

CALIFORNIA COASTAL COMMISSION

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RECORD PACKET COPY**Tu 6c****Staff Report and Recommendation on Consistency Determination****Consistency Determination****No. CD-31-99**

Staff:	TNP-SF
File Date:	4/7/99
45th Day:	5/22/99
60th Day:	6/6/99
Commission Meeting:	5/11/99

Federal Agency:**U.S. Army Corps of Engineers****Development Location:**

San Pedro Creek, Pacifica, San Mateo County (Exhibit 1).

Development Description:

Flood control project, consisting of widening stream channel, diversion pipeline, floodwall and berm, culvert and bridge replacement, and riparian and wetland restoration (Exhibit 2).

Executive Summary

On April 7, 1999, the Commission received a consistency determination from the U.S. Army Corps of Engineers for a flood control project on San Pedro Creek in Pacifica (Exhibits 1-2). The project will include a bypass culvert to carry high flood waters away from the main creek channel and will create a new creek channel with a higher capacity downstream from the culvert. The project will also restore approximately ten acres of riparian/wetland habitat which the new channel will meander through and which will act as a floodplain. San Pedro Creek supports steelhead trout and the California red-legged frog, both of which are listed under the Endangered Species Act. Most of the project is located outside the coastal zone.

The project is consistent with Section 30236 of the Coastal Act, which allows alternation of streams when necessary for flood control projects. The proposed project has been designed to minimize stream alteration and will have a net benefit on coastal resources.

Although the project will result in temporary impacts to sensitive species during construction of the project, the overall project will be beneficial to sensitive species, including steelhead trout and the red-legged frog. The project will result in a net increase of riparian habitat and will improve fish migration

through San Pedro Creek. The Army Corps of Engineers has coordinated with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish and Game to minimize the temporary impacts to resources during construction of the project. The Corps will continue to coordinate with these agencies during implementation of the project. Mitigation measures include timing construction to avoid steelhead trout migrations, minimizing erosion and siltation into San Pedro Creek by working only during the dry season and by using silt screens and sediment basins, and developing a mitigation and monitoring plan. Because of the net overall benefit to coastal resources from the project and because measures have been taken to reduce temporary impacts, the project is consistent with the marine and sensitive resource policies of the Coastal Act (Sections 30231 and 30240).

The project will have impacts on visual resources from Highway 1 due to construction activities and the temporary removal of vegetation. However, these impacts will be temporary and are not significant. The long-term visual effects will be beneficial to the area. Therefore, the project is consistent with the visual policies (Section 30251) of the Coastal Act.

Staff Summary and Recommendation:

I. Staff Summary

A. Project Description: The proposed project is designed to alleviate damage from flooding of San Pedro Creek in Pacifica. Flooding has been a persistent problem along San Pedro Creek due to insufficient drainage and channel capacity, erosion of stream banks, and degraded habitat. The proposed project has two main components to alleviate flooding: constructing a bypass culvert to carry high flows away from the main stream channel and creating a larger main stream channel within a restored wetland/riparian floodplain. The project is designed to assure that water continues to flow through the main channel year-round. The specific components of the project include (see Exhibit 2):

1. Replacement of Adobe Bridge with two box culverts to accommodate higher flows and construction of a 2,800 foot long bypass channel beginning at Adobe Bridge to divert high flow waters away from the main channel. The two box culverts are designed to divide creek flows between the main channel and the bypass culvert. Due to the placement of the culverts, low flows will continue to flow down the main stream channel. Water will be divided between the main channel and the bypass channel when flows exceed 120 cubic feet per second (cfs). The bypass channel can carry up to 1,500 cfs and will converge with the main channel at the proposed wetland restoration site. An energy dissipater will be installed where the bypass channel enters the wetland area to reduce erosion.
2. Restoration of approximately 10 acres of wetland/riparian habitat from the outlet of the bypass channel downstream to the Pacific Ocean. Restoration of this area will create a floodplain able to accommodate a 100-year flood event and will also improve riparian and wetland habitat. Approximately nine acres will be graded and revegetated east of Highway 1; an additional one-acre area will be established to the west of the highway.
3. Creation of a new stream channel along the lower reaches of San Pedro Creek, through the proposed wetland restoration area. The new stream channel will have a the capacity to accommodate 3,500 cubic feet per second of water flow. Once this channel is completed and water has been diverted to it, the existing channel will be filled, graded, and revegetated as part of the riparian/wetland restoration area.
4. Construction of a floodwall (2-5 ft. in height) and berm (1-3 ft. in height) along the eastern wetland restoration area to aid in protecting existing development against floods.

Approximately 80,000 cubic yards of material will be excavated for the entire project. The material will be disposed of at Shamrock Ranch, which is currently used for storage of excavated soils. It is expected that Shamrock Ranch will ultimately sell part or all of the soils from the project. Shamrock Ranch is located south of the project site.

B. Status of Local Coastal Program: The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the California Coastal Management Program (CCMP), it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The Commission has certified the LCP for Pacifica, but it has not been incorporated into the CCMP.

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

II. Staff Recommendation:

Staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission *concur* with the U.S. Army Corps of Engineer's consistency determination.

The staff recommends a **YES** vote on this motion. A majority vote in the affirmative will result in adoption of the following resolution:

Concurrence:

The Commission hereby *concurs* with the consistency determination made by the U.S. Army Corps of Engineers for the proposed project, finding that the project is consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

III. Findings and Declarations:

The Commission finds and declares as follows:

A. Stream Alteration:

Section 30236 of the Coastal Act limits when a stream or river can be altered. This section states:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public

safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

The proposed project will alleviate flooding problems and damage to existing development along the middle and lower reaches of San Pedro Creek by creating a new stream channel to increase the capacity of the stream, creating a larger floodplain to contain a 100 year flood, and diverting a significant portion of high flows through an underground culvert. The existing channel will be filled in and graded when water has been diverted to the new channel. The project is necessary to protect existing development from continued flooding. The Corps' EIR/EIS states that over 450 residential and commercial structures lie within the 100 year flood plain of lower San Pedro Creek. Floods have historically occurred in this area, often with events at or less than a five-year flood, and have caused significant damage to both residential and commercial structures.

Although the primary purpose of the project is for flood control, the project has been designed to enhance riparian habitat; the enhancement of this habitat will significantly improve fish and wildlife habitat. Therefore, the Commission finds that the project is consistent with the stream alteration policies of the CCMP.

B. Environmentally Sensitive Habitat and Marine Environment:

Section 30231 of the Coastal Act states:

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

Section 30240 of the Coastal Act provides for the protection of sensitive habitat areas. This section states, in part:

(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.

The proposed project will significantly improve riparian and wetland resources along San Pedro Creek, and will enhance fish and wildlife habitat. Historically, the project area supported a large lake and extensive wetland vegetation. Much of this habitat has been lost due to agricultural uses and urbanization. Currently, the site supports a mix of riparian vegetation, ruderal scrub-woodland, ruderal grassland, and developed areas. Much of the riparian vegetation provides high value habitat for steelhead trout which are resident in San Pedro Creek. San Pedro Creek also supports the California red-legged frog. Both species are listed as endangered or threatened under the Endangered Species Act.

Although the project's focus is for flood control, the project will lead to significant habitat benefits. In addition to creating a more natural stream channel, the project will restore approximately ten acres of

riparian/wetland habitat. Approximately nine acres will be restored east of Highway 1. An additional one acre area will be restored west of Highway 1; this wetland site will experience some tidal influence. According to the Corps' EIS/EIR, this western restoration site once supported a coastal marsh, which has been destroyed by past agricultural and development activities. The area is now primarily grassland vegetation or is a mix of developed or barren areas. Riparian vegetation is found along the stream banks.

Creation of the wetland will involve extensive grading for recreating the channel through the western wetland area, widening the existing channel east of Highway 1, and excavating the surrounding land to create a floodplain. Although implementation of the project requires much of the existing high value riparian vegetation to be removed, the site will be restored with riparian forest, scrub-shrub, and emergent wetland species. The eastern wetland area will also be planted with coastal meadow species. Overall, the project will lead to a net gain of 1.9 acres of riparian habitat, 2.44 acres of riparian scrub-shrub, and 1.77 acres of riverine aquatic habitat. Construction is expected to take three years to complete.

The project will also improve fish migration for the steelhead trout. As part of the project, a series of weirs will be placed in the streambed through the culverts at Adobe Drive bridge. The weirs will create stepped pools for easier fish passage. Although the bypass channel is designed to convey high flows away from San Pedro Creek at the Adobe Drive bridge, the design assures that water will continue to flow through the main stream channel year-round. Flows above 120 cubic feet per second (cfs) will be divided between the main channel and the bypass channel, reducing the flood potential which occurs with the higher flows, but assuring water flows through the main channel year-round. This design will assure protection of the riparian habitat and fish migration. The bypass channel converges with the main stream channel at the riparian/wetland restoration site. In addition, the bypass culvert is designed to reduce the likelihood of steelhead entering the culvert for migration passage rather than the main stream channel.

To assure the long-term benefits from the project, the Corps is developing a long-term mitigation and monitoring plan. Although the plan is not yet finalized, the Corps has agreed to submit it to Commission staff for review. In general, the plan will assure the long-term viability of the riparian/wetland restoration, and includes monitoring vegetation and the viability of the steelhead trout population. The monitoring plan will also include measures for reporting any condition or activity that is detrimental to achieving successful restoration and will include recommendation(s) for corrective action(s).

Temporary Impacts to Sensitive Resources:

Although overall the project is beneficial to sensitive resources, implementation of the project will have temporary impacts to the riparian habitat, and may have temporary impacts to water quality and specific species. The Army Corps of Engineers has taken measures to minimize these impacts and has coordinated with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game. The Corps will continue to coordinate with these agencies during implementation of the project.

Construction of the new stream channel and excavation of the floodplain will result in removal of existing riparian vegetation. Although the site will be revegetated, temporary impacts will continue until the vegetation matures. Removal of the existing vegetation also reduces the shaded habitat along the stream banks, which is important for fish species. To reduce the impacts from a loss of shade, shade trees will be planted as part of the first year revegetation effort. While it may take many years for the new channel to fully recover all the elements of shaded riverine aquatic cover, the channel would provide some habitat value during the first year, and considerable habitat value within several years.

Construction of the culverts at Adobe Drive bridge will also occur within the existing stream channel, potentially affecting resources. Construction activities may lead to some mortality of fish species, including the endangered steelhead trout, and could affect water quality in the stream. To minimize direct impacts to fish, construction activities will avoid the steelhead trout migration seasons. The Army Corps of Engineers has also taken measures to minimize impacts to water quality, including limiting construction to the dry season and using silt screens and other sediment retention devices in the stream channel and along streambanks. These measures will reduce erosion and siltation into the stream. To fully protect the water quality of the stream, the Corps will develop a final grading plan prior to construction of the project. Although the grading plan for the project is not yet completed, the Corps has agreed to submit the plan to Commission staff for review.

The Corps has also taken measures to minimize impacts on the California red-legged frog during construction of the project. Mitigation measures include surveys and live trapping for frogs prior to construction activities, maintaining a buffer zone of riparian vegetation between the existing stream and the new stream channel, and placing fencing between riparian areas and the construction zone so frogs cannot cross into the construction area.

In conclusion, the project will benefit coastal resources by restoring wetland and riparian habitat; improving foraging, nesting, and breeding habitat for waterfowl; enhancing fish passage in San Pedro Creek; and improving habitat for sensitive amphibian species. Although the project will have some temporary impacts to resources, the Corps has taken measures to minimize those impacts. Overall, the project complies with the goals of Coastal Act Sections 30231 and 30240. The Commission therefore finds that the project is consistent with the sensitive resource and habitat policies of the CCMP.

C. Visual Resources:

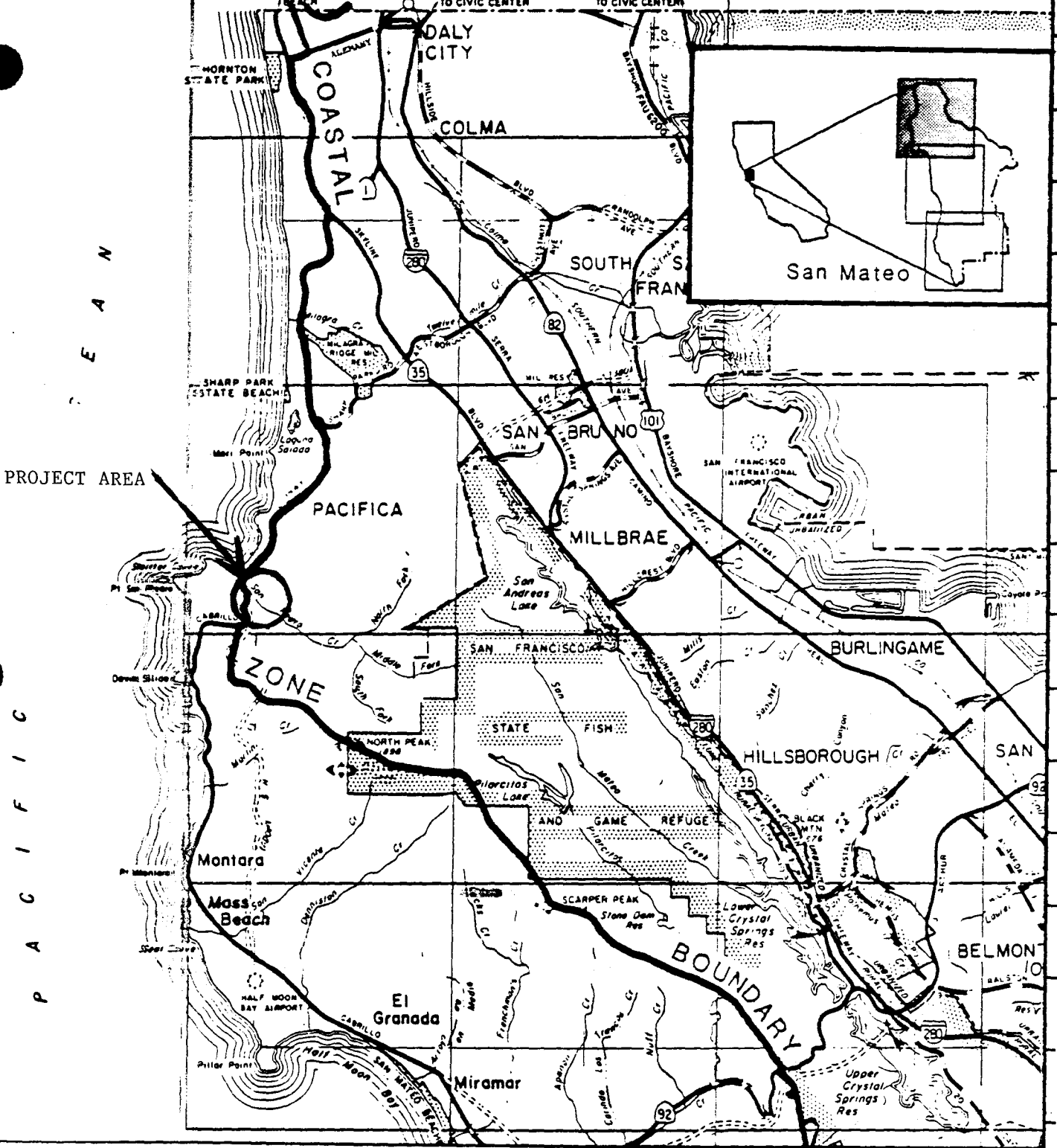
Section 30251 of the Coastal Act states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. ...

The project will result in temporary visual impacts due to construction activities and temporary loss of vegetation in a semi-rural area along Highway 1. In addition, construction of the floodwall and berm will be visible along San Pedro Creek until vegetation matures. However, these impacts are temporary and are not significant. Overall, the long term benefits from the project will be beneficial. The Commission finds the project is consistent with the visual resource policies of the CCMP.

B C D E F G H I J K L M N O

SAN FRANCISCO CITY AND COUNTY



PROJECT AREA

ZONE

BOUNDARY

PACIFIC OCEAN

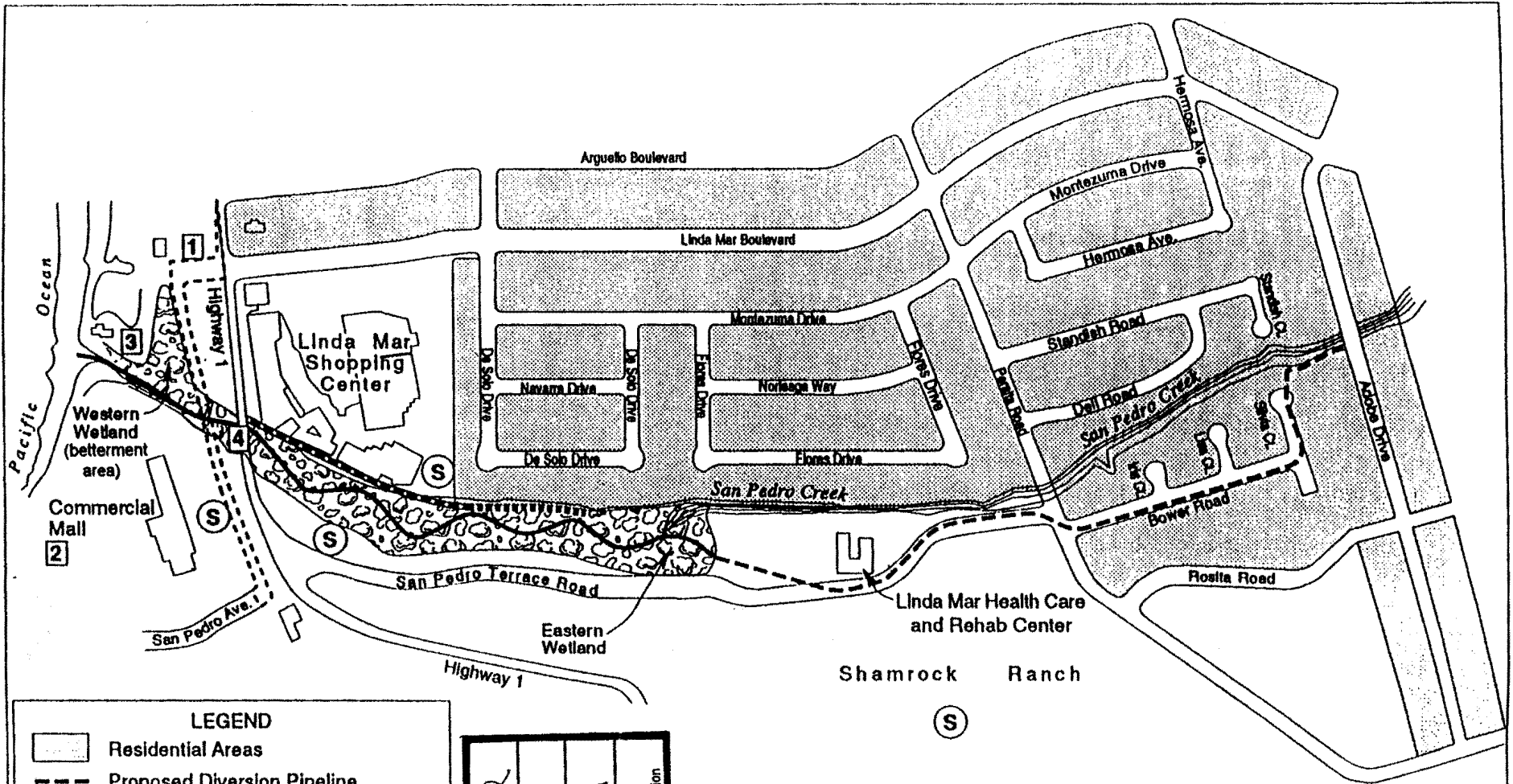
California Coastal Commission

LOCATION MAP



County of San Mateo

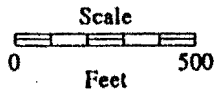
EXHIBIT NO. <u>1</u>
APPLICATION NO.
<u>CD-31-99</u>
California Coastal Commission



LEGEND

	Residential Areas
	Proposed Diversion Pipeline
	Proposed Stream Channel
	Proposed 800-foot-long Floodwall
	Proposed 450-foot-long Berm
	Potential Construction Staging Area

EXHIBIT NO. 2
APPLICATION NO.
SD-31-99
California Coastal Commission



Shamrock Ranch