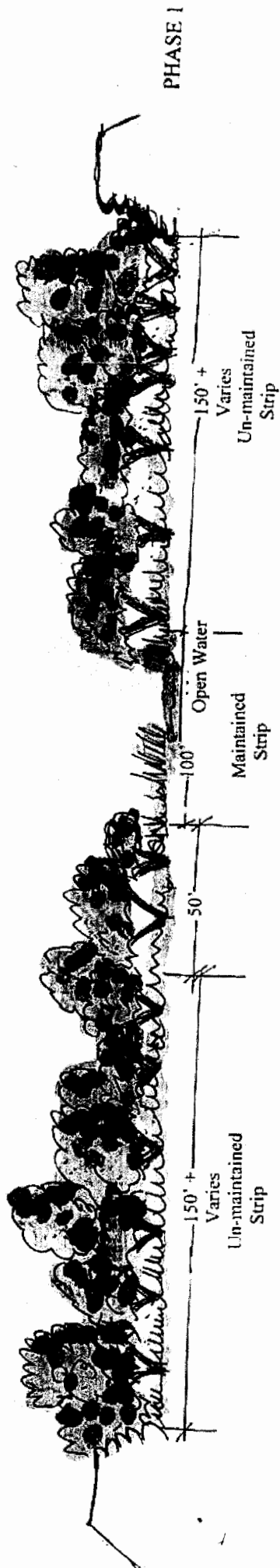


Reach 1
Sta. 42-128

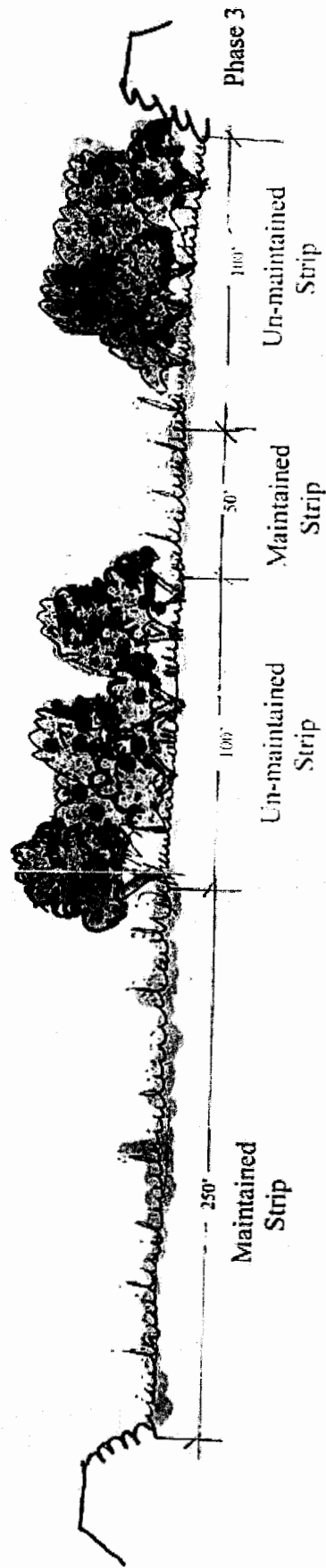
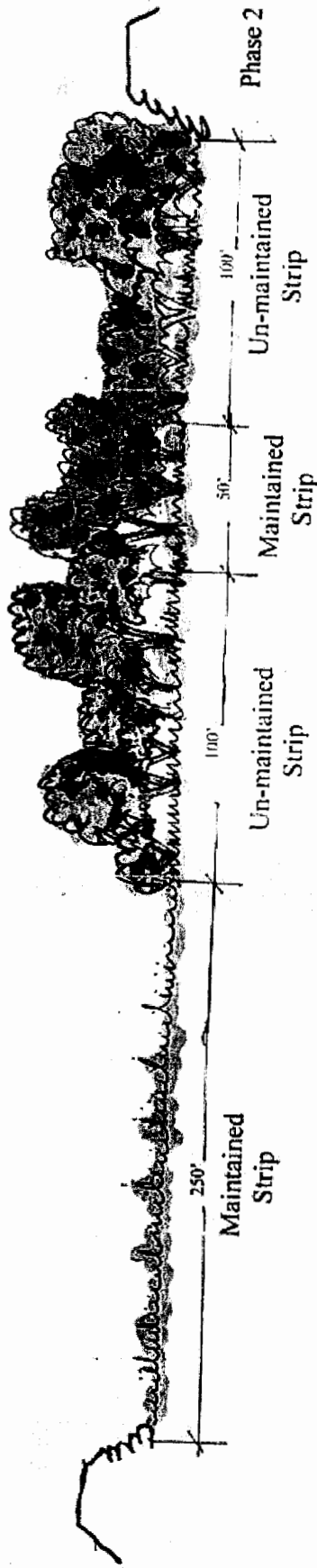
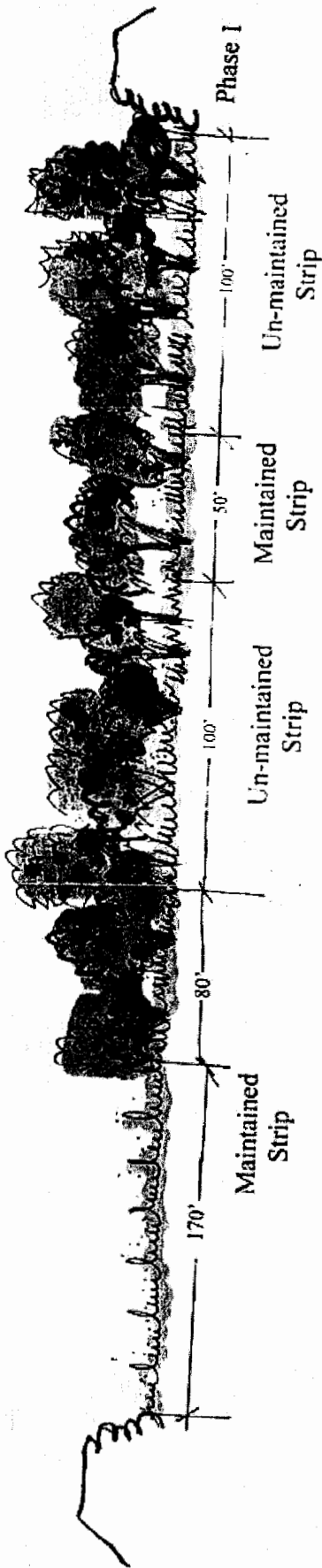
EXHIBIT NO. 6

APPLICATION NO.

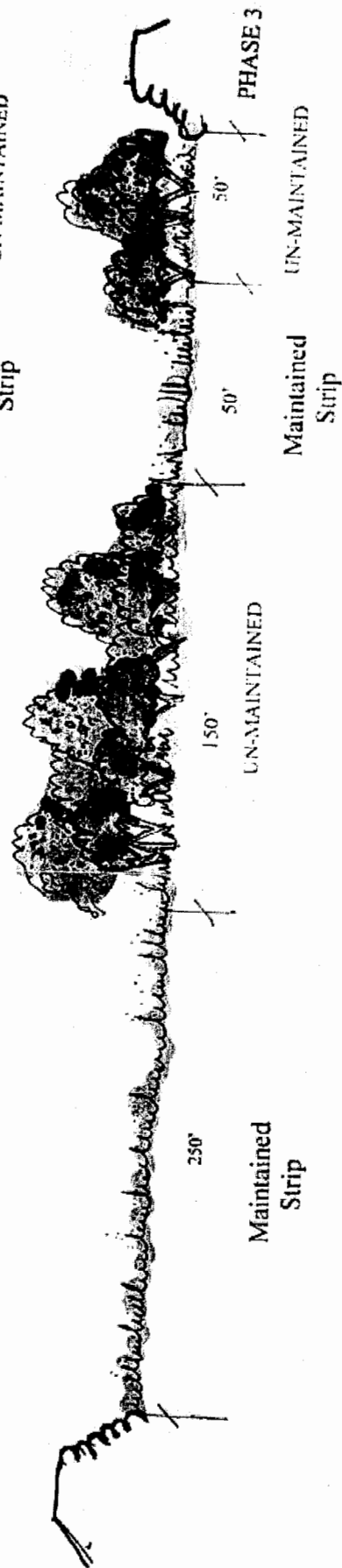
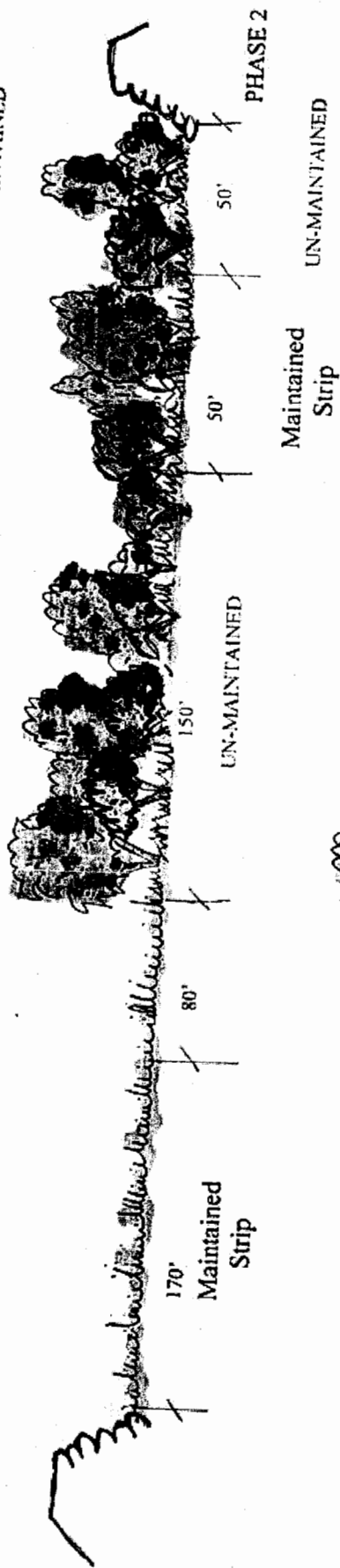
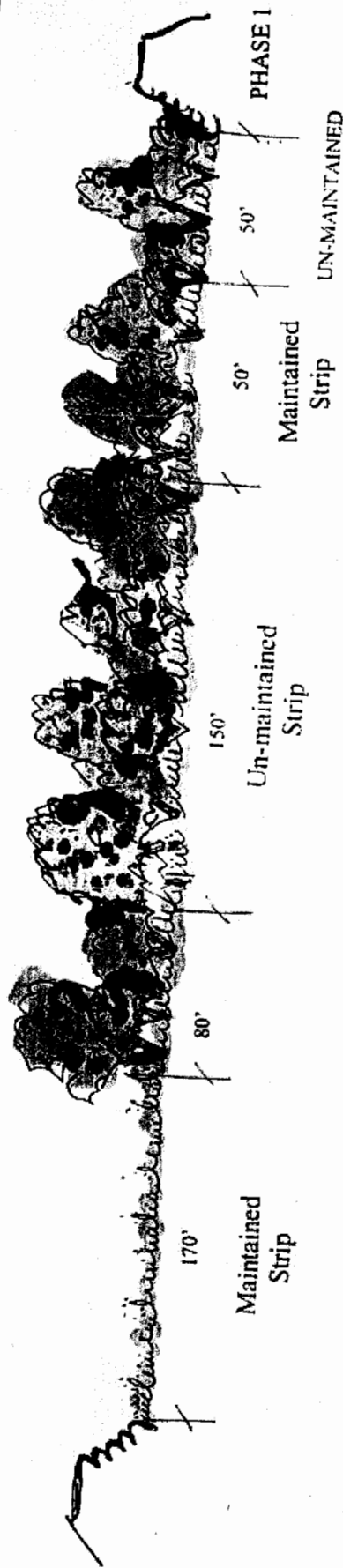
CD-043-07



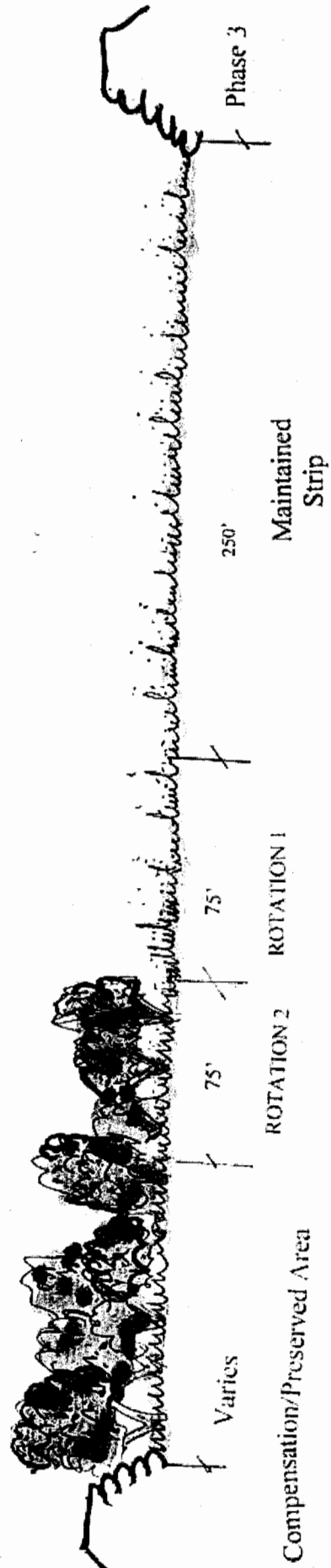
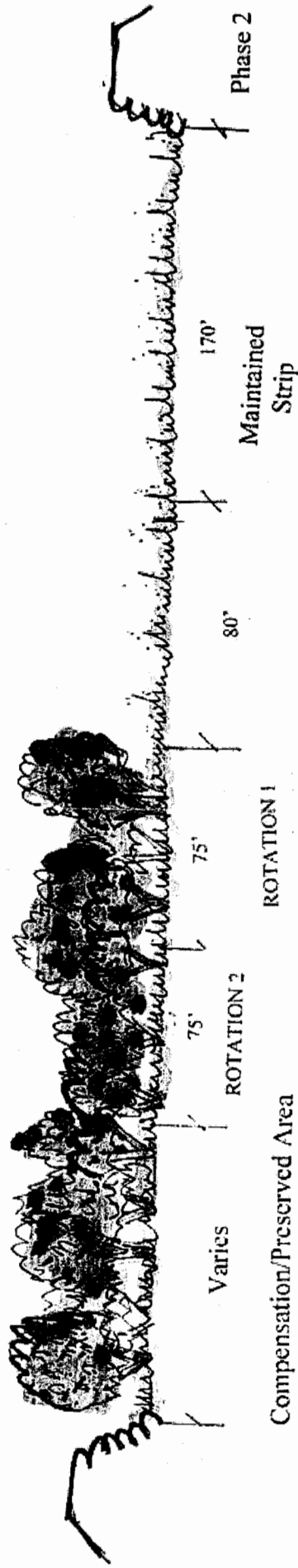
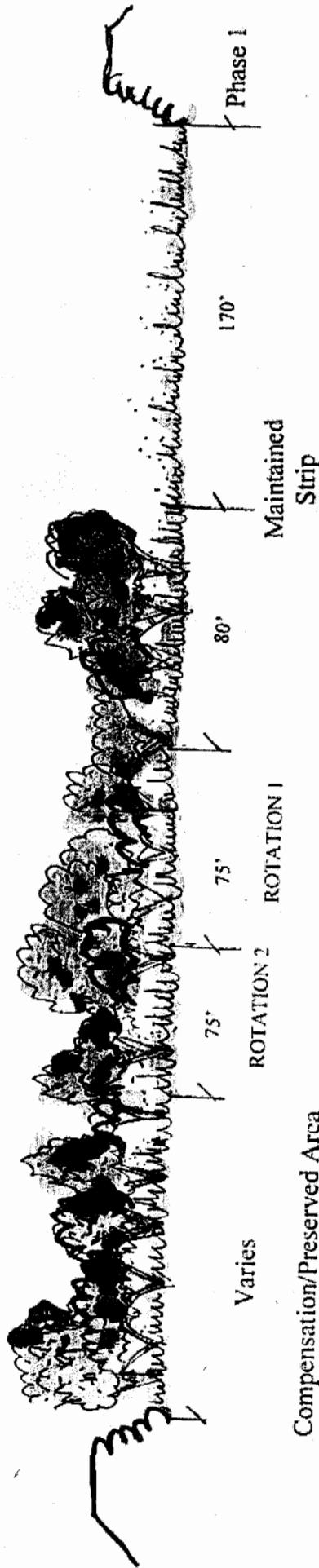
Reach 1
Sta. 42-128



Reach 2
Sta. 130-137



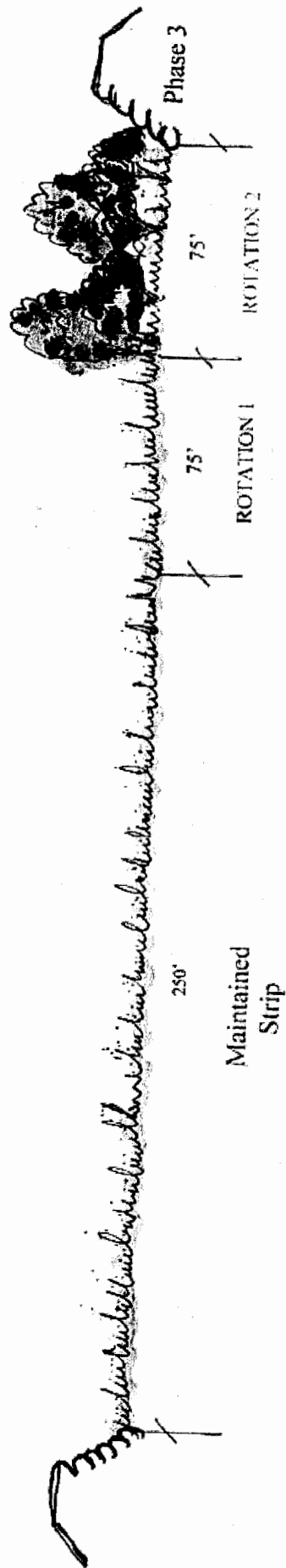
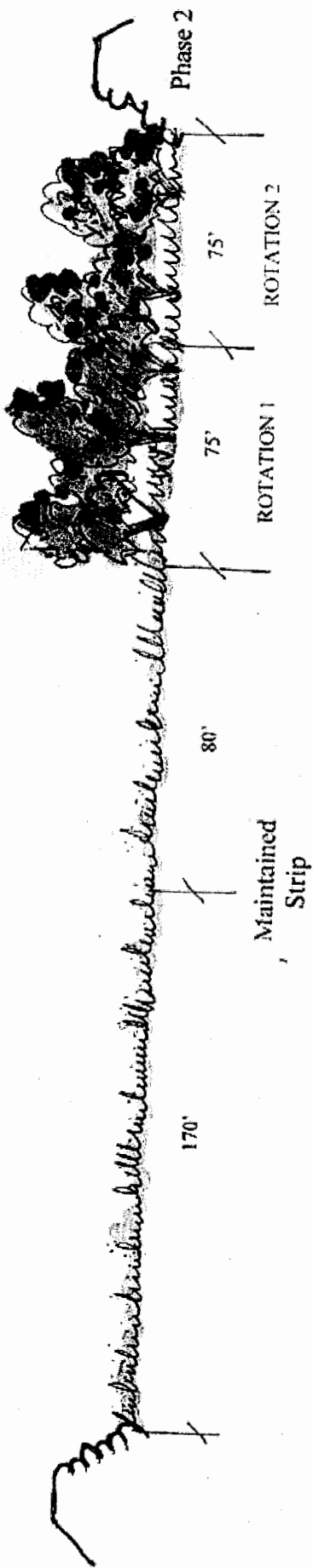
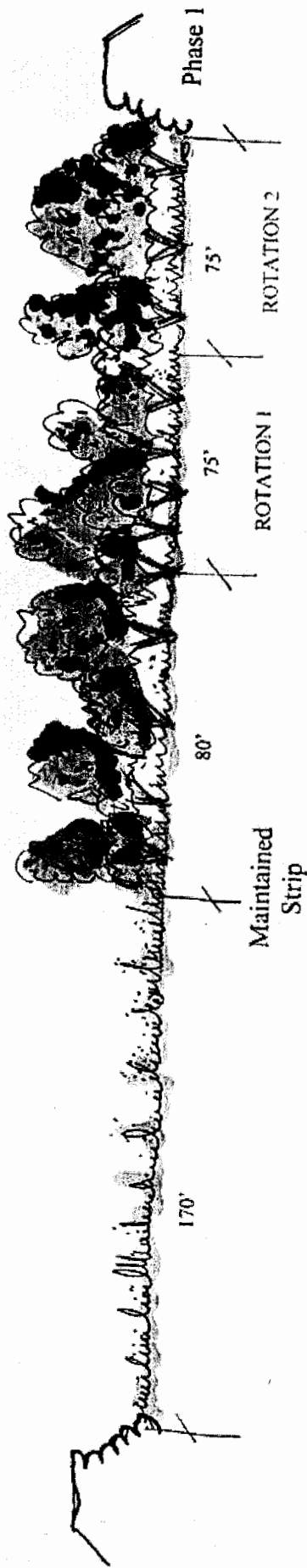
Reach 2
Sta. 137-148



Reach 2
Sta. 148-181

EX-6

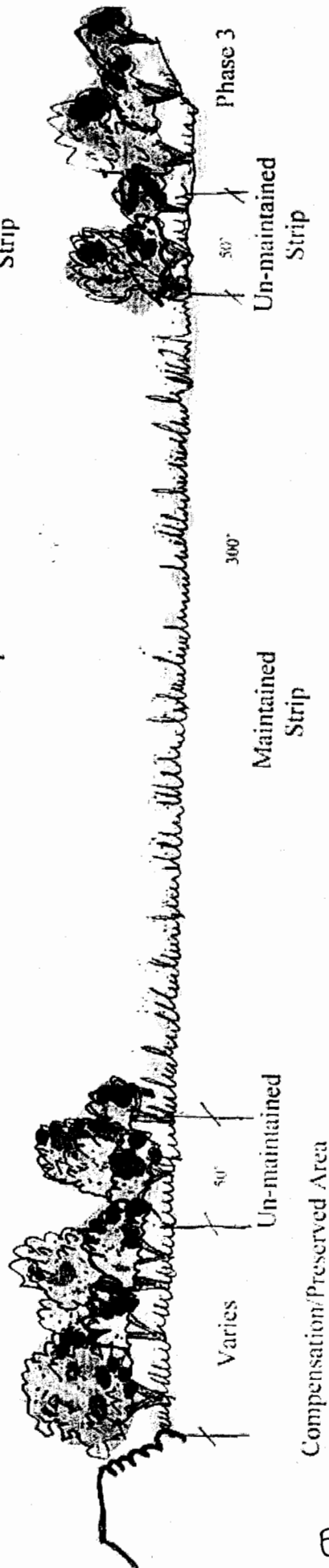
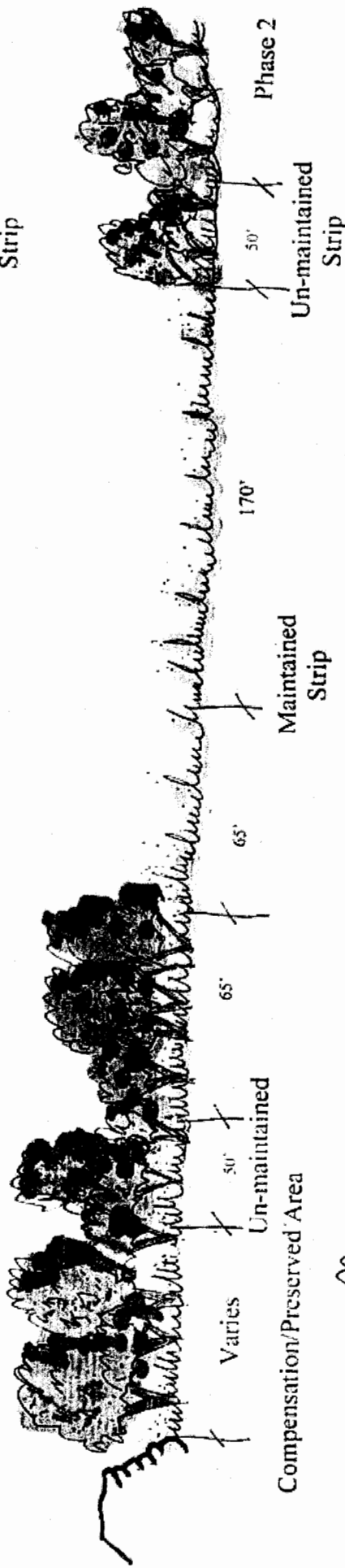
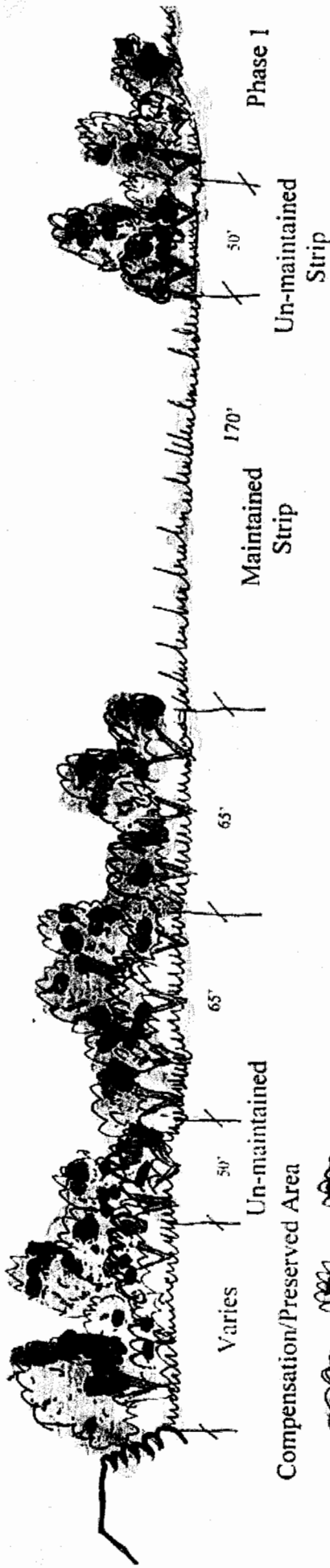
P. 5 of 10



Reach 3A
Sta. 181-215

EX-6

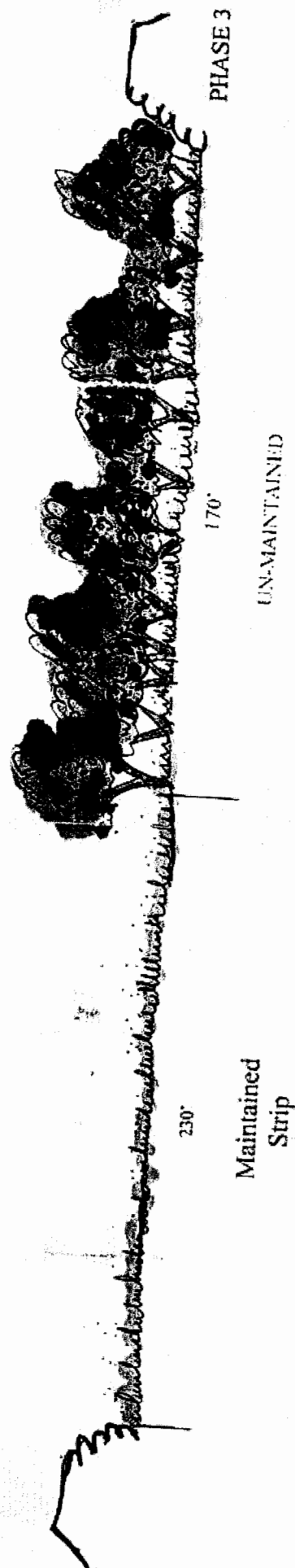
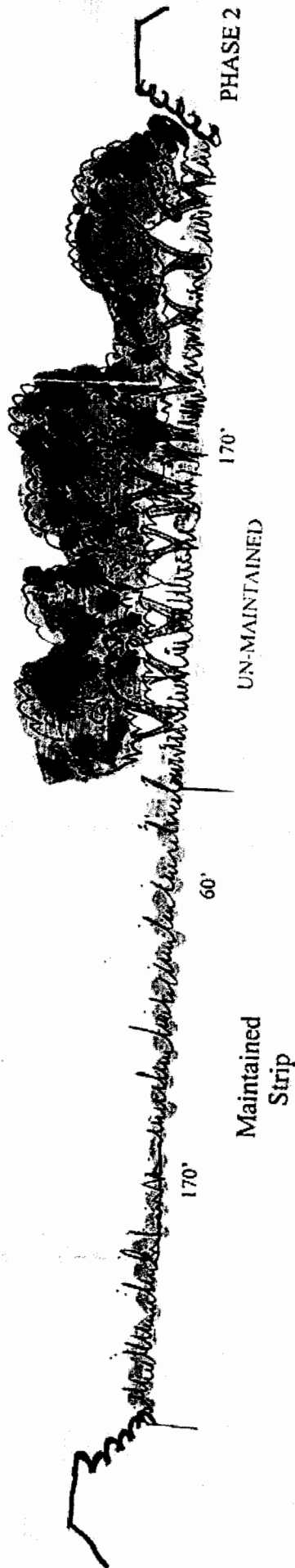
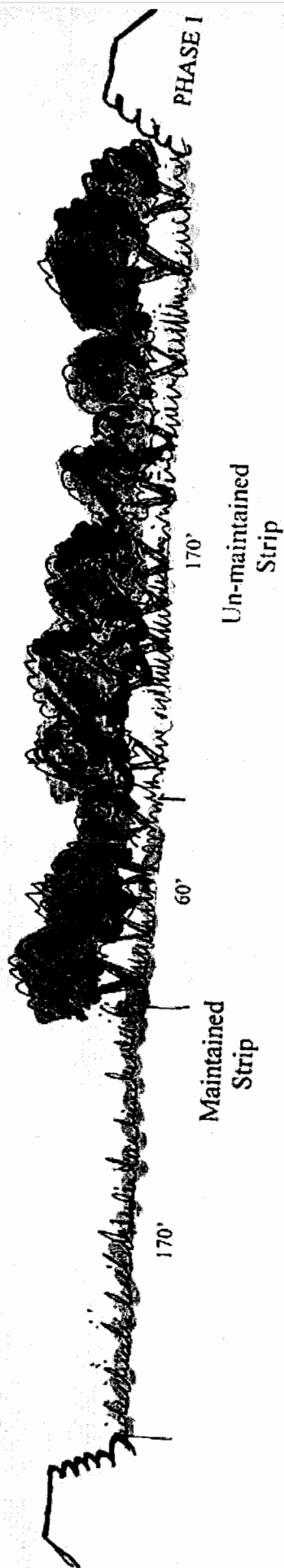
P. 6 of 10



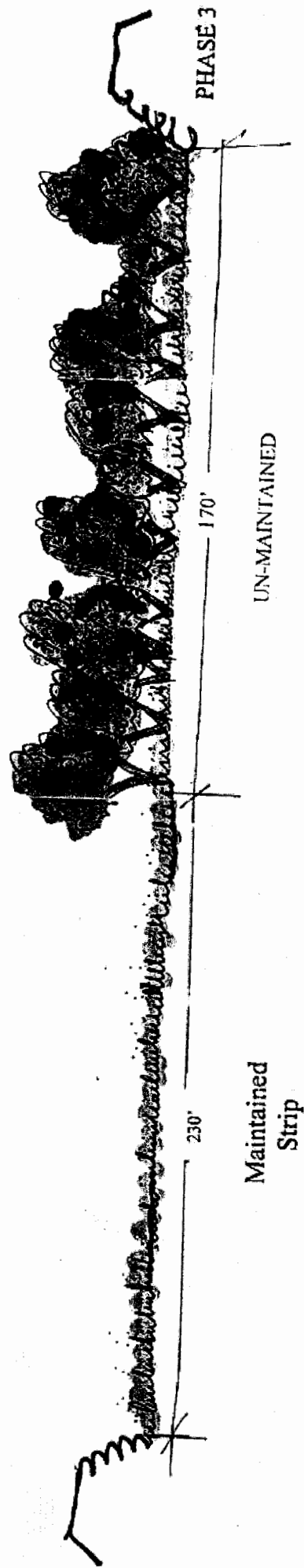
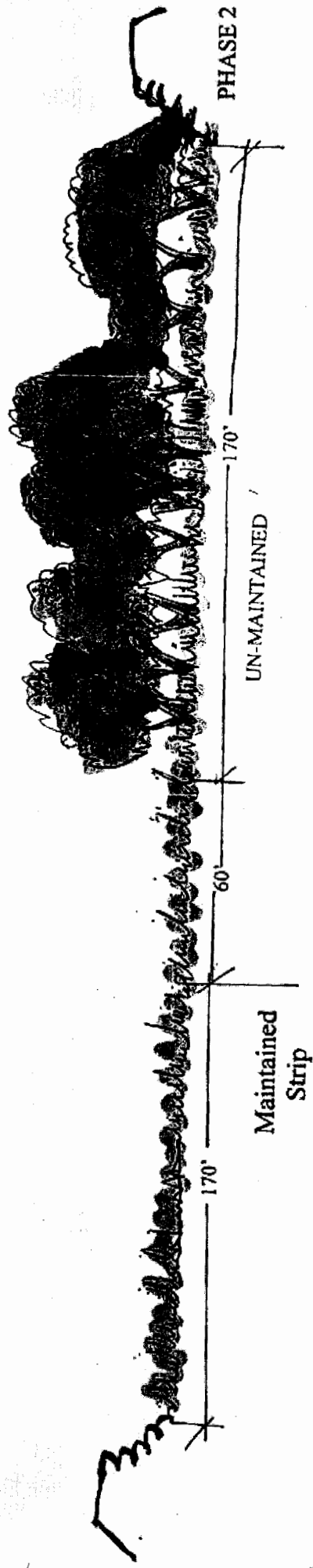
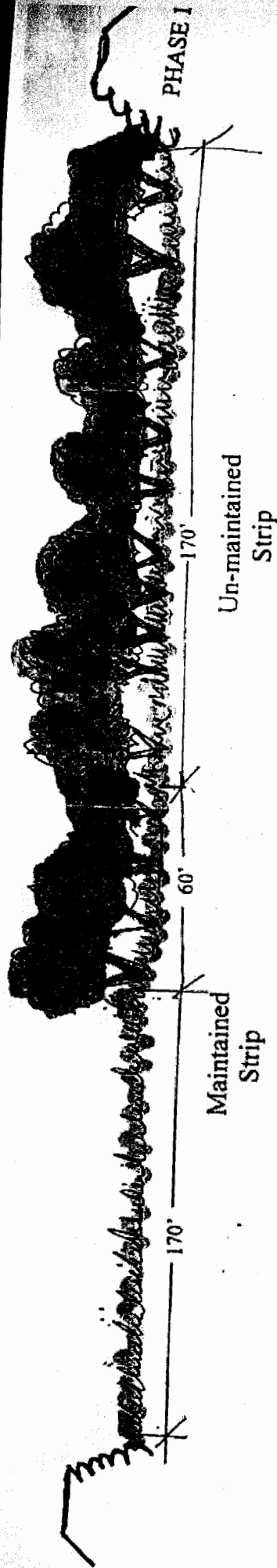
Reach 3A
Sta. 215-243

EX. 76

P. 7 of 10



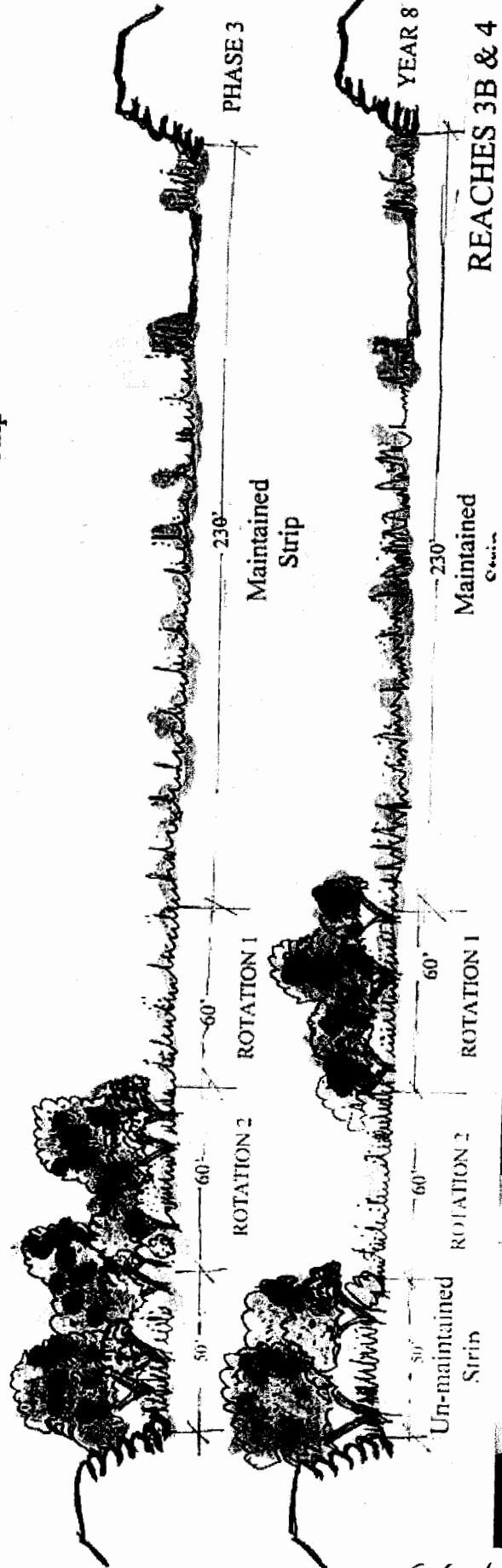
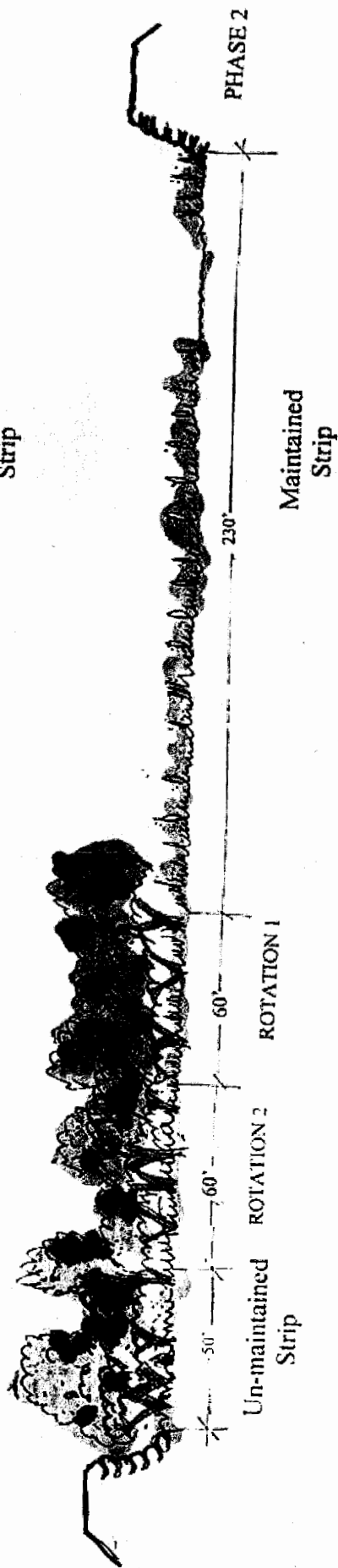
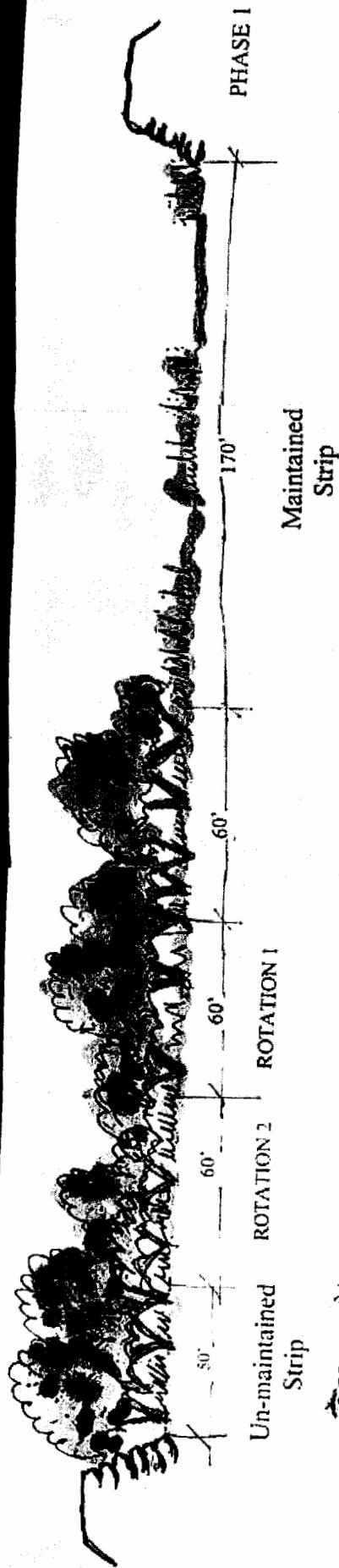
Reach 3A
Sta. 243-256



Reach 3B
Sta. 256-263

EX-6

P. 9 & 10



REACHES 3B & 4

EX-6

Table 5-5a. Acreage of Vegetation Types Affected and Unaffected by the Alternative 11 and 10 (71,200 cfs)

Management Activity - Vegetation Type & Habitats	Coastal Sage Scrub (CSS)	Giant Reed (<i>Arundo</i> sp.) [A]	Freshwater Marsh [FWM]	Non-Native Vegetation and Disturbed Lands [H] + [DL]	Mudflat Scrub [MS]	Sand Bar [SB]	Open Water [OW]	[FWM] - [WR1] (<4yrs)	Willow Riparian 4-5 Years [WR2]	Willow Riparian 6-8 Years [WR3]	Willow Riparian >8 Years [MWR]	Unclassified [U]	TOTAL
A) Cleared annually	0	7.3	14.6	3.5	28.2	4.5	3.7	21.1	8.7	2.5	83.4	0.8	178.3
B) 1 st Rotation (and every 10 years thereafter)	0	0.9	1.5	0	3.3	0.1	0	1.9	4.2	0.5	12.1	0	24.5
C) 2 nd Rotation (year 6 and every 10 years thereafter)	0	0.9	2.2	0.2	2	0.2	0	1.3	3.4	0.2	14.4	0	24.8
D) Temporary staging/ access for initial clearing*	0	0.5	0.1	0	0.6	0	0	0.2	0.4	0	1.8	0	3.6
E) Bridges cleared annually	0	0	0	1.3	0	0.1	0	0.1	0	0	0.1	0	1.6
Total Acres Affected	0	9.6	18.4	5	34.1	4.9	3.7	24.6	16.7	3.2	111.8	0.8	232.8
Total Acres Unaffected	0.6	14.1	2.2	6.7	27.2	0.7	3.1	6.6	1.5	3	127.4	3.2	196.3
Grand Total Acreage **	0.6	23.7	20.6	11.7	61.3	5.6	6.8	31.2	18.2	6.2	239.2	4	429.1

Source: USACE, 2002b. Does not include detention/mitigation ponds because they are unaffected by the Proposed Action.

*Temporary in-channel staging is not likely necessary for Alternative 11 vegetation maintenance since the plan objective would not involve the loading and hauling of chipped material to a landfill. Temporary in-channel staging may be necessary for sediment.

**Total unaffected and total affected add up to approximately 429 acres. Differences of 0.1 to 0.2 acres in totals are due to rounding errors. Total acreage does not include detention/mitigation ponds, which are unaffected by the Alternative 11 and 10.

EXHIBIT NO. 7
APPLICATION NO.

CD-043-07

Table 7-2. 2006 Amended Final Biological Opinion Conservation/Minimization Measures and Terms and Conditions.

Conservation/Minimization Measure	Terms and Conditions
N/A	<p>1. The Corps, City and Service shall meet annually to ensure that only the minimum amount of vegetation clearing necessary to achieve the appropriate level of flood protection for each construction phase and future operations and maintenance is done in the optimal configuration that minimizes potential impacts to the vireo, flycatcher, gnatcatcher and arroyo toad the maximum extent practicable. The Corps and/or City shall implement all practicable minimization measures identified by the Service, Corps and/or City.</p>
<p>1. Vegetation and sediment removal for project construction, operations and maintenance will avoid the flycatcher territories mapped in 2003 in reach 3a; and will include two, 60 to 75-foot-wide, strips of vegetation that will be cleared (i.e., mowing, chipping, shredding) every 10 years, with a 5-year lag between the two, to reduce the width of the annually cleared area. Prevention of disturbance and trampling of riparian vegetation outside of the work zone, all riparian habitat areas receiving action (maintenance), as well as the unmaintained cottonwood/willow/mulefat vegetation areas will be accomplished by the Geographic Information System (GIS)/Global Positioning System (GPS) demarcating procedure described in the following: The areas to receive the action (maintenance) as well as the unmaintained areas will be hand mapped by a qualified biologist experienced with vireo, flycatcher, and riparian habitats, digitized into a GIS, GPS northings and eastings data points downloaded into a contemporary model (less than 5 years old) hand held GPS unit, developed into a shapefile, and field verified. The action (maintained) and unmaintained areas will be identified and demarcated by the use of flagging and taping in concert with the field verified GPS northings and eastings. This procedure will be under the direct supervision, at all times, by a qualified biologist experienced with vireo, flycatcher, and riparian habitats, GIS/GPS cartographic specialists, and a hydrologist familiar with the flood conveyance requirements, prior to construction for the initial clearing of vegetation. Contractors will be informed and educated of the significance of identified and</p>	<p>2. Conservation Measure 1 shall be modified to require use of the GIS/GPS demarcating procedure for: a) Phases 1, 2, and 3 of the initial vegetation and/or sediment removal (i.e., construction); and b) any subsequent mechanized exotic plant, vegetation and/or sediment removal necessary in the future (i.e., operations and maintenance), including access routes and staging areas, to prevent additional impacts. The construction contractor will be held to terms of the contract which will specify areas to be off-limits to all personnel and equipment. The GIS/GPS demarcating procedure implemented to identify and demarcate the action areas by the use of flagging and taping in concert with the field verified GPS northings and eastings, shall be in place a half to full day in advance of the mowing, chipping, clearing, and/or sediment removal operations. Furthermore, the same GIS/GPS demarcating procedure will be implemented and used for all exotic plant eradication of patch size greater than 0.25 acres. The flagging and taping will be kept in place and in good repair until completion of work, at which time it will be removed. The Service will be notified at the earliest practicable time if impacts occurred outside of the flagged or taped limits, work shall be stopped and the Service notified immediately (USFWS Clarification of Terms and Conditions, May 23, 2006).</p> <p>All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas outside of waters of the United States within the flagged, tapped</p>

Conservation/Minimization Measure	Terms and Conditions
<p>demarcated areas (e.g., flagging and taping) in relation to habitat preservation by the qualified biologist. The alignment will be optimized in the field to further reduce impacts to riparian habitat. Decisions regarding adjustments to the alignment will be made by the Corps with input of the hydraulic engineer, the qualified biologist, and a GIS/GPS cartographic specialist, and will be based on field observations and the most recent survey information. Adjustments to the alignment will be documented. An element within the contract task order is the requirement to have GIS/GPS capability for identifying and demarcating the alignments. A Corps biologist(s) or its designated contract biologist will be on site to monitor the project site during the contracted vegetation mowing, chipping, and shredding. Though GPS accuracy can be affected by the inclement conditions, the use of the GIS/GPS demarcating procedure will continue on days of inclement weather."</p>	<p>and/or fenced project impact limits. These designated areas shall be located in previously compacted and disturbed areas in such a manner as to prevent any runoff from entering waters of the United States, and shall be shown on the construction plans. If dispensing of fuel, oil, or coolant is necessary within the flood control channel because of the distance necessary for equipment to reach the limited access points, these activities may occur within the channel, but outside the low-flow channel or any open waters areas, using the Best Management Practices (BMP's) described below. As part of the project Plans and Specifications document, the Corps requires the construction contractor to address environmental protection and pollution control using BMPs as requirements prescribed under the Storm Water Pollution Prevention Plan (SWPPP) for potential hazardous or contaminated material. This is a mandatory requirement of the Plans and Specs and is further implemented into the contractual agreement as part of the projects' Clean Water Act Section 402 permit requirement. Areas in which work will be accomplished, containment areas will be created using, as an example, berms and heavy duty liners and spill kits within immediate proximity. BMPs include such actions as having staged on site, hazardous waste clean-up equipment and spill kits, using the appropriate size and gauge drip pans and absorbent diapers. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction plans.</p> <p>The Corps and/or City shall provide for a monitoring biologist(s) approved by the Service to be onsite during: a) exotic plant removal; b) risk reduction mowing and chipping; c) Phases 1-3 of the initial vegetation and/or sediment removal (i.e., construction); and d) any subsequent vegetation and/or sediment removal necessary in the future (i.e., operations and maintenance). The biologist must be knowledgeable of vireo, flycatcher, gnatcatcher and arroyo toad biology and ecology. The Service will provide the Corps with a list of qualified biologist with Section 10(A)(1)(a) permits, so that the Corps may select and notify the Service of the selection. Any changes will</p>

Conservation/Minimization Measure	Terms and Conditions
	<p>be discussed between the Corps and Service. The Corps and/or City shall submit the biologist's name, address, telephone number, and work schedule on the project to the Service at least seven days prior to initiating each exotic plant, vegetation and/or sediment removal effort during project construction or operations and maintenance. The Corps will also provide the Service a list of possible biologists who the Corps expects to monitor construction activities over the next several years and provide their qualifications. Any changes will be discussed between the Corps and the Service. The biologist shall perform the following duties:</p> <ol style="list-style-type: none"> Be onsite daily to oversee all contractors and construction personnel to ensure compliance with the project description and conservation measures as modified by the terms and conditions of this biological opinion. Report any violation to the Service within 24 hours of its occurrence. Submit monthly reports (including photographs of impact areas) to the Service during: a) exotic plant removal; b) risk reduction mowing and chipping; c) Phases 1-3 of the initial vegetation and/or sediment removal; and d) any subsequent vegetation and/or sediment removal necessary in the future. The monthly reports shall consist of a concise account documenting: a) the acreage and location of exotic plant, vegetation and/or sediment removal, either by graphic map or table or other convenient means; b) that impacts did not occur in riparian/wetland habitat to be avoided; c) general compliance with all conservation measures and terms and conditions; and d) the number and location of all incidental sightings of vireo, flycatcher, gnatcatcher or arroyo toads observed and a description of how any of these species were affected. Submit final reports (including photographs of impact areas) to the Service within 60 days of completion of: a) exotic plant

Conservation/Minimization Measure	Terms and Conditions
	<p>removal; b) risk reduction mowing and chipping; c) Phases 1-3 of the initial vegetation and/or sediment removal; and c) any subsequent vegetation and/or sediment removal necessary in the future. The final reports shall document: a) the acreage and location of exotic plant, vegetation and/or sediment removal; b) that impacts did not occur in riparian/wetland habitat to be avoided; c) general compliance with all conservation measures and terms and conditions; and d) the number and location of all vireo, flycatcher, gnatcatcher or arroyo toads observed and a description of how any of these species were affected.</p>
<p>2. Areas of exotic plant species removal within unmaintained areas or compensation sites will be replanted with native riparian or upland vegetation suited to the existing hydrologic conditions. Areas that are temporarily disturbed from staging or access will also have substrate conditions restored and be replanted/reseeded with native riparian vegetation suited to the existing hydrologic conditions. Best management practices to promote replanting success, as described in the Corps' June 24, 2004, updated project description, will be used. All exotic and invasive species will be intensively controlled in these areas until native vegetation is reestablished. The success criteria for this replanting will be 50 percent of planted trees and shrubs and 75 percent cover of native species at the end of 5 years. If the success criteria are not met, within the first 5 years, the portion of the planted area that failed will be replanted/reseeded. After 5 years, if the planted/seeded area is not successful, efforts to revegetate may cease.</p>	<p>3. Conservation Measure 2 shall be modified to require the Corps to submit draft riparian/wetland restoration plans to the Service for approval at least 30 calendar days prior to reinitiating exotic plant removal after risk reduction mowing and chipping. These plans shall address all of the restoration areas associated with the exotic plant removal described in Conservation Measure 2. The draft plan shall include the following information and conditions:</p> <ul style="list-style-type: none"> a. All final specifications and topographic-based planting and irrigation plans (with 0.5-foot contours and typical cross-sections) for riparian/wetland restoration. Planting and irrigation shall not be installed until the Agencies have approved of the plans. All planting shall be installed in a way that mimics natural plant distribution, and not in rows; b. Planting palettes (plant species, size and number/acre) and seed mix (plant species and pounds/acre). Unless otherwise approved by the Agencies, only locally native species (no cultivars) obtained within the San Luis Rey watershed as available from as close to the project area as possible shall be used. The source and proof of local nativeness of all plant material and seed not collected from the impact areas shall be provided. Specifications for any proposed use of plants and cuttings transplanted from impacted portions of the channel, including an explanation of how areas to be used as a source for plants and cuttings will be chosen, will also be given. Collection of material

Conservation/Minimization Measure	Terms and Conditions
	<p>from the unmaintained portions of the channel shall require approval, by the Service, prior to collection;</p> <p>c. Submittal of as-built drawings of the riparian/wetland restoration planting, and irrigation to the Service within 120 days of completion;</p> <p>d. At the first and second anniversary of plant installation, all dead plants shall be replaced unless their function has been replaced by natural recruitment;</p> <p>e. A final implementation schedule that indicates when exotic plant removal, as well as riparian/wetland restoration planting and irrigation, shall begin and end. Restoration shall begin within 60 days of completing exotic plant removal. Any temporal loss of riparian/wetland habitat caused by delays in riparian/wetland restoration shall be offset through riparian/wetland creation at a 0.5:1 ratio for every 6 months of delay (i.e., 1:1 for 12 months delay, 1.5:1 for 18 months delay, etc.);</p> <p>f. Five years of success criteria for riparian/wetland restoration areas including: separate percent cover criteria for herbaceous understory, shrub midstory, and tree overstory, and a total of 90-100 percent absolute cover for all 3 layers at the end of 5 years; evidence of natural recruitment of multiple native species; 0 percent coverage for giant reed (<i>Arundo donax</i>) and saltcedar (<i>Tamarix ramosissima</i>), and no more than 5 percent coverage for other exotic/weed species;</p> <p>g. A minimum five years of maintenance and monitoring of riparian/wetland restoration, unless success criteria are met earlier and all artificial water supply has been cut off for at least two years. Maintenance and monitoring of riparian/wetland restoration shall continue until success criteria are achieved;</p> <p>h. A vegetation monitoring plan with a map of proposed</p>

Conservation/Minimization Measure	Terms and Conditions
	<p>sampling locations. Stratified-random sampling shall be used for all quantitative surveys;</p> <p>i. Contingency measures in the event of restoration failure; and</p> <p>j. Annual restoration maintenance and monitoring reports shall be submitted to the Agencies after the maintenance and monitoring period and no later than December 1 of each year.</p>
<p>3. Vegetation surveys will be completed every five years following the completion of the construction phase clearing to coincide with topographical surveys. Vegetation surveys will use current aerial photography and geographically referenced ground-truthing to delineate boundaries. Vegetation mapping will be similar to that performed in 2002 and will distinguish vegetation cover types within the project area from College Boulevard to the Pacific Ocean that includes all maintained areas as well as unmaintained areas, in-channel compensation sites and the five out-of-channel detention ponds. The mapping will document changes in habitat quality within each mapping unit based on vegetation characteristics used to define good riparian habitat and vireo or flycatcher habitat (e.g., composition, cover of dominant species, density, and structural diversity), based on the 2002 vegetation mapping criteria.</p>	<p>4. Conservation Measure 3 shall be modified to require the Corps and/or City to submit vegetation surveys and mapping to the Service by December 1 of each year these are done.</p>
<p>4. To minimize habitat impacts in rotationally cleared areas of the long-term operation and maintenance plan, leaf litter or small stems will be replaced after vegetation clearing and sediment removal in these areas to aid nutrient cycling and regrowth. This will be limited to areas that are identified during vegetation surveys and biological monitoring prior to clearing that is not dominated by exotic plant species. Native litter and biomass will be redistributed to any areas treated for exotic plant species removal, if native litter and biomass are available at the time such application would benefit native species recruitment. The appropriate volume or density will be estimated from litter in unaffected areas, but is generally 1 to 2 inches in depth.</p>	<p>N/A</p>

Conservation/Minimization Measure	Terms and Conditions
Conversely, vegetation and debris greater than 2 inches deep will not be allowed to remain in the channel.	
<p>5. Regular evaluations (i.e., annual maintenance inspections of flood control structural features, which will be completed by the Corps and the City) will be performed to determine if vegetation clearing or sediment removal are resulting in hydrologic alteration of surface water that, in turn, is resulting in excessive channel incision or other evidence of systemic scour or dewatering of vegetation over the length of the project. The City will also complete a careful evaluation of the occurrence and effect of scouring and/or dewatering on vegetation/habitat in the channel in the season following clearing of rotation 2 (i.e., projected to be 11 years after the initial clearing event), and every 5 years thereafter, in conjunction with the vegetation survey and topographic survey. In the event that excessive channel incision or other evidence of systemic scour of vegetation occurs, the City will consult with the Corps to implement appropriate measures.</p>	<p>5. Conservation Measure 5 shall be modified to require the Corps and/or City to perform monthly inspections of the flood control channel and restoration areas during construction, operations and maintenance and to submit annual reports with the results of monthly inspections to the Service by December 1. The frequency of monitoring may be modified if the Service concurs that previous monitoring indicates that monthly monitoring is unnecessary. The Corps and/or City shall consult with the Service regarding measures to be taken to address any problems identified by the inspections. Trash, other dumped debris, abandoned vehicles, equipment, homeless encampments, or other potential exotic rodent shelter shall be surveyed for and identified during monthly inspections. The Corps and/or City shall provide for the removal of trash, other dumped debris, abandoned vehicles, equipment, homeless encampments, or other potential exotic rodent shelter from the flood control channel and any restoration areas.</p>
<p>6. No new roads will be cleared for sediment removal. Trucks transporting sediment will be limited to existing access ramps and the maintained areas located at existing over-crossings.</p>	<p>6. Conservation Measure 6 shall be modified to require that no new roads, other than those identified in the Corps biological assessment (exhibit 10-5), will be constructed. Any modification will require a map be submitted to the Service for approval, prior to construction.</p>
<p>7. The Service will be notified 45 days in advance of scheduled sediment removal activities.</p>	<p>7. Conservation Measure 7 shall be modified to require that the Service shall be notified 45 days in advance of scheduled exotic plant, vegetation and/or sediment removal during the construction and operations/maintenance phases.</p>
<p>8. Sediment removal will follow Best Management Practices (BMPs) as prescribed under the Storm Water Pollution Prevention Plan. Consistent with Federal and State regulations, BMPs will be implemented to control the erosion of sediments into the water, prevent or contain spills from storage locations or equipment used</p>	<p>8. Conservation Measure 8 shall be modified to require that exotic plant, vegetation and/or sediment removal during the risk reduction mowing and chipping, and construction and operations/maintenance Phases 1-3 shall follow BMPs as prescribed under the Storm Water Pollution Prevention Plan.</p>

Conservation/Minimization Measure within or adjacent to the river channel and other actions that may affect water quality. The plan will be implemented during every vegetation clearing and sediment removal event.	Terms and Conditions
<p>9. The Corps will continue to implement a cowbird trapping program as follows:</p> <p>a. The cowbird-trapping program shall consist of continuation of the methods used previously within the flood control portion of the San Luis Rey River. The Corps will review the cowbird trapping methodologies utilized over the years within and outside the project area (e.g., Prado Basin). The Corps will develop a protocol outlining the parameters to be utilized for cowbird trapping as part of this biological opinion. The trapping protocol will be provided to the Service for review and approval and appended to the final biological opinion. If a more effective alternative cowbird control method is developed and approved by the Service, the methodology may be revisited by agreement of all affected parties (Corps, Service, City, etc...). Until the protocol is developed and approved, the Corps will continue cowbird trapping utilizing methodologies similar to previous seasons.</p> <p>b. The Corps and City will provide for a qualified operator to continue (without missing a season) to maintain and operate the cowbird management program in perpetuity within the flood control portion of the San Luis Rey River from April 1 - June 30 annually. It is imperative that the trapping start April 1 to avoid nest parasitism. In year 2003 where cowbird traps were initiated during the standard period, there were no parasitism events. However, in year 2002 where cowbird traps were initiated 30 days late (May 1), three parasitism events were recorded.</p> <p>c. A cowbird trapping program may cease after discussion with the Service, if, over time, the biological monitors conducting the cowbird trapping and vireo and flycatcher monitoring find no female</p>	<p>9. Conservation Measure 9 in total shall be modified to implement the cowbird trapping conditions as described in Enclosure A.</p> <p>Conservation Measure 9b shall be modified to require the Corps and City to provide for a qualified, permitted biologist approved by the Service to continue (without missing a season) to maintain and operate the cowbird management program in perpetuity.</p> <p>10. Conservation Measure 9c shall be modified to require cowbird trapping to be implemented annually, starting in the spring of 2005, regardless of the status of the construction activities.</p>

Conservation/Minimization Measure	Terms and Conditions
<p>cowbirds are being captured in the traps, no cowbirds in the area, and no cowbird parasitism is occurring to vireo and flycatcher. However, should the above condition be met and cowbird trapping be ceased, nest monitoring must occur annually to ensure that cowbirds have not reappeared. If cowbird nest parasitism or cowbirds are found within the project area, the program must be reinstated at an appropriate level, as approved by the Service.</p>	<p>d. Following 15 years after the flow conveyance of 71,200 cfs is achieved (to coincide with 2 complete rotations cycle clearings), the City will have the option of conducting an evaluation of cowbird nest parasitism rates. The evaluation would entail conducting vireo nest monitoring for 5 years in place of cowbird trapping. The intent of the nest monitoring is to obtain data to ascertain the cowbird nest parasitism rates within the project area and the frequency of trapping necessary (ex. every 2 years, 4 years, etc). If, at any time during this 5-year evaluation period, cowbird nest parasitism rates exceed 5% of vireo nests, 1) the cowbird trapping program may be reinitiated and vireo nest monitoring suspended, or 2) nest monitoring may continue in absence of cowbird trapping in order to complete the 5-year evaluation, with agreement of affected parties. At the completion of the 5-year evaluation, vireo nest monitoring would cease. Results of the evaluation would be used to refine or modify the trapping program to reflect the most efficient and economically feasible methods. If conditions are such that parasitism rates remain below 5% of nests throughout this 5-year period (in absence of trapping), cowbird trapping or vireo nest monitoring may be initiated at a lesser frequency (ex. every 2 years, 4 years, etc) with agreement of affected parties.</p> <p>e. Eight traps shall be placed within avoided riparian/wetland habitat throughout the project area. The use of any particular trap may cease if no female cowbirds are detected in that individual trap within an entire trapping season as long as there is no evidence of nest parasitism in the coverage area of the individual trap (approximately half the distance to the next trap(s)). However, the biological monitors</p>

Conservation/Minimization Measure	Terms and Conditions
<p>conducting the cowbird trapping and vireo and flycatcher monitoring will need to assess whether this is a function of location and/or vandalism of the trap and whether relocation is the appropriate response, rather than elimination of the trap. Should numbers of cowbirds increase in the nearby traps that remain, the individual trap that was removed would need to be restarted.</p> <p>f. Each trap must be checked at least once every 24 hours and all non-target birds shall be recorded and released from traps immediately upon their discovery. Any and all traps should be moved, temporarily shut down or more frequently visited whenever necessary to maximize trapping effort efficiency or to reduce real or potential impacts to non-target species.</p> <p>g. Observations of all marked or banded cowbirds will be recorded and reported to the U.S. Geological Survey Bird Banding Lab ([http://www.pwrc.usgs.gov/bbl/] or 1-800-327-BAND) as soon as possible. Once the necessary data (e.g., band number, location and sequence of color bands or other markers) are noted, marked or banded male cowbirds should be released at the point of capture. All marked or banded females and all unbanded cowbirds will be euthanized at the point of capture unless alternative measures were previously authorized by the Service.</p> <p>h. Harm or death of incidentally captured individual non-target birds will not exceed two percent of total captures of individual non-target birds on an annual basis. All non-target captures (number of individuals by species) must be reported to the Service monthly. All non-target mortality must be reported to the Service immediately with an assessment of the cause of mortality. Such reports will be reviewed by the Service in cooperation with the Corps, City, and cowbird trap operator(s) to determine if cowbird trap(s) should be relocated for the remainder of the season. If a mortality of any rare, listed, or otherwise sensitive species of bird occurs, the continuation of the program will cease until the cause of the mortality is identified and any problems</p>	

EX-8 P-10 & 19

Conservation/Minimization Measure	Terms and Conditions
<p>with methodology are rectified. The Corps will take measures to ensure that no non-target birds die due to lack of food or water or unclean conditions.</p> <p>i. The Corps or the City (whoever is funding the effort at the time) will report to the Service annually by November 1 and to the least Bell's vireo/southwestern willow flycatcher/yellow-billed cuckoo working group via Biological Reporting Database software to [http://wercsd01.wr.usgs.gov]. The reports will include at least the following information:</p> <ul style="list-style-type: none"> i. Copies (8.5 x 11 inches) of USGS 7.5" maps depicting the location of traps, including the quadrangle name and County. The map should be at a 1:24,000 scale. ii. The number of active days each trap was deployed. iii. The number and sex of cowbirds captured in each trap. iv. The number of banded cowbirds including USFWS band number, date, and location of capture. v. The number and species of non-target birds incidentally captured, harmed, or killed and the location of each capture. <p>10. Cowbird trapping outside of the project area upstream in the San Luis Rey River in conjunction with cowbird trapping efforts conducted in the flood control channel. This would consist of an additional 10 traps (this is in addition to this project, the 6 traps near the sand mining operation two miles upstream of I-15 and the 4 traps at the upper San Luis Rey River near lake Henshaw), beginning the trapping season following the implementation of Phase 1 vegetation clearing of the long-term operation and maintenance (i.e., phased vegetation clearing and sediment removal), in perpetuity, unless conditions as described in item "c" above are met. Traps will be placed on City, County, or State-owned sites only. The Corps will construct the additional traps; however, locating the operation sites upstream of the project area will be determined by the Corps, City, and Service. The Corps will be</p>	<p>11. Conservation Measure 10 shall be modified to require the Corps and City to implement the cowbird trapping program outside of the project area consistent with the methods and requirements of Conservation Measure 9 except that it must start in spring 2007 following the implementation the risk reduction mowing and chipping.</p>

Conservation/Minimization Measure	Terms and Conditions
<p>responsible for operating the trapping program during the construction phase and the City during the operation and maintenance phase. Cowbird surveys may be done to help optimize placement but shall not be done in lieu of cowbird trapping.</p> <p>11. The Corps will continue to implement a vireo and flycatcher monitoring program as follows:</p> <p>a. The Corps and City will provide for a qualified biologist(s) to survey for both vireos and flycatchers within the project area. Vireo nest monitoring will occur through eight years after the project impacts occur. Vireo and flycatcher abundance and distribution monitoring will occur in perpetuity.</p> <p>b. Observations of all marked or banded birds will be recorded and reported to the U.S. Geological Survey Bird Banding Lab (http://www.pwrc.usgs.gov/bbl/) or 1-800-327-BAND) as soon as possible. Data to be reported includes, but is not limited to, band number, location and sequence of color bands or other markers.</p> <p>c. The vireo and flycatcher monitoring program shall use established methods. The Corps or its designee will follow the USFWS protocol for vireo and flycatcher surveys (USFWS 2001). The Corps will review the methodologies utilized over the years within and outside of the project area (e.g., Prado Basin) including other appropriate vireo, flycatcher, and landbird population and nest monitoring methodologies. The Corps will develop a sampling protocol outlining the parameters to be utilized for population monitoring during the appropriate season as part of this biological opinion. The sampling protocol will be provided to the Service for review and approval and appended to the final biological opinion. If a more effective methodology is developed and approved by the Service, the methodology may be revisited by agreement of affected parties (Corps, Service, City, etc...). Until the protocol is developed and approved, the Corps will continue monitoring utilizing</p>	<p>12. Conservation Measure 11 in total shall be modified to implement the vireo and flycatcher monitoring condition as described in Enclosure B. Enclosure B may be modified pending the outcome of Conservation Measure 11c, but will be implemented until such time that it is modified.</p> <p>Conservation Measure 11a shall be modified to require that the Service approve of the qualified, permitted biologist used to implement the vireo and flycatcher monitoring program, and require that nest monitoring be done annually during initial exotic plant removal, risk reduction mowing and chipping, Phases 1-3 of project construction (estimated to take approximately seven years) and eight years after project construction in completed, for a total of approximately 15 years. This monitoring shall be implemented annually, starting in the spring of 2005, regardless of the status of the construction activities.</p> <p>If flycatchers are found during the monitoring program, the Corps and/or City will meet with the Service prior to initiating construction and/or operations and maintenance to ensure that the flycatcher locations and an appropriate buffer are avoided to the maximum extent practicable.</p>

Conservation/Minimization Measure	Terms and Conditions
<p>methodologies similar to previous seasons.</p> <p>d. In addition to protocol surveys for the vireo, additional visits will be made to each vireo pair to locate nests and record the number of eggs, nestlings, and fledglings produced, and nest site characteristics. All cowbird eggs or young discovered in vireo or other host nests shall be removed. As stated above, nest monitoring will occur for 8 years after project impacts. However, vireo nest monitoring may also be reinitiated as conditioned with the cowbird trapping program (see Conservation Measure #9c).</p>	<p>13. Conservation Measure 11d shall be modified to apply to the flycatcher as well as the vireo.</p>
<p>e. If found to be necessary and useful, the Corps will evaluate the methods for breeding status, delineate breeding territories, and nest monitoring data that is consistent with the journal referenced scientific literature. The Corps will use qualified, competent, and permitted biological personnel.</p>	<p>14. Conservation Measure 11e shall be modified to apply to the vireo as well as the flycatcher.</p>
<p>f. The Corps or City (depending on which entity is funding the effort) will report to the Service annually by November 1 and to the least Bell=s vireo/Southwestern willow flycatcher/YBCU working group via Biological Reporting Database software to http://wercsd01.wr.usgs.gov. The information required in the reports is identified in Service survey protocol (USFWS 2001) and should meet MHCP standards once developed.</p>	<p>15. Term and Condition 15 on page 122 of the Amended Final Biological Opinion (2006) is struck out by the Service (USFWS Clarification of Terms and Conditions, May 23, 2006).</p>
<p>12. To avoid direct vireo and flycatcher mortality, no vegetation clearing or sediment removal will be scheduled within any territory physically occupied by nesting or breeding pairs. The Corps and City will schedule all work between September 15 and March 15. If vireos or flycatchers are detected, work will halt within the subject area(s) and a qualified biologist will confirm the birds' presence/absence. Operation and maintenance activities would resume when the biologist has confirmed the birds' departure. Work would continue in other areas that are not within a territory occupied by nesting or breeding pairs.</p>	<p>16. Conservation Measure 12 shall be modified to require that the Corps or City provide for a qualified, permitted biologist approved by the Service to survey, as directed by the Service, work areas to ensure that no exotic plant, vegetation or sediment removal shall impact vireo and flycatchers, regardless of the time of year (i.e., to prevent impacts to early arrivals or late departures outside the vireo and flycatcher breeding seasons).</p>

Conservation/Minimization Measure	Terms and Conditions
<p>13. Any activity associated with scheduled operation and maintenance within the flood conveyance zone and detention/compensation ponds will occur between September 15 and March 15. For any scheduled operation and maintenance activity within the flood control project area that may need to be scheduled from March 15 to September 15, the Corps will notify the Service 45 days in advance and will coordinate the scheduled activities with the Service. In addition, a qualified, permitted biologist must confirm that no nests or breeding pairs of vireos or flycatchers are present in the work area. In work areas adjacent to habitat that supports vireo or flycatcher breeding pairs or nests where ambient noise is greater than 57 dBA L_{eq} to 72 dBA L_{eq} (at or less than 400 feet), noise barriers will be constructed and noise levels monitored from a safe area with a known distance from the construction noise source so as to ensure that construction does not result in a 5 dBA L_{eq} increase over daily ambient conditions.</p>	<p>17. Conservation Measure 13 shall be modified to require: a) exotic plant removal; b) risk reduction mowing and chipping; c) Phases 1-3 of the initial vegetation and/or sediment removal (i.e., construction); and d) any subsequent vegetation and/or sediment removal necessary in the future (i.e., operations and maintenance); within the flood control channel and detention/compensation ponds to occur between September 16 and March 14 (i.e., outside the vireo and flycatcher breeding seasons). Any work necessary during the vireo and flycatcher breeding seasons will require re-initiation of consultation.</p> <p>The Corps and/or City shall avoid: a) exotic plant removal; b) risk reduction mowing and chipping; c) Phases 1-3 of the initial vegetation and/or sediment removal (i.e., construction); and d) any subsequent vegetation and/or sediment removal necessary in the future (i.e., operations and maintenance) in at least the last kilometer reach of the eastern end of flood control channel during the arroyo toad breeding season [i.e., March 15 to July 31 (or sooner if a qualified biologist demonstrates to the satisfaction of the Agencies that arroyo toads are not present in the project area)]. If arroyo toads are found, the reach of the flood control channel in which work cannot be done during the breeding season shall be adjusted as determined by the Service.</p>
	<p>The Corps and/or City shall provide for a biologist approved by the Service to perform protocol arroyo toad surveys in the two-mile reach of the eastern end of flood control channel in the breeding season prior to initiating: a) exotic plant removal after risk reduction mowing and chipping; b) Phases 1-3 of the initial vegetation and/or sediment removal (i.e., construction); and c) any subsequent vegetation and/or sediment removal necessary in the future (i.e., operations and maintenance). If arroyo toads are found, the Corps and/or City shall contact the Service to identify measures the Corps and/or City shall implement to minimize potential take of the arroyo toad (e.g., exclusionary fencing, translocation of arroyo toads from project footprint, etc...). In addition, subsequent surveys shall need to extend</p>

Conservation/Minimization Measure	Terms and Conditions
<p>14. To avoid or minimize unexpected impacts to habitat and species, a worker education program will be required for all personnel who enter the flood control channel or detention ponds that serve as compensation sites. The program will emphasize the role of these species in the ecosystem and the penalties that could arise from misconduct.</p>	<p>further into the flood control channel as determined by the Service, based on the location of the arroyo toads found.</p> <p>18. Conservation Measure 14 shall be modified to require that a qualified biologist experienced with vireo, flycatcher, and riparian habitats, shall train all contractors and construction personnel on the biological resources associated with this project and ensure that training is implemented by construction personnel. At a minimum, training shall include: 1) the purpose for resource protection; 2) a description of the vireo, flycatcher, gnatcatcher, arroyo toad and their habitats; 3) the project description, conservation measures and terms and conditions given in this biological opinion that should be implemented during project construction, including strictly limiting activities, vehicles, equipment, and construction materials to the identified and demarcated project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by clear and easily identifiable and demarcated flagging or taping); 4) environmentally responsible construction practices, including: a) keeping the project site clean of debris and enclosing food related trash in sealed containers and removing them from the site daily to avoid attracting predators of the riparian birds; and b) not bringing pets to the project site; 5) the protocol to resolve conflicts that may arise at any time during the construction process; and 6) the general provisions of the Act, the need to adhere to the provisions of the Act, the penalties associated with violating the Act.</p>
<p>15. Signs and maps that identify compensation/mitigation areas (unmaintained areas, in-channel compensation sites and detention ponds) will be placed along the trails on the top of the levee as part of the long-term operation and maintenance (i.e., phased vegetation clearing and sediment removal) and not part of the one-time risk reduction mowing and chipping. Local agencies, easement owners within the project area, and adjacent property owners will be notified of the location and use limitations for these areas. These areas will be protected within any easement, use agreement, or permit for actions</p>	<p>19. Conservation Measure 15 shall be modified to require the Corps and/or City to submit a report that documents all existing or planned future easements, use agreements, or permits within the flood control channel or detention basins prior to initiating Phase 1 vegetation clearing (i.e., after exotic removal and the risk reduction mowing and chipping). The Corps and/or City shall notify the Service of additional easements, use agreements, or permits contemplated in the future within the flood control channel or detention basins, and shall not approve of them without consulting with the Service. The</p>

Conservation/Minimization Measure	Terms and Conditions
within or that may affect the flood control project area. If impacts do occur from easements, use agreements, or permits, impacts will be adequately mitigated.	Corps and/or City shall notify the Service immediately when any impacts to habitat to be avoided by construction, operations and maintenance of the flood control channel occur from any easements, use agreements, or permits. Any such impacts shall be offset at a minimum 5:1 ratio as approved by the Service.
16. Other maintenance activities or actions and corresponding mitigation for those actions within the compensation areas will be documented. As much as possible, the compensation areas will be protected from future anthropogenic disturbances including construction, off-road vehicular use and illegal trespass.	N/A
17. For re-vegetation of areas subject to the removal of <i>Arundo</i> or subject to temporary disturbance for the long-term operation and maintenance, the following re-vegetation measures will be used in the detention ponds: (1) utilize the City's groundwater map for appropriate plant species selection and maintenance including subsequent watering; (2) non-native species will be eradicated through either removal or foliar spraying as outlined in the Biological Assessment; and (3) monitor the vegetation in the ponds through the construction period, and 5 years thereafter including adjustment of supplemental watering.	N/A
18. The detention ponds that also serve as compensation sites will be allowed to support mature native vegetation suitable to the existing hydrological and ground water conditions. Each year, for 10 consecutive years after the initial construction phase clearing, a multi-agency managing team will convene to examine the progress of the compensation areas and propose management measures likely to retain or improve habitat values in the compensation areas without affecting flow conveyance and other flood control requirements. The team will consist of representatives from the City, Corps, Service, CDFG, RWQCB, other appropriate Federal, State, and local agencies, and may also include local experts. The Corps and the City will be the ultimate authority for approval of any actions.	20. Conservation Measure 18 shall be modified to require concurrence from the Service regarding any proposed measures that may impact native habitat within these areas.

Conservation/Minimization Measure	Terms and Conditions
<p>19. Foraging surveys will be completed for gnatcatchers within the flood control project area in the season following the implementation of Phase 1 vegetation clearing of the long-term operation and maintenance (i.e., phased vegetation clearing and sediment removal) and for the first 7 years of project implementation. A survey report will evaluate the relationship between gnatcatcher breeding or nesting locations in upland areas adjacent to the project area with gnatcatcher habitat quality and use within the river channel.</p>	<p>N/A</p>
<p>20. The Corps will provide \$2 to 5 million, as appropriated by Congress, to an entity mutually agreed upon by the Service and Corps to further the recovery of the vireo and flycatcher within the San Luis Rey River watershed or northern San Diego County. Of the \$2 to 5 million, \$20,000 will be provided upon initiating the one-time risk reduction mowing and chipping, with the remainder of the funds distributed to the identified third party entity prior to completion of Phase 1 clearing. However, since the third party entity and the process by which the funds are to be provided have not been identified and agreed upon to date, the Corps and the Service have agreed to work together towards identifying the third party entity and the process. Following the identification and agreement of the third party entity and the establishment of the process by all parties involved, the \$2 to 5 million in total of recovery funds (\$20,000 + remainder of the \$2 to 5 million) will be provided to the third party entity prior to completion of Phase 1 clearing. The recovery funds will be used to enhance/create/acquire habitat for the vireo and flycatcher. The Service will develop the scope of work for how the recovery funds would be used and the Corps will be responsible for providing the recovery funds to the identified and agreed upon entity. If a third party entity and funding mechanism/process cannot be identified, agreed upon, and established by all parties involved, the Corps will provide the \$2 to 5 million recovery funds to the Service to administer towards the recovery of the vireo and flycatcher.</p>	<p>21. Term and Condition 21 beginning on page 124 of the Amended Final Biological Opinion (2006) is struck out by the Service (USFWS Clarification of Terms and Conditions, May 23, 2006).</p>

Conservation/Minimization Measure	Terms and Conditions
<p>21. Following Phase 1 clearing, a current aerial photo will be acquired to prepare a new topographic map of the project area. This topographic map will be used for two purposes: (1) to identify the current elevation of the channel invert, to ensure the design upper bed elevation limit of the channel invert has not been breached; and, (2) to provide data that would allow the Corps to perform a new hydraulic model to determine whether or not there is a minimum of 53,000 cfs within the flow conveyance zone. The Corps, in coordination with the team, will conduct a new hydraulic model reviewing the assumptions and adjust as possible. The Corps has the final determination regarding the model and the assumptions.</p>	<p>22. Term and Condition 22 on page 125 of the Amended Final Biological Opinion (2006) is struck out by the Service (USFWS Clarification of Terms and Conditions, May 23, 2006).</p>
	<p>23. The Corps and City shall ensure the Service retains the right to access and inspect the project site and restoration areas for compliance with the proposed project description and conservation measures as modified in the terms and conditions of this biological opinion, with proper and timely notification to the appropriate Corps/City representatives.</p>
	<p>24. Unless otherwise specified above, the implementation and execution of the preceding terms and conditions shall begin immediately upon the issuance of this biological opinion and shall continue, in earnest, for the life of the project (unless noted elsewhere as "in perpetuity") and until all compensation measures have been fully implemented and executed.</p>
	<p>25. All conservation measures as modified by the term and condition shall be included as conditions of any and all Corps permits or other authorizations pertaining to the proposed project.</p>
	<p>26. As the Federal action agency, the Corps is ultimately responsible for the implementation of all preceding terms and conditions in the event of the financial or institutional incapacity of the City or their agents to perform them.</p>

Conservation/Minimization Measure	Terms and Conditions
	<p>27. The City shall manage the San Luis Rey River Flood Control Project in perpetuity. This includes providing a plan and necessary funding to maintain flood control channel as suitable habitat for vireo and flycatcher. Such a program would include at least maintaining the area free of invasives, homeless encampments, off-road vehicle use, and trash. Unless these issues are addressed to the satisfaction of the Service in the Corps' final Operations and Maintenance Plan, a draft management plan shall be provided to the Service for review and comment and a final plan must be approved by the Service prior to initiation of construction impacts.</p>

Source: USFWS. 2006. Reinitiation of Formal Section 7 Consultation and Confirmation of a Conference Opinion on the Operation and Maintenance of the San Luis Rey River Flood Control Channel in the City of Oceanside, San Diego County, California (1-6-87-F-17R2) (Amended Final Biological Opinion).

7.3 Other Measures

Minimization measures have been provided to minimize and avoid impacts to environmental resources, including water resources, earth resources, air quality, noise, and traffic. These measures are summarized below and can also be found in the environmental consequences section of this document (Chapter 5).

Table 7-3. Minimization Measures for Other Environmental Resources

ID	Minimization Measure
ER-2.1	Excavated sediments shall be moved to other areas within the channel experiencing excessive erosion or scouring. However, this will only be done if it does not contribute to vegetation disturbance. In addition, the relocated sediment shall not increase the need for sediment removal in other parts of the channel, i.e., relocated sediment shall not extend above the original design bottom elevation of the channel. The location of in-channel disposal sites will be determined in the field following topographic surveys and annual site inspections completed under ER-3.2.
ER-3.1	If a significant rain event is forecast during vegetation clearing, activities shall cease, workers and equipment shall be removed from the areas of active stream flow, and downstream flows shall be monitored until the cessation of rain and/or flows no longer present a hazard.
ER-3.2	Regular evaluations (i.e., annual maintenance inspections of flood control structural features, which will be completed by the Corps and the City) will be performed to determine if vegetation clearing or sediment removal are resulting in hydrologic alteration of surface water that, in turn, is resulting in excessive channel incision or other evidence of systemic scour or dewatering of vegetation over the length of the project. The City will also complete a careful evaluation of the occurrence and effect of scouring and/or dewatering on vegetation/habitat in the channel in the season following clearing of rotation 2 (i.e., projected to be 11 years after the initial clearing event), and every 5 years thereafter, in conjunction with the vegetation survey and topographic survey. In the event that excessive channel incision or other evidence of systemic scour of vegetation occurs, the City will consult with the Corps to implement appropriate measures.
ER-3.3	The proposed actions shall follow Best Management Practices (BMPs) as prescribed under the Stormwater Pollution Prevention Plan (SWPPP). The Corps Environmental Resources Branch (ERB) will be responsible for review and approval of the SWPPP prior to implementation of construction. The Corps will also be responsible for incorporating all environmental commitments into the design plans and specifications. Consistent with Federal and <u>state</u> regulations, BMPs shall be implemented to control the erosion of sediments into the water, prevent or contain spills from storage locations or equipment used within or adjacent to the river channel and other actions that may affect water quality. This measure will be implemented as part of the project's CWA Section 402 permit requirements, if applicable. A CWA section 401 water quality certification would also be obtained prior to construction. Measures identified within the certification will be complied with during construction activities.
ER-5.1	To minimize habitat impacts, biomass will be left as mulch to aid nutrient cycling and re-growth of vegetation. The appropriate volume or density should be estimated from litter in unaffected areas, but is generally 1 to 2 inches in depth.

AQ-1.1.	The selected contractor shall 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; this mitigation is applicable for both construction and future maintenance.
AQ-1.2.	Transported material shall be covered to reduce fugitive dust.
AQ-1.3.	Limit vehicle speeds to 15 mph maximum within the construction site and maintenance areas (construction and future maintenance), and cease grading and earth movement when wind speeds exceed 15 mph, or as confirmed by SBCAPCD during construction and future maintenance activities.
AQ-1.4.	The selected contractor shall cover the storage piles to minimize fugitive dust.
AQ-1.5.	The construction contractor shall be responsible for obtaining and complying with all applicable permits.
N-1.1	The project operator shall insure that the contractor maintains proper mufflers on all internal combustion and vehicle engines used in operation and maintenance activities to reduce noise to the maximum feasible extent.
N-1.2	The project operator shall insure that the contractor provide all businesses and residents adjacent to the study area and the haul routes with seven days advance notice of the commencement of vegetation or sediment maintenance activities in the vicinity.
N-1.3	The project operator shall insure that the Contractor establish a toll-free telephone number for dealing with public concerns/ complaints about noise and other project-related issues. The notice issued (refer to Mitigation Measure N-1.2) shall advertise the contact telephone number.
N-1.4	In Reaches 1 and 4, where residences abut the flood control project, ambient noise levels may increase by more than 15 dB over baseline conditions for more than a period of two weeks. In these areas, vegetation clearing and sediment maintenance activities shall be scheduled to proceed as quickly as possible or it shall be scheduled in phases to ensure that the duration of increased noise levels is less than two weeks.
SW-1.1	<p>Vegetation <u>mowing</u> must follow Best Management Practices (BMPs) as prescribed under the SWPPP. Consistent with Federal and State regulations, BMPs shall be implemented to control the erosion of sediments into the water, prevent or contain spills from storage locations or equipment used within or adjacent to the river channel and other actions that may affect water quality. The plan will be implemented during vegetation and sediment management actions and shall be the responsibility of the Corps during the construction phase vegetation and sediment management (phased implementation of Alternative 11) and the City throughout the operation and maintenance phase of Alternative 11. The SWPPP shall cover actions undertaken during the construction phase vegetation and sediment management as well as those undertaken during operation and maintenance. This measure will be implemented as part of Alternative 11's CWA Section 402 permit requirements. The Construction Contractor would prepare the SWPPP, file a Notice of Intent with the State Water Resources Control Board with applicable fees. This Plan shall state that:</p> <p>Construction and maintenance fluids (oils, antifreeze, fuels) shall be stored in closed containers (no open buckets or pans) and disposed of promptly and properly away from the channel to prevent contamination of the site.</p>

	<p>Refueling of the mowers can be accomplished inside the channel at least 50 feet away from flowing water and with the use of liners. The refueling truck must, at all times, stay on top of the existing levee (not within the channel invert). BMP's will be used. BMPs include such actions as having hazardous waste clean-up equipment and spill kits <u>staged on-site</u>, using the appropriate size and gauge drip pans and absorbent diapers. Spill kits shall be in close proximity to the fuel truck and mowers in case of fuel or other fluid spills. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction plans.</p> <p>Fluids released because of spills, equipment failure (broken hose, punctured tank) or refueling should be immediately controlled, contained, and cleaned-up as per Federal and State regulations. All contaminated materials should be disposed of promptly and properly to prevent contamination of the site. To reduce the potential for spills into the channel during refueling, refueling of portable equipment shall occur on shore. Where that is not possible, barriers shall be placed around the site where the fuel nozzle enters the fuel tank. The barriers shall be such that spills shall be contained and easily cleaned up. Someone shall be present to monitor refueling activities to ensure that spillage from overfilling, nozzle removal, or other action does not occur.</p>
SW-1 2	<p>Actions such as equipment maintenance <u>shall</u> not take place within the channel, detention ponds or in areas that directly drain to these locations. The staging area at Benet and River Roads, or any other off-channel staging area that is needed, shall be located as much as possible in areas constructed for this purpose, e.g., paved and bermed lots.</p>
SW-1.3	<p>The impact of vegetation debris potentially depositing downstream could be minimized or avoided by the collection of such debris by the City of Oceanside, the local sponsor, during routine debris collection near the bridges, outlet gates, near the mouth of the river, and on the beaches after significant flow events.</p>
<u>B-1</u>	<p><u>When performing giant reed eradication, the herbicide treatment process will avoid spraying chemicals into the water.</u></p>
<u>B-1a</u>	<p><u>During the implementation of the giant reed (<i>A. donax</i>) eradication methods (see Section 4.15.4.5 and 4.15.4.6 for discussion and methods), only one herbicide is currently labeled for wetlands use by the EPA; Rodeo®, a trade name formulation of glyphosate, produced by Monsanto Corporation. Glyphosate is a broad-spectrum herbicide which can be used on <i>A. donax</i>, <i>Tamarix ramosissima</i> (salt cedar), and most other monocots and dicots. It has proven very effective against <i>A. donax</i> (Finn and Minnesang 1990; Jackson 1994; USDA Forest Service 1993). Other herbicides might also be used as labels and conditions allow. Monocot-specific chemicals, such as Fusilade-DX® (fluazapop-butyl) and Post® (Sethoxidan), might be particularly useful for treating <i>A. donax</i> in stands with a substantial component of native dicots; however, neither is currently labeled for wetlands use. During the use of the herbicide, spraying will be accomplished in a manner that the spray will not enter into open water adjacent to the San Luis Rey River.</u></p>

<u>B-2a</u>	<u>An herbaceous corridor of flexible, bendable habitat will be left on either side of the open water course.</u>
<u>B-2b</u>	<u>During project implementation, an approximate "buffer" of 10 to 15 feet, (width coordinated with CDFG), will be left in place for steelhead shade requirements. However, when this vegetation is no longer bendable or flexible or if woody vegetation (e.g., willows, cottonwoods, mulefat) becomes greater than 0.5-inches dbh, those areas within the 10 to 15 foot swath would be mowed and chipped and allowed to restart their growth process. It is anticipated that mowing of this area will need to occur during project implementation as much of the vegetation extant within the channel exceeds the 0.5 inch dbh limit for the annually maintained area.</u>
<u>B-2c</u>	<u>Freshwater marsh vegetation would be avoided to the extent practicable.</u>
<u>B-2d</u>	<u>No trees will remain within the 230-foot annually maintained vegetation management area. Vegetation management is formulated to have up to 10-year old trees (willows and cottonwoods) in the two rotationally managed corridors (Rotations 1 and 2); trees will be allowed to grow unabated within the unmaintained corridor and in the compensation/preservation areas.</u>
<u>B-3a</u>	<u>While steelhead typically migrate upstream between September to March and the Proposed Action is scheduled to occur between September and March each year, the inclusion of a 10 to 15-ft herbaceous corridor within maintained areas (subject to vegetation and sediment management) would not result in affects to steelhead migration.</u>
<u>B-3b</u>	<u>The vegetation management of mowing and chipping is scheduled to take place during the fall and early winter seasons when the river is experiencing both high and low flow events, in order to avoid least Bell's vireo and southwestern willow flycatcher nesting seasons.. During the migration period, the river will flow high when there are storm events and then once the water has passed the area, the river will return to its "normal" water flow conveyance and will run low. Once the river returns to a low flow, vegetation management actions would continue.</u>
<u>B-3c</u>	<u>Where necessary, equipment will need to cross the open water and braided areas in several areas to get to the other side of the channel. Qualified and experience biologists will reconnoiter for steelhead immediately prior to the equipment crossing.</u>
<u>B-4</u>	<u>A presence/absent protocol survey for <i>O. mykiss</i> steelhead would proceed prior to any vegetation management (mowing) for implementation of Phase 2, Phase 3, and the annual maintenance (early September). The current CDFG <i>O. mykiss</i> survey (2006) within the project area would suffice for the survey prior to Phase 1 implementation of vegetation management. Reconnoiter of the action area would consist of present/absent of juveniles which may be using the area for rearing.</u>

PS-2.1	The City of Oceanside shall provide appropriate notice via signs, newspapers, and direct communication to pedestrian's potential users of the channel and adjacent areas one week prior to and during vegetation clearing and sediment removal activities. The City shall restrict public access to active work zones.
PS-2.2	The O&M Plan shall identify a communication protocol and criteria for determining work schedules based on daily meteorological conditions.
PS-2.3	The contractor shall employ appropriate signaling and signage to accommodate potential interruptions or detours in existing traffic flows. These measures must be defined in the Traffic Control Plan (see Section 5.9.5).
PS-2.4	Prior to the implementation of Alternative 11, the City of Oceanside shall notify relevant fire, police and other emergency service agencies of the proposed work, areas of potential congestion, and traffic management methods to be used to ensure access at all times.
LUR-2.1	Maintenance activities likely to create noise and dust shall be restricted to the hours of 8 a.m. to 5 p.m. daily, and shall be preceded by notification of nearby residences. The notifications shall describe the character of the activities and their duration. This mitigation measure is designed to enable local residents to modify their activities to reduce potential impacts.
REC-3.1	In the event of any temporary levee access or other trail closure appropriate signs will be posted to ensure safe access and, or, bypass of the levee reaches affected.
T-3.1	Haul routes shall be designed to minimize distances to the work site and avoid heavily congested areas or large residential communities. Multiple haul routes will be used to reach the beach area through the City and alternate scheduling of hauling times and frequencies will be incorporated into the Traffic Control Plan (see Mitigation Measure T-3.2). All existing access ramps into the channel shall potentially be used to reduce traffic loads along the haul routes.
T-3.2	The contractor will submit a Traffic Control Plan to the City of Oceanside's Public Works Department for review and approval that demonstrates practices and safety precautions designed to minimize temporary traffic impacts.
T-3.3	All work and staging areas will be clearly marked and appropriately guarded to ensure public safety.
T-3.4	If lane closures are needed, only one lane of traffic will be closed at a time, and nearby roads will not be closed simultaneously.
T-4.1	If damage to roads and sidewalks occurs, the contractor shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired. Roads and sidewalks disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road and sidewalk surfaces. Out-of-channel staging areas shall be cleaned up.

PSU-1.1	Prior to the implementation of Alternative 11, the City will notify relevant fire, police and other emergency service agencies of the proposed work, areas of potential congestion, and traffic management methods to be used to ensure access at all times.
A-1.1	Following the deposit of sediments removed from the channel, the project operator shall: (1) separate or remove any rubbish or debris in the channel prior to hauling sediments (this remaining portion will be disposed in a solid waste landfill with vegetation debris); and (2) grade these deposits to return the beach to its original profile and form.

San Luis Rey, CA 92068

NOV 05 2007

CALIFORNIA
COASTAL COMMISSION

re: Corps of Engineers Meeting
on November 15, 2007

I've been involved for over a decade in the battle to protect the 7 miles of residential property abutting the San Luis Rey River. When my blind husband and I moved here in 1990, at _____ in Oceanside, we were unaware of past flooding problems near our newly purchased home. There is only one row of homes between our residence and the river. At that time, the grasses in the riverbed were a few inches high, but there were wide unprotected spaces between the ends of the levee and each side of the bridge. I thought the levees were for protection from erosion, since they sure couldn't really protect from flood waters.

Years ago, a former Council member told me that homes north of the river "should never have been built." Unfortunately, developers would build on swampland if lax city officials gave approval. Disastrous torrential rains occurred shortly after we moved in. City workers worked day and night to clear the debris, and to save the Foussat bridge. I'm told that this area has flooded several times in the last 30-40 years. The "100-year flood limit" is a bunch of balony: floods occur periodically.

We're told that the river forest we now have must be renewed and protected for "endangered bird species." So, what did the birds do when the riverbed consisted only of 4 inch high weeds? Frogs, lizards, rattlesnakes! Why are they getting priority over the protection of human beings? Several months ago, I was given (telephone) assurance from an officer at Army Corps of Engineers, that the riverbed would be cleared this October. It's now November, a time when flooding could occur anytime from winter rains. And yet, all we have is more meetings/more delays.

How many helicopters will be dropping food and/or evacuating residents, and at what a high price? We plead for preventive measures, such as removal of the forest, and get only a cold shoulder and a bagful of empty promises from the Army Corps. It's apparent that the Corps is going to leave that overgrowth blocking the riverbed ad infinitum. Perhaps that's one of the reasons the meeting, concerning only Oceanside, is being held in San Diego – a 100-mile plus round trip from Oceanside. And this is unbelievably callous.

Isn't it time the Corps is made to stop playing Russian Roulette with us. I have photographs of the overgrowth, taller than the bridge and dense enough to provide a hiding place for those who had set fires in the riverbed last year. The Corps had the North County Times publish pictures showing "activity" to clear the

EXHIBIT NO. 10
APPLICATION NO.
CD-043-07

June Kristapovich

Oceanside, CA 92068

riverbed. Where? Not at Foussat. Now, with the "trees" in the river, the danger has increase a thousandfold, while the Corps has occasional meetings (one last year at our City Council) to calm the tensions of our residents. How many people, out of the thousands along the river/forest will the government be able to evacuate in pouring rains when the bridge is washed out. Then where will those precious birds go to nest?

How many Katrinas must our country suffer before our taxes are used to protect our citizens from potential disasters that WILL, not MAY, happen because of the laxity of the Corps of Engineers. When the NCT published pictures of the "clearing of the river channel," they snapped the pictures and then stopped any further clearance. They simply went home, forgetting to do more than the small section pictured in the newspaper, that they were "beginning to clear."

And I'm pretty doggone sure that this meeting is just another PR move for a Corps that will NEVER clear our riverbed until homes/homeowners are wiped out during future winter flooding.

Since my husband and I are unable, at our age, to attend the meeting in San Diego, I am requesting a copy of any/all handouts given out at the meeting. Since I have been involved in this debacle since the problem first began in the early 1990s, I would like to keep my files as current and complete as possible, as the problem most assuredly will continue to be ignored.

Please protect us while it is still possible. Accept no more delays and broken promises. Whether they choose to take care of this later, rather than now, may mean the difference between massive property damage/loss and possible loss of life. We need help now; since the Corps does not care to recognize the gravity of the situation and the danger to people who will be sitting ducks when flooding does occur.

Please, make sure that every official at that meeting gets a copy of this letter, since I do not know how to contact them by mail.

Sincerely,



June Kristapovich
and Joseph Kristapovich

Larry Simon

From: diane nygaard [dandd2@peoplepc.com]
Sent: Friday, November 09, 2007 12:36 PM
To: Larry Simon
Subject: Fw: San Luis Rey River Consistency Findings

----- Original Message -----

From: diane nygaard
To: lsimone@coastal.ca.gov
Cc: Libby Lucas ; Dave Grubb ; Mary Clarke
Sent: Friday, November 09, 2007 12:04 PM
Subject: San Luis Rey River Consistency Findings

Mr Simone

I attended a hearing of the Oceanside City Council on November 7th where there was some discussion of this item- then coincidentally saw that the Federal consistency findings review is scheduled for approval by the CCC next week. I am not familiar with the Federal consistency finding process, but do have a number of concerns about the mitigation proposed for this project. It may be more appropriate to address these at a later stage of the project, but I thought it important to let you know now what those concerns are so that they can be considered as part of the current consistency review. They include:

1. It appears that wetland mitigation- even in the coastal zone is only at a 1:1 ratio.

According to the provisions of our regional conservation plan, wetland habitat mitigation is to be determined through consultation with the DFG, and to be designed to assure no net loss of function. Typically this results in 3:1 mitigation.

2. No mitigation is proposed for the on-going maintenance impacts to 180 acres/year.

It is unclear exactly what the direct, if any, impacts will be to sensitive habitat, but certainly at a minimum there will be indirect impacts that should be addressed.

3. There need to be assurances that the proposed clearing regime and maintenance is sufficient for the Fire Department.

The risk of a fire coming down the river has been greatly exaggerated locally. However, there have been a number of recent occurrences and fire safety needs to be integrated with the plan for vegetation removal. Past experience has shown that there will be further impacts if this is not planned for.

4. Replacement function is targetted to the Least Bell's Vireo- but there were several listed species impacted.

Our concern is that the mitigation and monitoring plan needs to fully assess and protect the function of the wetlands for all of the listed species. this would be strengthened by having performance targets for all of the listed species.

5. A few months ago there was a major issue with the WLA's and city of Oceanside in the SLR River corridor. The Fire Dept violated their agreement regarding limits of brush clearing and the city had a contractor who also cleared sensitive habitat illegally. These impacts were all in addition to damage by an arsonist who set several fires in the river corridor. These illegal impacts per the MHCP are to be mitigated at 5:1- and should be integrated with this mitigation plan. Given the past history of unplanned loss of habitat, penalties for violations and some third party monitoring should be part of the plan.

6. Time frame for mitigation to be in place. We believe there is a requirement for federally funded projects that mitigation must be in place before the impact can occur. Is that operative here? if not, there needs to be some

EX. 10 p. 3 of 4

time-certain for mitigation to be in place- or clearing must stop until it is. Otherwise it is too easy to just put money in an acquisition pot and not do anything with it for years. (And as of last week we have at least one prime parcel in the Oceanside coastal zone with a willing seller).

Diane Nygaard
MHCP/MSCP Task Force
San Diego Chapter of the Sierra Club

EX-10 P.4 of 4