

CALIFORNIA COASTAL COMMISSION

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**Th23a****RECORD PACKET COPY**

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COASTAL DEVELOPMENT PERMIT APPLICATION

Application number 3-02-072, Arroyo Grande Creek Sediment Removal Project
Applicant..... San Luis Obispo County Flood Control and Water Conservation District
Project location..... Arroyo Grande Creek (between UPRR crossing and a point approx. 3,200 feet downstream of UPRR crossing), Oceano, San Luis Obispo County.
Project description Request by SLO County Flood Control and Water Conservation District to conduct maintenance sediment removal activities in the Arroyo Grande Creek Flood Control Channel. Project involves removing two (2) pockets of accumulated sediment from between the levees of lower Arroyo Grande Creek.
File documents..... CCC Coastal Development Permit Application 3-02-072; *Habitat Assessment for the Arroyo Grande Creek Flood Control Project* (Essex Environmental, July 26, 2000); *Post-construction Monitoring Report for the Arroyo Grande Creek Flood Control Project* (Essex Environmental, December 2001); San Luis Obispo County Coastal Development Permit D010408P.

Staff recommendationApproval with Conditions

Summary of Staff Recommendation: The Applicant proposes to remove two isolated pockets of accumulated sediment and limited amounts of Riparian Scrub (ruderal) vegetation from between the levees of lower Arroyo Grande Creek in south San Luis Obispo County. This one time sediment removal project is intended to protect adjacent farmland, businesses, public utilities, and residences from flood hazards by increasing the capacity of the channel, which has gradually diminished since it was originally established by the Corps of Engineers in 1957. The 1.5 acres of the project within the Commission's original permit jurisdiction is part of a larger project that affects a total of 12 acres of the entire the floodplain. 2.5 acres of disturbance has already occurred in the portion of the creek within the Commission's appeal jurisdiction, which was authorized by County Coastal Development Permit D010408. The overall project has been designed to provide an interim flood control measure so that alternative strategies for long-term flood protection can be considered and pursued. The extent of the project, which will restore approximately 15% of the original capacity established by the Corps, represents what the County believes to be the maximum amount of flood protection that can be provided without causing significant adverse impacts to sensitive biological resources.

**California Coastal Commission****July Meeting in Petaluma**Staff: J. Bishop Approved by: *C.R.L. 6/19/03*

Coastal Act section 30236 allows flood control projects where there are no other feasible alternatives to protect public safety and existing development. In this case, existing development located adjacent to the levees, such as residences and agricultural warehouses are threatened by the reduced capacity of the flood channel, as demonstrated by the damage sustained in the recent floods of 2001. According to the applicant, the proposed sediment removal is the only feasible means available to minimize current flood control hazards in a timely fashion. Alternative means of addressing this hazard, such as widening the levees, pursuing flood easements, and relocating or raising existing development of the flood plain, will be addressed as the County proceeds with the development of a long-term flood control strategy. Recommended Condition #4 of this permit establishes a timeline and framework to ensure that the least environmentally damaging alternative available to achieve the necessary long-term protection will be thoroughly pursued.

Where there are no other feasible means to protect existing development from floods, stream alteration projects must provide the best mitigation measures feasible (Coastal Act Section 30236). In addition, the project must be designed and carried in a manner that protects the quality and biological productivity of coastal streams and sensitive habitats (Coastal Act Sections 30231 and 30240). Accordingly, the County has strategically selected areas for clearing, and limited the extent of land form alteration, to that which will provide maximum increase in flow capacity with the minimum amount of disturbance to biological resources. Vegetation clearing and sediment excavation would occur at two critical points between the levees and would be setback from the edge of the stream channel to prevent removal of emergent aquatic vegetation, avoid work in flowing water, and minimize impacts to sensitive aquatic habitats. In addition, the project includes a comprehensive package of mitigation measures that has been developed in coordination with the involved resource agencies and fulfills Coastal Act requirements for maximum protection of environmental resources. **Staff therefore recommends approval with conditions.** Recommended conditions 1-3 require strict adherence to the project parameters, and complete effective implementation of the identified mitigation measures, as a means to ensure that the project will be carried out consistent with Coastal Act requirements.

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IV. Exhibits

- Exhibit A: Project Location and Vicinity Maps
- Exhibit B: Site Photos
- Exhibit C: Typical Cross Section and Project Plans
- Exhibit D. Summary of Mitigation Measures

I. Staff Recommendation on CDP Application

The staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

Motion. I move that the Commission approve Coastal Development Permit Number 3-02-072 pursuant to the staff recommendation.

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

Resolution to Approve a Coastal Development Permit. The Commission hereby approves the coastal development permit on the grounds that the development as conditioned, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the coastal development permit complies with the California Environmental Quality Act because either: (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment; or (2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse effects of the development on the environment.

II. Conditions of Approval

A. Standard Conditions

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.



3. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

B. Special Conditions

1) **Authorization.** This approval authorizes the one time removal of sediments and vegetation within the parameters identified in the project description, including full implementation of all mitigation measures summarized by Exhibit

The Permittee shall undertake development in accordance with the approved Project Plans. Any proposed changes to the approved Project Plans shall be reported to the Executive Director. No changes to the approved Project Plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

2) **Pre-Construction.** PRIOR TO CONSTRUCTION the permittee shall provide evidence for Executive Director review and approval that all special conditions related to pre-construction surveying, monitoring, and noticing, as depicted in Exhibit D of this report, have been completed.

3) **Post Construction.** FOLLOWING COMPLETION OF CONSTRUCTION, the permittee shall provide evidence for Executive Director review and approval that all post-construction surveys, evaluations, monitoring and reporting conditions, as depicted in Exhibit D of this report, have been met.

4) **Alternatives for Long Term Flood Protection.** WITHIN ONE YEAR OF PERMIT APPROVAL (i.e., by July 10, 2004), the permittee shall submit a comprehensive analysis of the alternatives available to protect public safety and existing development from floods, accompanied by a proposed strategy and timeline for implementation of the least environmentally damaging feasible method(s). The identification and analysis of alternatives shall be pursued in coordination with all relevant resource agencies and interested parties (e.g., National Marine Fisheries Service, US Fish and Wildlife Services, California Department of Fish and Game, surrounding property owners), and shall include the six (6) scenarios described in the October 2002 RFP "*Program Evaluation and Engineering Alternatives Analysis Study*", as well as, full consideration of the following options or some combination thereof:

- a. Increasing the height and or width of the levee.
- b. Relocating outside of flood hazard areas and/or flood proofing existing development within the hazard area.



5. Public Access. One side of the Arroyo Grande Creek levee system shall remain open for public access at all times during project construction. PRIOR TO INITIATING CONSTRUCTION, the permittee shall provide signage in the project area that includes the estimated period of construction and directs users to nearby alternative access routes.

III. Recommended Findings and Declarations

The Commission finds and declares as follows:

A. Project Location and Background

The proposed project is located within the levees of the Arroyo Grande Creek. Arroyo Grande Creek flows west for approximately 13 miles from Lopez Lake to the Pacific Ocean in San Luis Obispo County. Between 1957 and 1959, the federal government (United States Department of Agriculture, Soil Conservation Service) channelized the lower 3.5 miles of the creek by constructing levees. Although the levees were constructed by, the San Luis Obispo County Flood Control and Water Conservation District agreed, in 1959, to maintain the levees and the channel. Over the years, periodic maintenance has been conducted to repair the levees and remove sediment from the channel. Nevertheless, significant amounts of sediments have continued to accumulate, and have greatly reduced the capacity of the creek channel.¹

In the spring of 2001, heavy rains in the Los Berros Creek watershed (tributary to Arroyo Grande Creek) resulted in a failure of a portion of the levee in the project area, with several hundred acres of farmland flooded, along with damage to farm structures and residences (see Exhibit B for photos). In response, the Flood Control District pursued and received, in August 2001 permits from the US Army Corps of Engineers, US Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game, and the County of San Luis Obispo to conduct a three-year phased sediment removal project in the Arroyo Grande channel. In the late summer of 2001 and 2002, sediment was removed from limited, select areas in portions of the channel outside of the coastal zone as well as within the coastal development permit jurisdiction of San Luis Obispo County, pursuant to County Coastal Development Permit D010408. The remaining sediment to be removed, which is located in the Commission's retained permit jurisdiction and the subject of this permit, is the final component of the three-year effort that has yet to be completed. As previously noted, this is part of an interim effort to try to minimize current flood hazards while long-term alternatives are being investigated.

¹ According to the November 1965 Operation and Maintenance manual for the channels, the main channel was designed to convey 100-year storm event floodwater in the amount of 10,100 cubic feet per second. The current capacity of the channel due to deposition from sedimentation is as little 1700 cubic feet per second, which equates to between a 2 and 5-year storm event capacity.



B. Project Description

The proposed development involves removing built up sediments from critical points between the flood control levees. Plans call for using a long-reach excavator to remove the sediment that has accumulated, forming bars and terraces within the flood channel. The excavator will either work from the top of the levee road, use existing ramps to access dry areas within the channel, or will track down the levee bank. Since the existing levee provides access along the flood channels, additional excavation for equipment access will not be necessary. All work and equipment will maintain a setback from the edge of the stream channel to avoid disturbance in areas of flowing or standing water. Sediment will be removed down to a depth of no more than two feet above the level of flowing water by using the "scoop and lift" method, meaning a long reach excavator would scoop material out of the work areas and place it into trucks staged on top of the levee. The total surface area within the Commission's original permit jurisdiction that would be affected is 1.5 acres.

The project includes a suite of mitigation measures that are retained as elements of the proposed project description. Measures include but are not limited to the following: pre-construction surveys, biological monitoring, riparian vegetation setbacks, dry-season timing requirements, construction related BMP's, and post-construction monitoring and reporting. Please see exhibit C for typical cross section and project plans and Exhibit D for a summary of mitigation measures incorporated by reference in this permit.

Other Agency Review

The Applicant's proposed project has been reviewed and authorized by the California Department of Fish and Game (CDFG), the United State Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS). The project is under the threshold (5 acres) for State Water Resources Control Board construction stormwater permit requirement and exempt from water quality certification because no permit was required from the US Army Corps of Engineers (ACOE) on the basis that the project does not involve fill in waters of the United States.

C. Coastal Act Issues

1. Coastal Streams and Riparian Vegetation

A. Applicable Policies

The Coastal Act requires new development to protect environmentally sensitive habitat areas (ESHA) such as coastal streams, riparian habitats, and marine ecosystems. The Coastal Act defines environmentally sensitive areas as follows:

Section 30107.5. "Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.



Non-resource dependent development is prohibited within ESHA, and adjacent development must be sited and designed so as to maintain the productivity of the habitat. In particular, Coastal Act Section 30240 states:

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.

Section 30240(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.

Article 4 of Chapter 3 of the Coastal Act also describes protective policies for the marine environment and specifically calls out coastal stream resources. Coastal Act Sections 30230 and 30231 provide:

Section 30230. Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

In addition, Coastal Act Section 30236 addresses protection of resources like Arroyo Grande Creek. In particular, Coastal Act Section 30236 allows the alteration of coastal streams to a few limited categories where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects. Section 30236 specifically describes the limited uses for which stream alteration is allowed. Section 30236 states:

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.



B. Analysis

The Coastal Act Sections 30230 and 30231 require that the quality and biological productivity of coastal streams be protected, through other means, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams. To further this objective, Coastal Act Section 30236 limits channelizations, dams, or other substantial alterations of rivers and streams to flood control projects necessary to protect public safety and existing development that incorporate the best mitigation measures available, and where there are no feasible alternatives. Necessary flood control projects must therefore comply with policies protecting stream and riparian environs to the maximum extent possible.

The portion of the project within the Commission's permit jurisdiction would take place between the existing Arroyo Grande Creek flood control levees, at a point approximately .5 miles upstream from its beach termination and seasonal lagoon. The Arroyo Grande Creek flood control channel currently contains active flows of varying seasonal width. During summer flows the stream width ranges from 6 to over 30 feet. The channel in this area has a fairly low gradient, creating a flat stream bottom for flows to meander over, and gradual to steep banks between levees. Arroyo Grande Creek provides known habitat for sensitive state and federally listed species such as Tidewater goby, Steelhead trout, Arroyo toad, Southwestern pond turtle, Two-striped garter snake, La Graciosa thistle, Surf thistle, Gambel's watercress, and Black flowered-figwort. Thus, the proposed project area represents a significant natural resource providing biologically productive habitats for listed and non-listed plant, aquatic, and land species, including important foraging, roosting, breeding and rearing habitat.

The proposed project would result in temporary negative impacts to streams and riparian habitats from the clearing of vegetation and removal of accumulated sediment. Impacts to the aquatic and semi-aquatic habitats could occur if there is a loss of shade and cover due to removal of upland vegetation, or if the project results in an increase in sedimentation. Loss of shade and cover could result in increased water temperatures in pools or loss of areas to seek shelter from predators. The removal of accumulated sediment and strips of vegetation will result in exposing loose surface material along the banks, making it vulnerable to increased sediment transport and turbidity during winter flows.

In terms of impacts to sensitive aquatic species (Tidewater Goby and South-Central California Steelhead), the applicant has agreed not to work within 15 feet of the flowing stream or within the banks of the downstream coastal lagoon. Therefore, no direct impacts are anticipated. Indirect impacts could include the loss of shade and cover. In this case, shade is afforded at this location by riparian strips (primarily willows) growing along the margins of the flowing stream. These willows will not be removed, and therefore indirect impacts due to the removal of critical vegetation will be avoided.

The affect of the project on future sedimentation is not entirely certain, although any increase would be expected to be of a short duration. According to the habitat assessment prepared by the applicant, increased sedimentation during the winter months is a naturally occurring process and whereas the proposed project may result in short-term increase in sedimentation, it is not expected to significantly alter this process over the long-term. Furthermore, special conditions included in this permit prohibit the removal of emergent vegetation, gravel bars, or open water habitat.



Riparian scrub and ruderal plants provide limited foraging, burrowing, or nesting habitat for California red-legged frog, southwestern pond turtle, and two-striped garter snakes. The removal of the vegetative cover and substrate from the levee's banks may have a direct impact on these sensitive resources if they are present. However, the project includes pre-construction surveys as well as biological monitors on site to examine areas before and during work to ensure avoidance of the sensitive species. Of the four sensitive plant species with the potential to occur in the channel, none were observed by the surveys. The vegetation that would be impacted by excavation at sites #27 and #28 consists entirely of riparian scrub (ruderal) and channel bank (ruderal) as described in the Habitat Assessment. While clearing activities will remove some ruderal plants, past clearing activities have shown that re-growth occurs rapidly.

Given the limits placed on the areas that can be impacted, combined with the methods proposed for the excavation, and the mitigation measures to be applied, sensitive habitat or species will not be significantly affected by the one time removal of sediments and vegetation from these areas. Therefore, the project, which is an interim step to provide necessary flood control (see discussion below), can be approved consistent with Coastal Act Sections 30230 and 30231.

Existing Structures in Floodplain to be Protected

Pursuant to Coastal Act Section 30236, the alteration of coastal streams is limited to flood control projects where protection is necessary for public safety or to protect existing structures in the flood plain. In this case, the proposed project is necessary to protect adjacent residences, recreational facilities, commercial agricultural facilities, and the Oceano sewage treatment plant located in close proximity to the levees. As such, the flood control project is allowed to protect existing structures consistent with Section 30236.

Feasible Protection Alternatives to Vegetation Clearing and Sediment Removal

Section 30236 further limits streambed alterations for flood control to situations where *no other method for protecting the existing structures in the floodplain is feasible*. In other words, under the policies of the Coastal Act, the project must be the least environmentally damaging feasible alternative.

In this case, the "no project" alternative is not viable because the existing threatened structures would not be protected absent some form of flood control. The current channel capacity is as little as 1,700 cubic feet per second, with a 100-year discharge estimated at 10,100 per second. According to the County, the inadequate capacity of the channel to accommodate high flows was clearly demonstrated in the winter of 2000, when the levee was over-topped by a minor storm and several hundred acres of adjacent farmland together with business and residences were flooded, as illustrated by the photos in Exhibit C.

In evaluating project alternatives available to provide the necessary flood control, it is important to distinguish between the objective of providing timely temporary relief to the current problem, and the need to analyze, identify, and implement the least environmentally damaging long-term solution. For the long-term, the County is currently identifying and evaluating alternative strategies, including that which



will restore and maintain flood control capacity while at the same time enhancing current habitat values, such as by expanding the channel width. Special Condition 4 of this permit establishes a timeline and framework to ensure that the least environmentally damaging alternative available to achieve the necessary long-term protection will be thoroughly pursued.

However, for the near term, sediment removal appears to be the only feasible means available to minimize current flood control hazards in a timely fashion. The County has conducted a detailed analysis of the various means by which this immediate need can be accomplished. Through this effort, the County has strategically identified areas where sedimentation removal would provide a maximum reduction in the current flood hazard, without resulting in significant adverse impacts to sensitive habitats. The County has also developed a comprehensive package of mitigation measures in coordination with the involved resource agencies to ensure that the interim project will avoid and minimize impacts to ESHA to the greatest degree feasible. These project parameters and mitigation measures must be fully implemented to the satisfaction of the Executive Director pursuant to Special Conditions 1, 2, and 3. With these conditions, the proposed interim project represents the best alternative available to address immediate flood protection needs, consistent with the requirements of Coastal Act Section 30236.

2. Public Access and Recreation

Applicable Policies

30210. In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

30212(a): Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

Public Access and Recreation Analysis and Conclusion

Coastal Act Sections 30210 through 30212 specifically protect public access and recreation. The levee system of Arroyo Grande Creek provides for recreational public access to the rivermouth environs and to the beaches of Oceano dunes. Historically, the levees have provided convenient beach access to walkers, runners, bikers, and horseback riders.



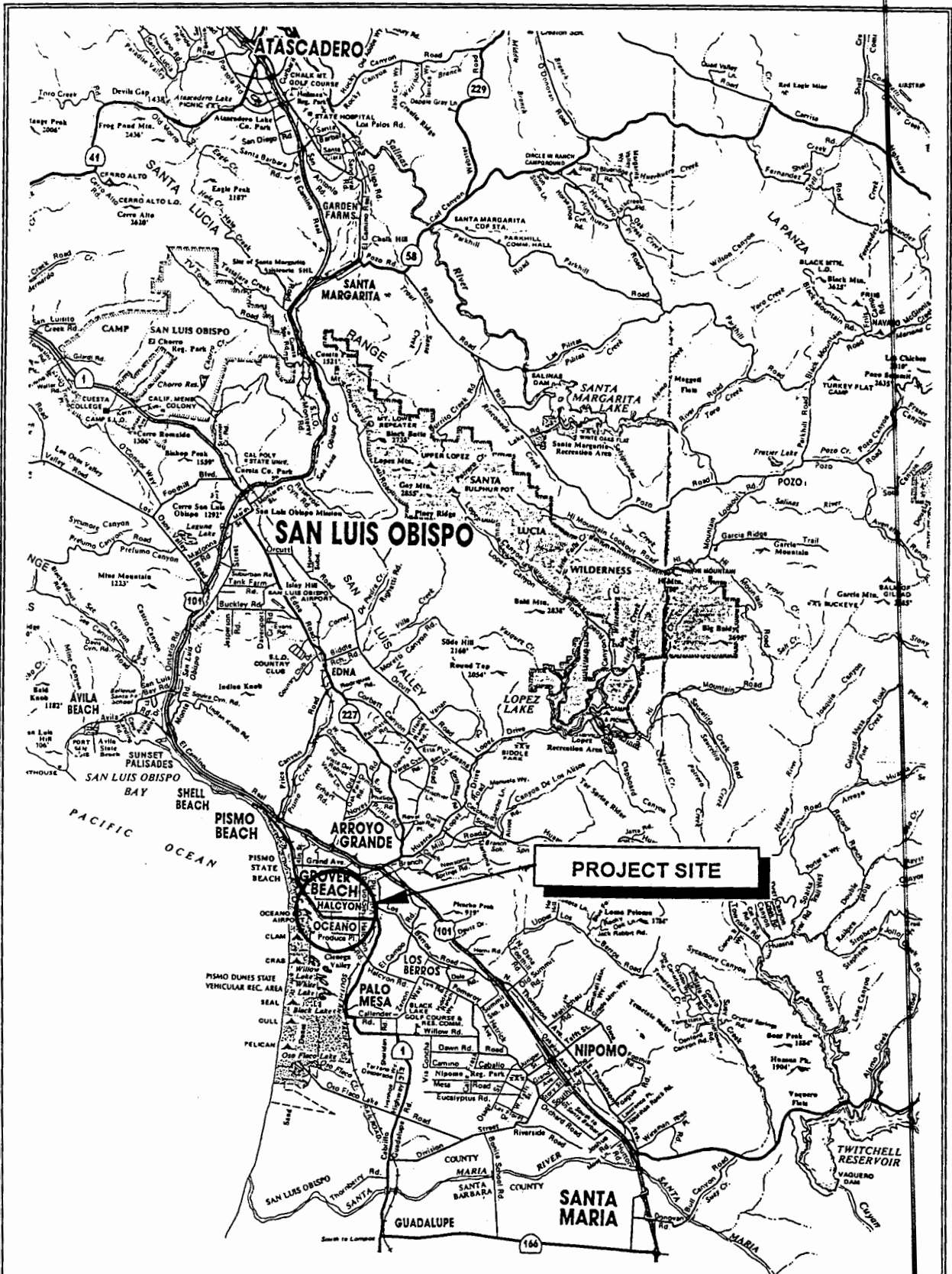
The project is anticipated to take up to ten working days to complete. Equipment and trucks on the levees during construction has the potential to disrupt access to the beach. It should be noted, however, that bridge crossings occur within close proximity to the worksite, and provide ample alternative access routes to the beach. While work is occurring on one side of the creek, it is reasonable to assume that access could be maintained on the opposite side. Special Condition 5 requires that signs be placed near the project site to notify users of alternative access routes in the area. Thus, given the short duration of access impediments and the fact that the project has been conditioned maximize access opportunities to the beach, the project is consistent with Coastal Act public access and recreation policies 30210 through 30212.

3. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of CEQA. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has analyzed the environmental impacts posed by the project and identified changes to the project that are necessary to reduce such impact to an insignificant level. Based on these findings, which are incorporated by reference as if set forth herein in full, the Commission finds that only as modified and conditioned by this permit will the proposed project avoid significant adverse effects on the environment within the meaning of CEQA.

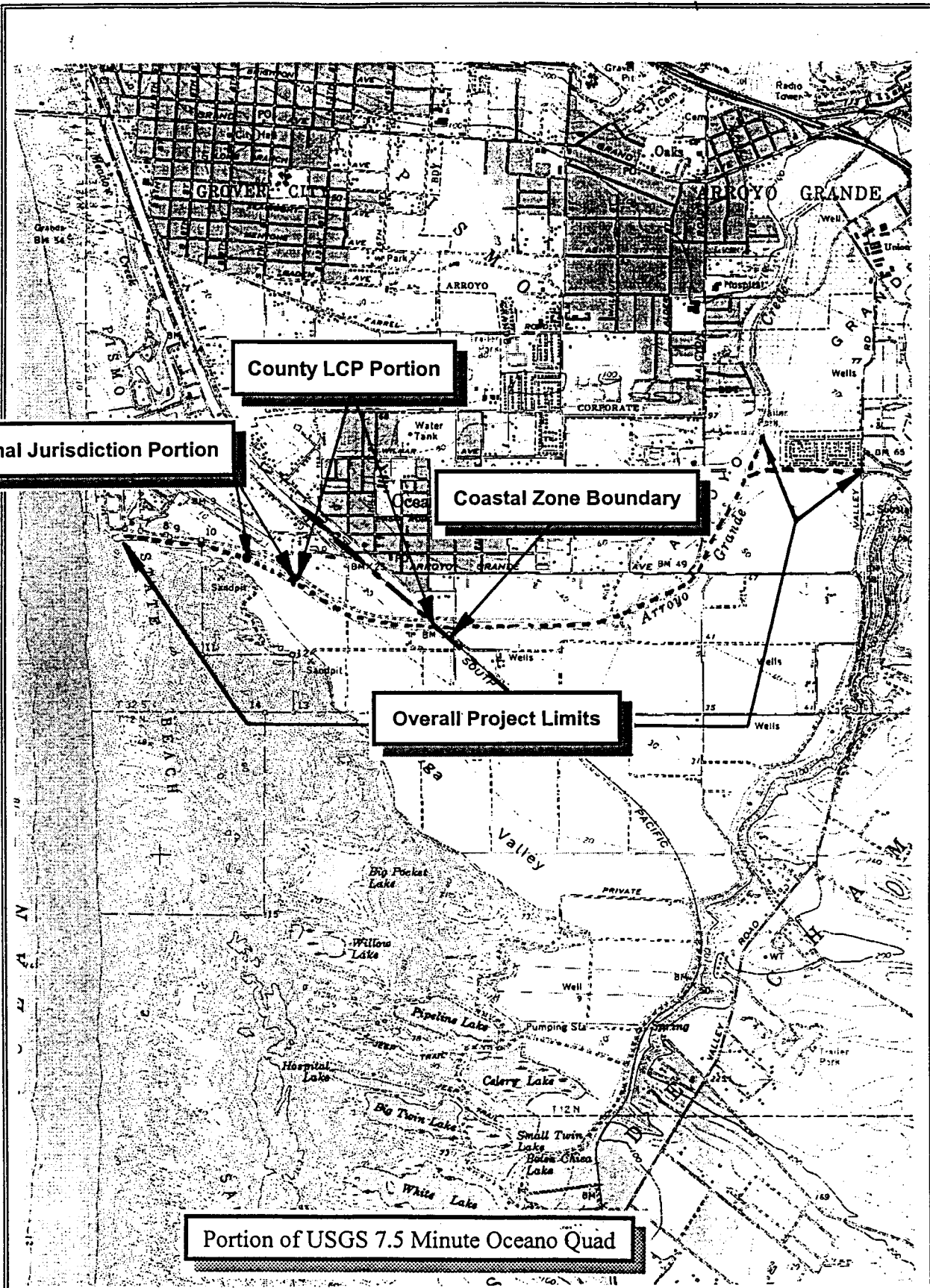




ARROYO GRANDE CREEK FLOOD CONTROL
 CHANNEL SEDIMENT REMOVAL PROJECT;
 ED00-211 (C000016E/P208208)

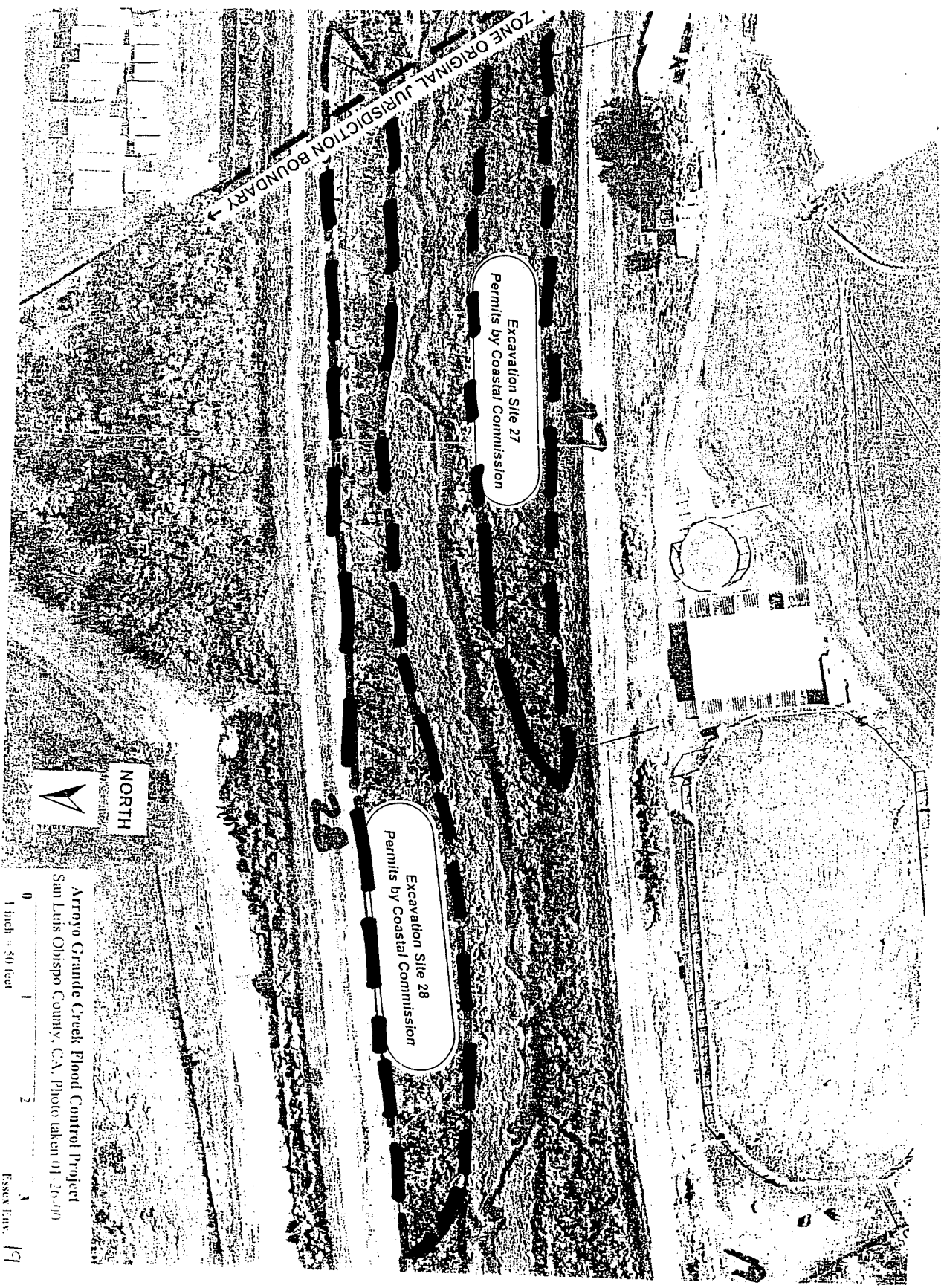
LOCATION **000** Exhibit
 (page 1 of 2 pages)

A



ARROYO GRANDE CREEK FLOOD CONTROL
CHANNEL SEDIMENT REMOVAL PROJECT;
ED00-211 (C000016E/P208208)

VICINITY **CEC** Exhibit A
(page 2 of 2 pages)



Arroyo Grande Creek Flood Control Project
San Luis Obispo County, CA. Photo taken 01-26-09
ESSEX ENV. 19



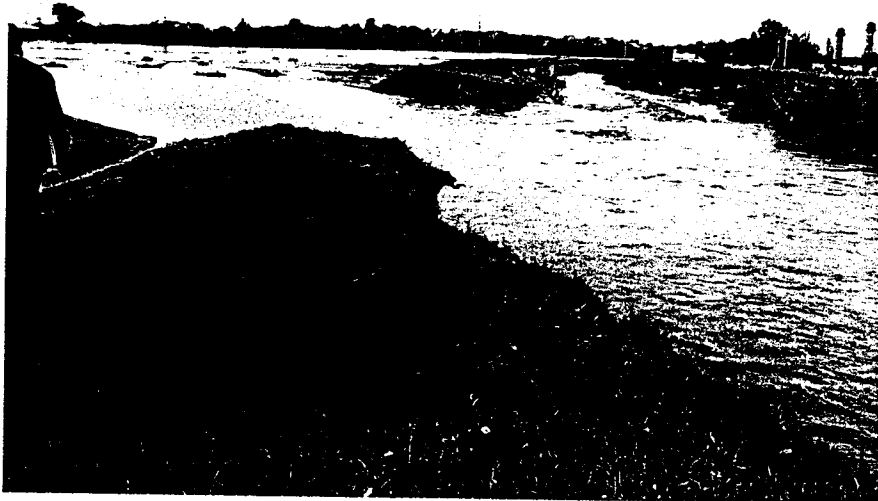
LIMITS of CLEARING - SITE #27

CCC Exhibit B
(page 2 of 4 pages)

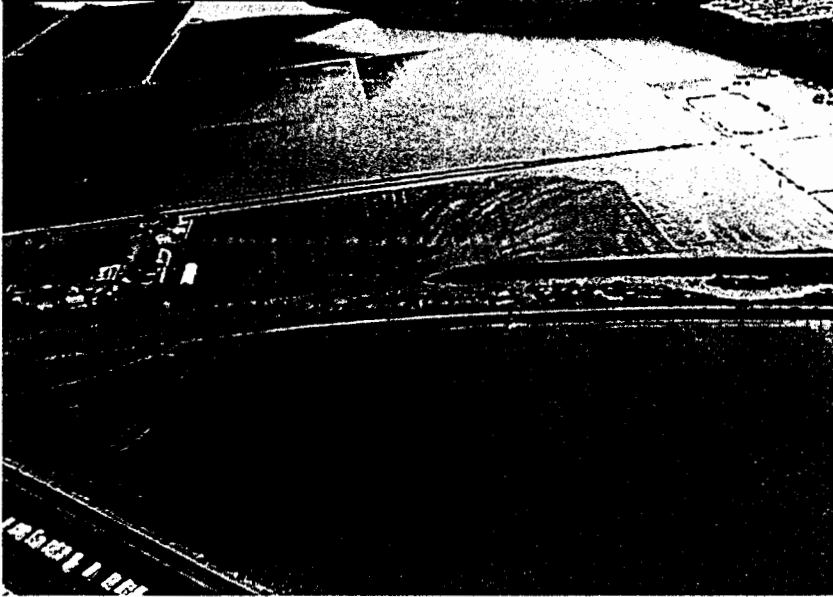
Flooded farmland in the aftermath of March 2001



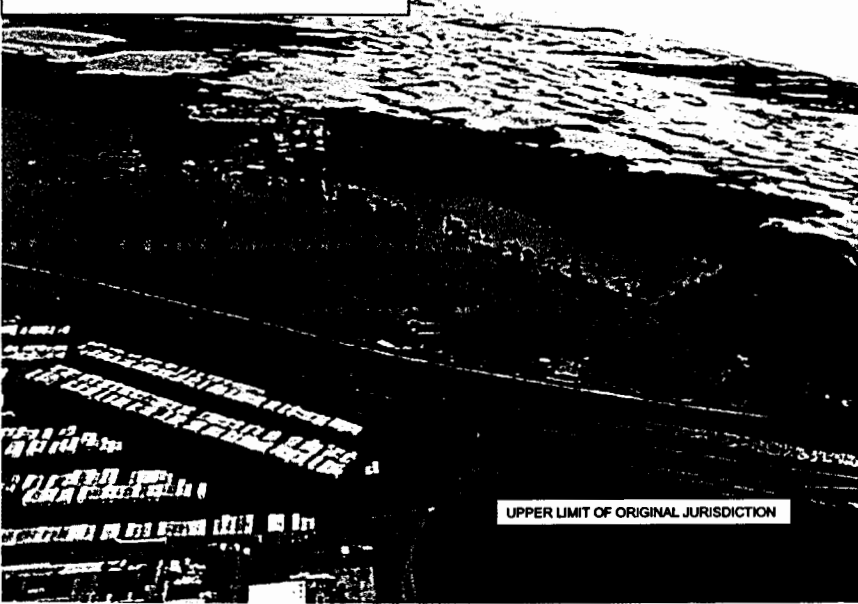
Beach in the north levee, March 2001

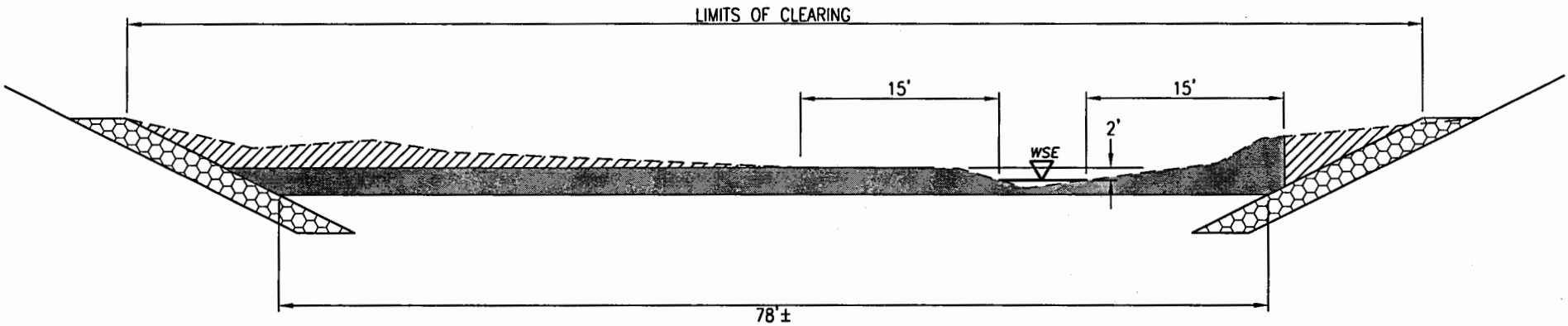


Aerial view of lower Cienega Valley, March 2001
looking southerly



Aerial view of lower Cienega Valley, March 2001
Southwesterly view

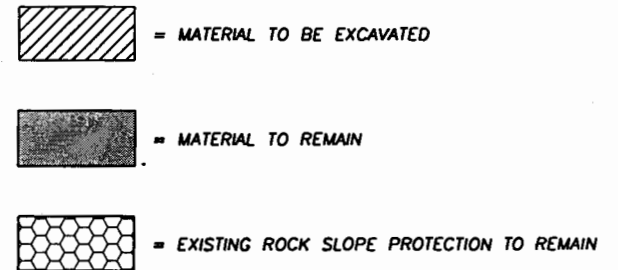




EXCAVATED MATERIAL SHALL NOT BE STOCK PILED IN THE CREEK CHANNEL

NOTES:

- 1) NO EXCAVATING ALLOWED WITHIN 15' OF THE WATER'S EDGE.
- 2) THE PLANE OF EXCAVATION BEGINS 2' ABOVE THE EXISTING WATER SURFACE ELEVATION (WSE) OR ORIGINAL CHANNEL BOTTOM (WHICHEVER IS HIGHER).
- 3) NO EQUIPMENT IS ALLOWED IN THE CHANNEL EXCEPT AT ORIGINAL EQUIPMENT CROSSINGS.



TYPICAL SECTION
Arroyo Grande Creek Channel

No Scale

Work Order No. P208208

CCC Exhibit
 (page 1 of 1 pages)

C

**Arroyo Grande Creek Flood Control Channel
Sediment Removal Project
Permit Condition Summary**

TIMING (PRE-, DURING, OR POST-CONSTRUCTION)	CONDITION	AGENCY
Pre, During, post Construction	Project area shall be photographed for purpose of developing reference library of instream and riparian habitat characteristics	NMFS
Pre-Construction	Vegetation within 15 ft of water's edge shall be NMFS County/Monitor clearly marked with high-visibility flagging to decrease disturbance	NMFS
Pre-Construction	Preconstruction surveys shall be performed by Service-approved biologists following a CDFG modified version of the Service's 1997 CRLF survey guidelines County.	USFWS CDFG County
Pre-Construction	The Service-approved biologists shall identify potential suitable translocation sites for CRLF before ground disturbance begins	USFWS
Pre-Construction	At least 15 days prior to the onset of activities, the County shall submit the name(s) and credentials of biologist(s) who would conduct activities specified in the BO	USFWS
Pre-Construction	No project activities shall begin until the County has received written approval from the Service that the biologists are qualified	USFWS
Pre-Construction	Surveys will be conducted two weeks before maintenance activities begin; two daytime visual surveys shall be conducted from banks or within creek when necessary; two nighttime surveys by spotlighting shall be conducted on two separate nights	USFWS
Pre-Construction	All CRLF found during surveys shall be captured by authorized biologist by using nets and bare hands	USFWS
Pre-Construction	California red-legged frogs or tadpoles found during surveys shall be captured and translocated immediately to appropriate habitat at redetermined release sites	USFWS
Pre-Construction	Vegetation that will be disturbed by subsequent construction shall be removed by hand during preconstruction surveys to facilitate finding and capturing CRLF	USFWS
Pre-Construction, During	Only Service-approved biologists shall participate in activities associated with capture, handling, and monitoring of CRLF	USFWS
Pre-Construction, During	In compliance with CDFG code, a Service-approved biologist will permanently remove, from within the project area, any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent practical	USFWS

Sediment Removal Project
Permit Condition Summary
page 2

TIMING (PRE-, DURING, OR POST-CONSTRUCTION)	CONDITION	AGENCY
Pre-Construction, During	A brief educational training session shall be conducted for all project personnel before any construction activities begin within the project area	USFWS CDFG County
Pre-Construction, During	Training shall include a description of potential Monitor sensitive species and their habitat in the project area, their protection afforded by the Endangered Species Act, protection measures to be implemented during construction, and project boundaries	USFWS CDFG County
Pre-Construction, During	The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal; routes and boundaries will be clearly marked, and these areas will be outside of riparian and wetland areas; where impacts occur, restoration will be required	USFWS
Pre-Construction, During	No equipment will be permitted to work in or have access through the flowing creek	USFWS County
Pre-Construction, During	All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 20 meters from any riparian habitat or water body; NRCS and County will ensure contamination of habitat does not occur; prior to work, NRCS will ensure that County has prepared a spill response plan and that workers are trained in spill prevention and response	USFWS
During Construction	Building materials and/or construction equipment shall not be stockpiled or stored where they could be washed into water or where they will cover aquatic or riparian vegetation	CDFG
During Construction	Substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering waters of the state	CDFG
During Construction	Any such materials placed within or where they may enter a stream or lake, shall be removed immediately	CDFG
During Construction	If, in the opinion of CDFG, conditions arise, or change, in such a manner as to be considered deleterious to the stream or wildlife, operations shall cease until corrective measures approved by the Department are taken	CDFG
During Construction	Areas of disturbance from all work activities shall be confined to smallest practical area.	USFWS

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TIMING (PRE-, DURING, OR POST-CONSTRUCTION)	CONDITION	AGENCY
During Construction	Litter or construction debris shall not be dumped within riparian/stream zone; all such debris and waste shall be picked up daily and properly disposed of at appropriate site	USFWS CDFG
During Construction	Monitor shall be present during all work activities to ensure avoidance of sensitive resources and make recommendations as needed	CDFG County
During Construction	Elevation of any area (relative to a permanent NMFS benchmark) shall not be directly reduced to an elevation less than 2.0 ft above water surface elevation	NMFS
During Construction	Proposed action shall be confined to period of 01 August through 15 November, and the County shall implement sediment and/or vegetation removal actions only once at a particular location	NMFS
During Construction	Sediment and/or vegetation shall be removed only from areas delineated on aerial photographs (locations 1-7 at Los Berros Creek, and locations 8-32 at Arroyo Grande Creek reviewed by NMFS)	NMFS
During Construction	A Service-approved biologist will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project area will be removed	USFWS
During Construction	Monitoring will be conducted of sediment and vegetation removal activities for purpose of identifying and reconciling any condition that could adversely affect steel head or critical habitat	NMFS
During Construction	Juvenile or adult steel head shall not be moved outside any work location without prior written approval from NMFS	NMFS
During Construction	Monitor shall be empowered to recommend measures for avoiding adverse effects to steel head and critical habitat	NMFS
During Construction	Riparian vegetation along flood channel banks (within 15 ft on both sides) providing minimal shade/cover over the water shall be preserved	USFWS NMFS CDFG County
During Construction	Expanding fifteen-foot setback where riparian vegetation is in successional growth stage or NMFS where it provides suitable habitat for sensitive species shall be implemented on an as needed basis during excavation	USFWS CDFG County

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TIMING (PRE-, DURING, OR POST-CONSTRUCTION)	CONDITION	AGENCY
During Construction	On a daily basis, check and maintain all equipment and vehicles that would be operated within identified work area to ensure proper operation and avoid potential leaks or spills	County
During Construction	Vehicles and all construction activities shall remain within well-defined construction areas and designated access roads; no vehicular traffic shall be allowed outside of these areas	USFWS
During Construction	Members of work crew shall be designated to monitor all construction activities to ensure (compliance with terms and conditions of BO)	USFWS
During Construction	A service-approved biologist shall be present at work site until all removal of CRLF, instruction of workers, and habitat disturbance has been completed	USFWS
During Construction	Authorized biologists shall conduct daily, visual survey of entire length of access roads to a distance of 35 feet from the creek for CRLF prior to the start of any vehicle traffic	USFWS
During Construction	Authorized biologists shall also conduct daily, visual survey of length of creek bed and any other habitat for CRLF that is within work area each morning before work begins	USFWS
During Construction	Morning surveys shall be conducted for five consecutive days; if no CRLF are found, surveys shall be conducted at least twice a week prior to start of work each morning	USFWS
During Construction	If CRLF are found at any time, or if rainfall is predicted or occurs, daily surveys shall be reinitiated until CRLF are not found for five consecutive days; CRLF observed in these areas shall be translocated as described above	USFWS
During Construction	Designated monitors shall be trained by authorized biologist to identify CRLF; designated monitors shall immediately notify authorized biologist if CRLF are discovered in work area; designated monitors are not authorized to capture or handle CRLF	USFWS
During Construction	NRCS or County shall report following information regarding relocation of CRLF on a weekly basis: date and time of capture, specific location of capture; approximate size, age and health of individual; and location of release site; information can be provided by facsimile at 805 664-3958	USFWS
During Construction	If work is stopped, the Service shall be notified immediately by Service-approved biologist or biological monitor	USFWS

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TIMING (PRE-, DURING, OR POST-CONSTRUCTION)	CONDITION	AGENCY
During Construction	All work shall cease in an area in which a federally listed resource is discovered; USFWS shall be notified immediately	USFWS CDFG County
During Construction	Monitor and Service-approved biologist shall be empowered to halt work activity that may injure or kill CRLF until they have been translocated by authorized biologist	USFWS NMFS
During Construction	Work activities will be completed between April 1 and November 1 of each year. If the County demonstrates a need to conduct activities outside this period, the NRCS will authorize activities after obtaining approval from the Service	USFWS
During, Post-Construction	County will implement best management practices, as identified by NRCS, to control erosion during and after project implementation	USFWS
During, Post-Construction	Maintenance activities will remove a significant amount of undesirable non-native, invasive vegetation (i.e., kikuygrass (<i>Pennisetum clandestinum</i>), giant cane (<i>Arundinaria gigantea</i>), and castor bean (<i>Ricinus communis</i>). These areas will be revegetated with native species and monitored to determine appropriate long-term strategies, for discouraging regrowth of non-native invasive species	USFWS
Post-Construction	Project sites will be revegetated with an appropriate assemblage of native riparian wetland and upland vegetation suitable for the area. A species list and restoration and monitoring plan will be provided for review and approval by the Service and the NRCS	USFWS
Post-Construction	Plan must include location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved	USFWS
Post-Construction	Aerial photos will be taken the year following the maintenance activity to document changes that are produced following project completion	USFWS
Post-Construction	Hydraulic models that are being prepared will be compared with actual effects to determine the efficiency of the models	USFWS
Post-Construction	Dense stands of willows left in place will be selectively pruned to encourage height and discourage "bushiness," thereby providing potential habitat while at the same time being more compatible with flood control requirements	USFWS

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TIMING (PRE-, DURING, OR POST-CONSTRUCTION)	CONDITION	AGENCY
Post-Construction	Perform post-completion survey to ensure elevation of any area (relative to a permanent benchmark) was not reduced to an elevation less than 2.0 ft above water surface elevation	NMFS
Post-Construction	A written monitoring report shall be provided to NMFS within 15 working days following completion of proposed action	NMFS
Post-Construction	Following construction, all trash and construction debris shall be removed from work areas	USFWS
Post-Construction	NRCS or County shall provide annual report to USFWS on activities conducted during each year related to the channel maintenance work; report shall be postmarked or submitted by January 31, and USFWS shall be notified in case of delay	USFWS
Post-Construction	Report shall contain brief discussion of NRCS/County/ activities completed and planned; any incidental take that resulted from project implementation, including form of take, when and where, and deposition of dead or injured animal(s); information on whether CRLF were relocated; approximate acreage of upland CRLF habitat which has been temporarily affected, impacted, or restored; problems encountered in implementing avoidance and minimization measures; recommendations for their modification; pertinent results of biological surveys and sighting records; and any other pertinent information	USFWS

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