#### CALIFORNIA COASTAL COMMISSION

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## STAFF REPORT AND RECOMMENDATION

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### **ON CONSISTENCY DETERMINATION**

Consistency Determination No.	CD-060-03
Staff:	JRR-SF
File Date:	7/1/2003
60th Day:	8/30/2003
75th Day:	9/14/2003
Commission Meeting:	8/5/2003

# FEDERAL AGENCY: National Park Service

# DEVELOPMENT LOCATION:

Giacomini Ranch, Golden Gate National Recreation Area, southeast of the town of Inverness, Marin County (Exhibit 1)

# DEVELOPMENT DESCRIPTION:

Giacomini Ranch Emergency Levee and Culvert Repair Project (Exhibit 2)

# SUBSTANTIVE FILE DOCUMENTS: (1

(See Page 10)

# **EXECUTIVE SUMMARY:**

The Park Service proposes to repair the levee and replace two 36-inch culverts along Fish Hatcheries Creek, on Giacomini Ranch, which is within the Golden Gate National Recreation Area, southeast of the town of Inverness, Marin County. In the winter of 2002-2003, damage occurred to the levee and culverts on Fish Hatchery Creek where it flows from the west pasture of the Giacomini Ranch into Tomales Bay. The culverts have deteriorated significantly, with the outboard portion collapsing downward into the creek bed. This collapse appears to have caused a back eddy of flows and severe erosion of the outboard portion of the levee behind the culvert headwall. Without repair, the levee is in danger of inadvertent breaching. Because increasing tidal influence could elevate flood risk to adjacent private residences and roads, the Park Service proposes to repair the levees.

The proposed project includes fill within coastal waters and is consistent with Section 30233(a) of the Coastal Act, the wetland fill policy of the CCMP. Specifically, the fill is

for an incidental public service purpose and will have temporary impacts to wetland habitat, because the Park Service will remove the fill at the completion of the project. No additional mitigation is necessary. The project also includes activities within Environmentally Sensitive Habitat Areas (ESHAs) and is consistent with Section 30240 of the Coastal Act, the ESHA policy of the CCMP. The project is dependent on the ESHA resources because it is in part necessary to protect sensitive habitat areas from saltwater intrusion. Also, the project will not significantly disrupt the habitat resources because the Park Service has timed the project to avoid nesting, breeding, and migratory seasons of sensitive species in the area and the Park Service will restore minor impacts to riparian habitat. In addition, the project is consistent with Section 30231 of the Coastal Act, the Water Quality Policy of the CCMP, because it includes measures to minimize and avoid discharges into coastal waters and it will prevent water quality impacts associated with unmanaged breaching of the levee. Also, the project will not affect agricultural resources, and thus is consistent with Section 30242 of the Coastal Act, the Agricultural Policy of the CCMP. Finally, the project will have temporary impacts to public access to the area during construction. However, the Park Service will not interfere with existing limited public access to the area after completion of the project. Therefore, the project is consistent with Section 30210 of the Coastal Act, the Access Policy of the CCMP.

# STAFF SUMMARY AND RECOMMENDATION:

I. <u>Project Description</u>. In the winter of 2002-2003, damage occurred to the levee and culverts on Fish Hatchery Creek where it flows from the west pasture of the Giacomini Ranch (Golden Gate National Recreation Area, Marin County) into Tomales Bay. Fish Hatchery Creek is a perennial creek with a 0.91-square mile watershed. Two 36-inch culverts with one-way flapgates currently regulate Creek flows from the west pasture into Tomales Bay. During the past winter, the culverts have deteriorated significantly, with the outboard portion collapsing downward into the creek bed. This collapse appears to have caused a back eddy of flows and severe erosion of the outboard portion of the levee behind the culvert headwall. Without repair, the levee appears to be in danger of inadvertent breaching.

The Park Service proposes to repair the levee and culverts to their original configuration through replacement of the two 36-inch culverts, repair of the outboard headwall, backfilling of the eroded levee to the outboard headwall, and installation of modified one-way flapgates that would allow some tidal inflow into, as well as outflow of freshwater flows from, Fish Hatchery Creek. Equipment access to the Project Area will be along Sir Francis Drake Boulevard. The Park Service will remove approximately 30 feet of riparian scrub vegetation (arroyo willow) from the fence line to allow access to the site. The Park Service will flag vegetated areas that it will clear and, if necessary, survey a week before project implementation to ensure that there is no active nesting occurring in the area.

The Park Service proposes the following measures to minimize sedimentation into Fish Hatchery Creek and Tomales Bay during construction: 1) installation of solid plastic sediment fencing along the shoreline on both the inboard and outboard sides of the levee; 2) installation of cofferdams upstream and downstream of the levee to enable

the site to be temporarily dewatered and to minimize any increase in sediment levels within creek waters due to construction activities; and 3) timing the project so that flows of Fish Hatchery Creek will be at their lowest.

Cofferdams are necessary, because, even at low tides, the project area is not completely dry. The Park Service will use approximately 750 cubic feet of temporary fill to construct a gravel cofferdam. Once it installs the cofferdams, the Park Service staff will seine both the inboard and outboard portions of the creek to remove any fish species inadvertently detained. After seining, the Park Service will dewater the site and remove the existing culverts, flapgates, and fill material, which it will stockpile on the levee or the pullout along Sir Francis Drake Boulevard and reused for re-establishing the levee. The Park Service will operate all excavation equipment from an upland location (i.e., top of levee) and not in the stream channel.

The Park Service will install two new 36-inch culverts at the same configuration and elevation as the old culverts and two light-duty cast iron one-way flapgates. The Park Service will modify the flapgates such that openings are adjustable to allow some tidal inflow in a manner that mimics the normal extent of tidal inflow observed in the past during high tide events. Finally, the Park Service will repair or replace deteriorated boards in the existing outboard wooden headwall structure. Once it repairs the headwall and installs the culverts, the Park Service will replace the excavated and stored backfill up against the headwall. The Park Service believes that it will need approximately 85 cubic yards of fill to rebuild the levee. It will obtain additional fill either from existing sediment spoil piles on the Giacomini Ranch or from other sources of weed-free material. The Park Service will grade and compact the backfilled area to match the existing levee height.

After completion of the levee, the Park Service will install the following erosion control measures: 1) sediment erosion blanket over all areas of new fill to ensure that precipitation and surface run-off during winter storms does not cause sediment to flow into the creek; 2) native grass seed mix in the backfilled areas to increase sediment stability; and 3) a water diversion swell or water bar along the fence line to divert storm water flow from Sir Francis Drake Boulevard from running down the levee access path. Once construction is completed, the Park Service will remove the cofferdams to allow reestablishment of creek flows and cofferdam material will be disposed of in an upland location. Finally, the Park Service will re-install fencing along Sir Francis Drake and replant the construction corridor in the riparian area with willow sprigs. No irrigation is necessary because a combination of precipitation, surface run-off, and seep flow from the adjacent Inverness Ridge will allow the establishment of the willow sprigs even though this floodplain terrace is some distance from the creek water table. The Park Service will collect the willow material from other areas along Sir Francis Drake Boulevard.

#### II. 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 an LCP that the Commission has certified and incorporated into the California Coastal Management

Program (CCMP) provides development standards that are applicable to the project site, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has certified Marin County's LCP and incorporated it into the CCMP.

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#### III. Federal Agency's Consistency Determination.

The National Park Service has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

#### IV. Staff Recommendation.

The staff recommends that the Commission adopt the following motion:

**A.** <u>Motion</u>. I move that the Commission concur with consistency determination CD-060-03 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 (CCMP).

**B.** <u>Staff Recommendation</u>. The staff recommends a YES vote on this motion. Passage of this motion will result in a concurrence 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.

C. <u>Resolution to Concur with Consistency Determination</u>. The Commission hereby concurs with consistency determination CD-060-03 by the National Park Service, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

#### V. Findings and Declarations.

The Commission finds and declares as follows:

A. Wetland Fill. Section 30233(a) of the Coastal Act provides, in part, that:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

...

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

...

The proposed project includes the temporary placement of 750 cubic yards of fill for the construction of cofferdams and 85 cubic yards of fill for the reconstruction of the levee. The reconstruction of the levee will not affect wetlands because it will occur within the footprint of the original levee. In other words, it will not expand the size of the levee, and thus will not result in the loss of wetland habitat. The cofferdams, however, will occur within the stream, which constitutes "fill" under the Coastal Act, and thus the Commission must examine it for consistency with Section 30233 of the Coastal Act. Under Section 30233(a), filling of coastal waters is limited to those cases where the proposed project is an allowable use, where there is no feasible less environmentally damaging alternative, and where there is mitigation to minimize environmental impacts.

1. <u>Allowable Use</u>. Section 30233(a) does not authorize wetland fill unless it meets the "allowable-use" test. To comply with this requirement, the activity must fit into one of eight categories of uses permitted for wetland fill enumerated in Sections 30233(a)(1-8). The proposed project is consistent with Section 30233(a)(5). This section authorizes fill for "*Incidental public service purposes*."

In order to determine if the fill is for an incidental public service purpose, the Commission must determine that the project is both incidental and a public service. Since the Park Service, a public agency, will construct the proposed levee repairs in order to protect adjacent development, agricultural land and habitat, the fill is clearly for a public-service purpose. The Commission must also determine if the "public-service purpose" represented by this project is "incidental" within the meaning of that term as it is used in Section 30233(a)(5).

The courts have defined the term incidental as "depending upon or appertaining to something else as primary" (*Davis v. Pine Mountain Lumber Co.* (1969) 273 Cal.App.2d 218, 222-223 [77 CR 825].) In this case, the primary activity is to maintain the flood-protection capacity of the existing levees. Specifically, the Park Service proposes to remove the deteriorated portions of the levee, replace the culverts and flapgates, and rebuild the levee to its original configuration. Most of the fill associated with the project is a result of the cofferdams that are necessary to dewater the area around the levee. The Park Service proposes to remove the cofferdams after the completion of the levee. Therefore, that fill will be temporary, which is similar to the examples given in Section 30233(a)(5), and it is not the primary purpose of the project. Therefore, the Commission finds that the cofferdams are for an incidental public service purpose and consistent with the allowable use policy of Section 30233(a) of the Coastal Act.

2. <u>Alternatives and Mitigation</u>. Section 30233(a) also requires wetland fill to be consistent with the alternative and mitigations tests of that section. The proposed project is necessary to prevent failure of the levee, which would result in impacts to adjacent residential units, agricultural land, and habitat areas. Specifically, there are several residential developments and Sir Francis Drake Boulevard that would be flooded if this levee fails. The levee also protects the existing agricultural use of the west pasture. In addition, the existing levee protects red-legged frog breeding habitat and riparian areas. The failure of the levees would adversely affect these habitats

because such an event would allow saltwater intrusion into these freshwater habitats thereby degrading their resource values.

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Finally, the Park Service believes that maintaining the levees is necessary to protect the existing conditions of the area as it plans and investigates habitat restoration of this area. The Park Service is currently planning to restore wetlands at Giacomini Ranch once agricultural use of the site ends. The Park Service has already completed most of the environmental baseline studies and is currently developing restoration alternatives for the site. The Park Service needs to prevent any inadvertent breaching of levees from erosion until it fully designs and analyzes a plan for controlled removal of structures and breaching or lowering of levees. The proposed project also maintains the integrity of the NEPA/CEQA planning process by ensuring that an inadvertent levee breach does not set a precedent for future action.

It is clear that the proposed levee repairs are necessary to protect existing structures, uses, and resources. The proposed repair will restore the levees to their original configuration and will not result in a loss of habitat. As described above, the proposed fill is necessary to construct cofferdams on either side of the eroded levee, so that the Park Service can dewater the construction area. Once it reconstructs the levee, the Park Service will remove the cofferdams. Therefore, the project will not result in a loss of wetland habitat. Additionally, as described in the Habitat and Water Quality Sections below, the Park Service proposes additional mitigation measures to minimize and mitigate for adverse effects to water quality and habitat resources from the project. With these measures, the project will not adversely affect wetland resources and it will allow the Park Service to continue with its wetland restoration planning for this area. Therefore, the project is the least environmentally damaging alternative and no additional mitigation is necessary.

3. <u>Conclusion</u>. As described above, the proposed wetland fill is for an incidental public service purpose, is the least damaging feasible alternative, and includes feasible mitigation measures. Therefore, the Commission finds that the project is consistent with the wetland fill policy of the CCMP.

**B.** <u>Environmentally Sensitive Habitat Area</u>. Section 30240 of the Coastal Act provides that:

(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.

There are several ESHAs near the project site. These include riparian habitat, redlegged frog breeding habitat, salt marsh, and possibly steelhead trout habitat. The Park Service describes the habitat value of the project site as follows: Saltmarsh common yellowthroat (Geothylpis trichas sinuosa; FSC) nest in riparian areas along Sir Francis Drake Highway, while California black rails (Laterallus jamaicensis coturniculus; CT) are residents of the undiked coastal salt marsh directly northeast of the Project Area. ... California clapper rails (Rallus longirostris obsoletus; FE) have sporadically been observed in the undiked marsh, but there are no recent breeding records in Tomales Bay, and they were not observed or "heard" during surveys conducted by Avocet Research Associates and PRBO in 2002 or 2003 (Avocet Research Associates 2002, J. Evens, pers. comm.). The breeding season is also completed by that point for the southwestern river otter (Lutra canadensis sonorae; FSC), which has located burrows in the past in the levee directly east of the Project Area (J. Evens, pers. comm.). The Park Service will conduct a burrow survey prior to construction to ensure that otters are not actively using the burrow.

Movement of anadromous species such as central California coast coho salmon (Oncorhynchus kisutch; FT) or central California coast steelhead (Oncorhynchus mykiss irideus; FT) typically does not occur in downstream areas such as southern Tomales Bay during the summer. The status of salmonid species in Fish Hatchery Creek is unknown. One Oncorhynchus mykiss smolt was observed on the west side of Sir Francis Drake Highway in 2002 (S. White, pers comm.), but it is uncertain whether this was a resident rainbow trout or an ocean-bound steelhead. The watershed is probably too small and has too steep a gradient for species such as coho salmon (B. Ketcham, pers comm.). The proposed flapgate modifications will continue to allow any anadromous that use Fish Hatchery to migrate in and out of the diked portion, and timing of construction during the late summer should ensure that there are no potential impacts to migrating salmonids. As noted before, seining will be conducted before dewatering of creek areas impounded by the coffer dams to minimize impacts to other fish and aquatic species.

Detailed surveys conducted by U.S. Geological Survey biologist Gary Fellers in 2002 showed that adult and juvenile California red-legged frogs (Rana aurora draytonii; FT) occur in selected portions of Fish Hatchery Creek and a freshwater marsh adjacent to the creek (Fellers and Guscio 2002). The closest documented sighting was approximately 1,200 feet upstream of the Project Area (Fellers and Guscio 2002). Surveys conducted during the fall, spring, and summer seasons suggest that frogs move out of the creek and marsh in the summer, probably into seep-fed pools in the narrow riparian corridor that separates the freshwater marsh from Sir Francis Drake Highway or in riparian areas across Sir Francis Drake Highway (Fellers and Guscio 2002). There was only one sighting of northwestern pond turtle (Clemmys marmorata mormorata; FSC) in the Giacomini Ranch's West Pasture at the confluence of Fish Hatchery Creek and a drainage informally named Old Slough, approximately 1,800 feet from the Project Area. Again, timing of construction should avoid any potential impacts to aestivation of this species.

Two special status plant species occur in the vicinity of the Project Area --Humboldt Bay owl's --clover (Castilleja ambigua ssp. humboldtiensis; FSC) and Point Reyes bird's-beak (Cordylanthus maritimus ssp. palustris; FSC; Parsons, in prep.). The closest occurrence is approximately 200 feet east of the Project Area. No construction activity will occur near either of the species' populations, nor does the Park Service anticipate that there will be any indirect effect of the proposed Project on either of these species or their habitats. It should be noted that both of these species are annuals that have largely completed growth, flowering, and seed set by late summer.<sup>1</sup>

Based on the above information, the project is within and adjacent to ESHA. Therefore, the Commission must find the project consistent with Section 30240 of the Coastal Act. This section requires the Commission to find that the project will avoid significant disruption of the habitat and is dependent on the sensitive resources.

Because the project will protect existing habitat and will avoid interference with the Park Services habitat restoration planning efforts, it is dependent on the sensitive resources. As described above, the purpose of the project is, in part, to protect existing sensitive resources from damage associated with levee failure. The nearby red-legged frog habitat and riparian habitat along Sir Francis Drake Boulevard might be adversely affected if the levee fails. Mainly, a levee failure would allow saltwater intrusion from Tomales Bay into these habitat areas. Both of these habitat types are will be adversely affected by the increased salinity. Additionally, the part of the purpose of the project is to maintain the existing conditions while the Park Service develops a habitat restoration plan for the area. As described above, the Park Service has already evaluated existing conditions of the area and is currently developing habitat restoration alternatives. A levee failure would affect the Park Service restoration planning process and may limit the range of restoration alternatives. The proposed project would protect the existing habitat resources from increased salinity and would avoid any impacts to the Park Services habitat restoration process. Therefore, the Commission finds that the project is dependent on the sensitive resources.

The project will also avoid significant disruption to the sensitive habitat because it will either avoid impacts to sensitive habitat or the impacts will be temporary. The Park Service proposes to conduct the repairs in late August or early September to avoid any impacts to sensitive species. At this time of year, the trout are not migrating in this portion of the watershed. Additionally, the Park Service will return the stream to its preproject condition, and thus the project will not affect steelhead trout. Also, the Park Service selected the late summer season for this project to avoid nesting birds and breeding river otters. Additionally, the project site is approximately 1,200 feet from the closest red-legged frog habitat, which is too far away from the site for the project to affect it. Finally, the Park Service will clear approximately 30 feet of riparian habitat adjacent to Sir Francis Drake Boulevard. Clearly, this impact is the most significant impact from the project. However, after it repairs the levees, the Park Service will replant riparian vegetation within the affected area and the impact to the riparian habitat

<sup>&</sup>lt;sup>1</sup> Categorical Exclusion Form, Giacomini Emergency Levee and Culvert Repair Project, 6/10/03, pp. 5-6.

will be temporary. Therefore, the Commission finds that the project will avoid significant disruption to ESHA.

In conclusion, the Commission finds that the project is dependent on sensitive resources and will avoid significant disruptions to the habitat. Therefore, the Commission finds that the project is consistent with the ESHA policy of the CCMP.

#### C. <u>Water Quality</u>. Section 30231 of the Coastal Act provides that:

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.

The proposed project involves construction activities that include using heavy equipment and removing and importing fill within and adjacent to coastal waters. The Park Service proposes several measures to avoid or minimize water quality effects during construction. These measures include the following: 1) placement of solid plastic sediment fencing along the shoreline of both sides of the levee to ensure that sediment does not enter the creek; 2) installation of a cofferdams upstream and downstream of the repair area to temporarily dewater the stream and minimize sedimentation into the creek; 3) operating all excavation equipment from upland locations (i.e., no equipment will operate in the stream); and 4) timing the project so that flows of Fish Hatchery Creek will be at their lowest. After completion of the levee repairs, the Park Service will install the following erosion control measures: 1) placement of sediment erosion blanket over all areas of new fill to ensure that precipitation and surface run-off during winter storms does not cause sediment to flow into the creek; 2) planting of native grass seed mix in the backfilled areas to increase sediment stability; and 3) installation of a water diversion swell or water bar along the fence line to divert storm water flow from Sir Francis Drake Boulevard from running down the levee access path.

With these measures, the project will not adversely affect water quality resources. Additionally, the project will avoid water quality impacts by reducing sedimentation into the stream from the eroding levee, increasing water circulation by replacing the collapsed culverts, and avoiding saltwater intrusion into freshwater areas, which could occur if the levee fails. Therefore, the Commission finds that the proposed project will maintain and protect water quality resources and is consistent with the Water Quality Policy of the CCMP.

D. Agricultural Resources. Section 30242 of the Coastal Act provides that:

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (I) continued or renewed agricultural use is

not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

The proposed project is located within an area that the Park Service allows the grazing of dairy cows. The Park Service purchased 550 acres of the Giacomini Ranch in early 2000 (the current land owners will retain the remaining 13 acres). The acquisition agreement allows the current landowners to continue their agricultural operation until 2007, after which the Park Service will restore wetlands and other habitats on the site. The proposed levee repair project will restore the levee to its original configuration and will not result in a loss of agricultural lands. Additionally, the project will prevent flooding within the west pasture and will allow continued agricultural use of that area. Therefore, the Commission finds that the project is consistent with the Agricultural Policy of the CCMP.

E. <u>Public Access</u>. Section 30210 of the Coastal Act provides that:

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.

The proposed project is located between the first public road and the sea. Technically, the Park Service does not allow the public to use the levee or the other ranch property for access to the shoreline or for recreational purposes. However, it has observed public use of the area for bird watching and access to Tomales Bay. The proposed project may interfere with these existing uses during construction, but after completion of the project, the public may continue to use the site. If the levee fails, it will block the public from using the area beyond the failure, and therefore, the repair project will protect existing access and recreational use of the area. Finally, the Commission understands that the Park Service is evaluating public access and recreational use of the area in its wetland restoration planning for the site. When it reviews a consistency determination for that project, the Commission can more thoroughly address public access and recreational issues for this area. In conclusion, the Commission finds that the proposed project is consistent with the Public Access Policy, Section 30210, of the CCMP.

#### VI. Substantive File Document.

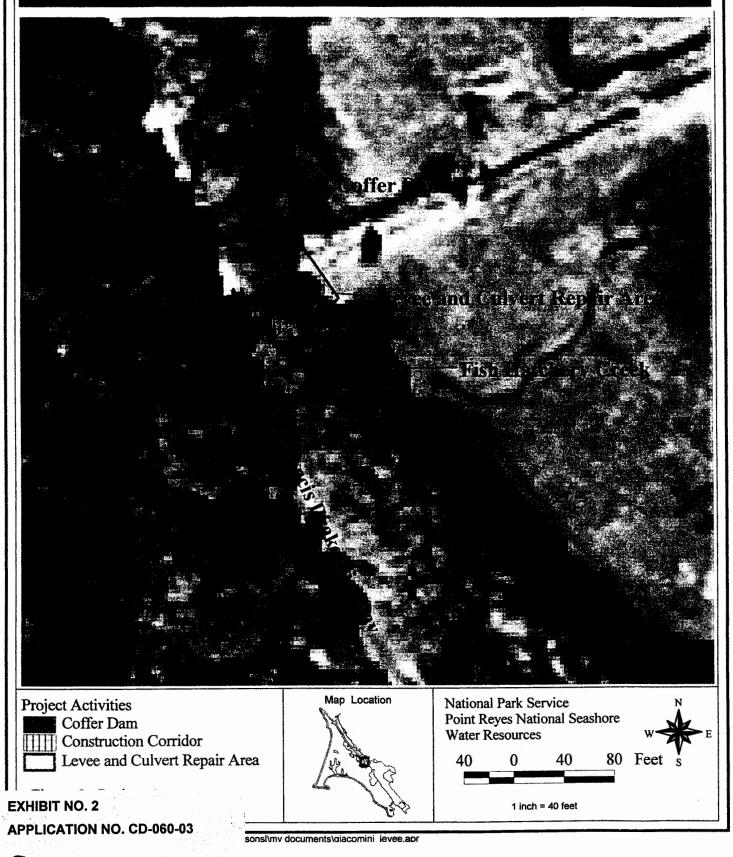
- 1. Environmental Screening Form.
- 2. Categorical Exclusion, Giacomini Emergency Levee and Culvert Repair Project, 6/10/0.



California Coastal Commission

# Giacomini Ranch Emergency Levee and Culvert Repair Project

Golden Gate National Recreation Area



California Coastal Commission