

## CALIFORNIA COASTAL COMMISSION

CENTRAL COAST AREA OFFICE  
725 FRONT STREET, SUITE 300  
SANTA CRUZ, CA 95060  
(408) 427-4863

HEARING IMPAIRED: (415) 904-5200



W17#19

Staff: R. Hyman  
File Date: 5/16/97  
60th Day: 7/16/97  
Staff Report: 5/19/97  
Hearing Date: 6/10-13/97  
Commission Action:

COMBINED STAFF REPORT: CONDITION COMPLIANCE  
and COASTAL CONSERVANCY ENHANCEMENT PLAN

APPLICATION NO.: 3-89-4                      Conservancy Project No. CP-2-97

APPLICANT: MONTEREY COUNTY DEPARTMENT OF PUBLIC WORKS c/o Monterey  
County Flood Control & Water Conservation district (now the WATER  
RESOURCES AGENCY (MCWRA)

AGENTS: Joe Madruga, MCWRA; Steven Maki, County Planning

PROJECT LOCATION: Moro Cojo Slough, North Monterey County

ORIGINAL PROJECT DESCRIPTION: Replace three existing 48-inch tidegates and culverts, install  
headwall, riprap and grading.

ORIGINAL PROJECT APPROVAL: 2/7/89 Approval With Conditions

CONDITION REQUIRING COMPLIANCE: Special Condition #7 requires submittal of a comprehensive  
wetland management plan for Moro Cojo Slough.

LOCAL APPROVAL OF MANAGEMENT PLAN: Monterey County Board of Supervisors, 10/22/96

SUBSTANTIVE FILE DOCUMENTS: *Moro Cojo Slough Management and Enhancement Plan*, Final  
Report and Technical Appendices, Habitat Restoration Group, October  
1996; CEQA Negative Declaration April 1996; *North [Monterey] County  
Land Use Plan*, June 1982.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends that the Commission approve the *Moro Cojo Slough Management and Enhancement Plan* as submitted as (1) fulfilling the requirements of condition #7 of coastal permit #3-89-4 and (2) as being a positive project, funded by the Coastal Conservancy, that furthers Coastal Act policy objectives of wetland protection and restoration, non-point source pollution control, agricultural preservation, flood control, and public access enhancement. Moro Cojo Slough is one of the last major Central Coast wetlands that had lacked a management

plan. Future projects emanating from this *Plan* will require their own environmental and permit review. Because these future projects are based on voluntary landowner cooperation and grants to be obtained by interested agencies, the Commission's main recommendation to the Coastal Conservancy is to continue to ensure that *Plan* implementation occurs (see Finding G).

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**PROCEDURAL NOTE: CONSERVANCY PROJECT REVIEW:**

In addition to this item being one of condition compliance, the California State Coastal Conservancy submitted the *Moro Cojo Slough Management and Enhancement Plan* to the Commission on May 16, 1997 for its review and approval as required by Section 31258 of the Coastal Conservancy Act of 1976. Under Section 31258, following completion of a coastal resource enhancement plan, the Conservancy forwards the plan to the Commission for determination of plan conformity with the policies and objectives of the Coastal Act. The Commission reviews a Conservancy Enhancement Plan when it affects lands over which the Commission retains jurisdiction under Section 30519(b) of the Coastal Act, which includes (potential) public trust lands. In this case, the Coastal Commission retains jurisdiction over portions of Moro Cojo Slough. Section 31258 provides that the Commission has 60 days to review the plan and transmit its findings to the Conservancy. If no findings are made prior to July 16, 1997, the Enhancement Plan is deemed to be approved and consistent with the Coastal Act.

Under the Coastal Act and the Coastal Conservancy Act, the Commission's task is to conduct a conceptual review of the Enhancement Plan and indicate to the Conservancy what provisions, if any, must be included in a final project or plan to find it consistent with the Coastal Act. The submitted Enhancement Plan is not an application for a coastal development permit, and prior to the Conservancy implementing the Enhancement Plan, a coastal development permit for any projects emanating from that Plan must be reviewed and approved by the Coastal Commission or its successor public agency.

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### TABLE OF CONTENTS

I. STAFF RECOMMENDATION: APPROVAL RESOLUTIONS.....	4
II. FINDINGS AND DECLARATIONS.....	4
A. BRIEF SUMMARY OF <i>PLAN</i> CONTENTS.....	4
B. BACKGROUND OF CONDITIONAL REQUIREMENT.....	5
1. Imposition of Condition #7 of Coastal Development Permit #3-89-4.....	5
2. Interim Operation of Approved Tide Gates.....	6
3. Preparation of Required Management Plan.....	6
C. PROCEDURAL COMPLIANCE WITH PERMIT CONDITIONS.....	6
D. SUBSTANTIVE COMPLIANCE WITH PERMIT CONDITIONS.....	7
E. CONSISTENCY WITH COASTAL ACT.....	8
1. Resource Protection and Enhancement.....	8
2. Agriculture.....	9
3. Flood Control.....	10
4. Public Access.....	11
F. CONSISTENCY WITH LOCAL COASTAL PROGRAM.....	12
G. <i>PLAN</i> IMPLEMENTATION.....	12
1. Regulatory Requirements.....	13
2. Phasing/Priorities/Feedback.....	13
3. Responsibilities.....	13
H. CEQA (CALIFORNIA ENVIRONMENTAL QUALITY ACT).....	14
I. APPROVAL IN CONCEPT FOR CONSERVANCY ENHANCEMENT PLAN.....	14

**EXHIBITS:**

1. *Moro Cojo Slough Management and Enhancement Plan*, excerpts
2. Original permit, 3-89-4, as amended

NOTE: Complete copy of the Management Plan is on file at the Coastal Commission's Santa Cruz office.

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## STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolutions:

### I. Approval

The Commission hereby **approves** the *Moro Cojo Slough Management and Enhancement Plan*, as submitted, as being in compliance with condition #7 of Coastal Development Permit 3-89-4, as amended, and

The Commission hereby **grants** its approval in concept of the *Moro Cojo Slough Management and Enhancement Plan*, finding that the *Plan* is in conformity with the provisions of Chapter 3 of the California Coastal Act, and recommends that the Coastal Conservancy ensure its implementation based on the following findings:

### II. Findings and Declarations.

The Commission hereby finds and declares:

#### A. BRIEF SUMMARY OF PLAN CONTENTS

Moro Cojo Slough is a major Central Coast wetland within a 17 square mile watershed, located just south of Elkhorn Slough proper. It is part of the Elkhorn Slough estuarine complex in North Monterey County. As described more fully in the *Moro Cojo Slough Management and Enhancement Plan*, the Slough environs host:

amphibian migration corridors, potential amphibian breeding sites, potential nesting/foraging habitat for hawks and warblers, egret foraging/roost area, black-shouldered kite roosting area, shorebird and waterfowl nesting and foraging habitat, potential tricolored blackbird nesting habitat, potential amphibian upland habitat and known occurrences of rare and endangered species (Santa Cruz Long-toed Salamander..., California red-legged frog).

Nevertheless, over time, levees, drainage ditches, pumps, grazing and field crop encroachments, the subject tidegates, and other human interventions have altered the natural hydrologic and biotic systems. Thus, the necessity for an enhancement plan.

Major components of the *Moro Cojo Slough Management and Enhancement Plan* include:  
(see Exhibit 1)

- maintain existing operation of tide gate at Moss Landing Road;
- conduct pilot projects on public or non-profit agency-owned lands;
- implement subsequent projects through willing landowners;
- construct freshwater impoundments below 10 foot contour west of SPRR;
- create buffers between agricultural lands and Moro Cojo Slough;
- install flashboard dam to impound water at SPRR track overcrossing;
- install dam at confluence of Castroville and Moro Cojo Sloughs to limit tidal movement;

- preserve brackishwater character of main part of Moro Cojo Slough;
- provide flood protection for agricultural lands with levees, berms, or pumps;
- restore Castroville Slough to its 1977 dimensions;
- convert alkali grassland to freshwater plant species west of SPRR.

## B. BACKGROUND OF CONDITIONAL REQUIREMENT

### 1. Imposition of Condition #7 of Coastal Development Permit #3-89-4

In February 1989 the Coastal Commission issued a permit to the Monterey County Department of Public Works to replace three existing 48-inch tidegates and culverts, grade, and install a headwall and riprap on Moro Cojo Slough where it flows under Moss Landing Road (see Exhibit 2). On March 19, 1993 the permit was amended to extend the time limits for condition compliance (which had only been six months). Special Condition #7 of CDP 3-89-4, as amended, states in part:

7. On or before September 30, 1994, in accord with the amendment time schedule (see Exhibit A), the permittee shall submit a comprehensive wetland management plan for Moro Cojo Slough for the Coastal Commission's review and approval. The plan shall be prepared by a qualified biologist/hydrologist. The plan shall determine the effectiveness of the project and identify necessary maintenance measures. The plan shall be based on the material within and the recommendations of the "Biological Assessment of Wetland Environments Impacted by Culvert Repairs at the Mouth of Moro Cojo Slough" by ABA Consultants, November 28, 1988, see exhibit C. A post-project monitoring phase of the plan shall include measurements of salinity and tide height as well as biological observations, and measures for enhancement and restoration of the wetland. The plan shall also contain recommendations regarding adjustments to the tidegates. The final setting shall provide for a range of salinity at the slough mouth depending largely on variations in freshwater inflow as recommended in the project's "Biological Assessment." The plan shall receive prior review and approval by Monterey County Planning Department and any other applicable state and federal agencies.

This condition was imposed because:

The [previous] tidegates were installed to drain the slough of freshwater and prevent tidal flow up slough. However, they have leaked significant quantities of saltwater in the slough since their initial installation according to the Biological Assessment. The Biological Assessment states, "the short and long-term solution to the management of water drainage from Moro Cojo must be developed in a sound wetland management plan." (finding # 2 excerpt)

The new tidegates could completely eliminate salt water flow in the Slough. Conversely, they could be operated to allow more salt water in to mix with the fresh water. Their installation and operation could also affect the quantity of water in the Slough. Thus, in order to know how they should be operated and maintained, it is necessary to first come to an agreement as to the management goal for Moro Cojo Slough, (i.e., what should be its optimal condition). This requires development of a comprehensive management plan that catalogs all potential uses (e.g., flood control, agriculture, habitat) and derives recommendations that would be acceptable to the various resource agencies based on their statutory responsibilities. Preparation of a comprehensive management plan was also a requirement of *North Monterey County Land Use Plan* (see Finding F below).

## 2. Interim Operation of Approved Tide Gates

Because a management plan would take some time to prepare, and the existing tidegates were no longer functional, the permit authorized interim operation of the new tide gates under certain conditions. The tide gates were installed in early 1989. The project included a 12 inch by 20 inch slide gate to allow limited tidal to flow into Moro Cojo Slough. Further modifications are possible were it found desirable to allow more salt water into the Slough.

As cited, Condition #7 required post-project monitoring of salinity and tide height as well as biological observations. In 1993 the permit condition was amended to specifically require annual monitoring reports for the Moro Cojo Slough tidegates until completion of the Management Plan:

The annual report shall continue to determine project effectiveness, identify maintenance measures, include an operation schedule for implementation of recommended maintenance measures, implement recommendations included in the previous annual monitoring report(s), and continue post-project monitoring criteria as set-forth ..."

Annual monitoring reports showed that the resultant water levels were generally satisfactory and that, with routine maintenance, the tidegates were functioning properly.

## 3. Preparation of Required Management Plan

Meanwhile, management plan preparation was an extensive process. It began with preparing grant requests and ultimately receiving funding from the California Coastal Conservancy in June 1992. Following this guarantee of funding, a request for proposals was prepared in August 1992 and a contract with work program was signed with the selected consultants in March 1993. Documents subsequently prepared included an Existing Conditions report (March 1994), a response to comments on the Existing Conditions report (June 1994), a Resource Enhancement alternatives report (June 1994), and draft final *Management Plan* (December 1994). Two years later public hearings, culminating in favorable votes, were held by the North County Advisory Committee, the Monterey County Planning Commission, and the Board of Supervisors. After *Plan* adoption on October 22, 1996, the various revisions were incorporated into a final printing, which was completed in late April 1997.

## C. PROCEDURAL COMPLIANCE WITH PERMIT CONDITIONS

Preparation of the *Moro Cojo Slough Management and Enhancement Plan* met the procedural requirements of Condition #7 with the exception of the time limits. The report was prepared by a qualified biological firm (The Habitat Restoration Group) in conjunction with a qualified hydrological firm (Mitchell Swanson and Associates). The report was guided by a technical advisory committee: Elkhorn Slough's RAC (Research Advisory Council) which included representatives of the State Department of Fish and Game and U.S. Fish and Wildlife Service. Monterey County Planning Department provided the staff support.

Although the consultant's work program followed the time lines submitted as part of the permit amendment, final report completion did not meet the revised September 30, 1994, deadline. A draft

plan was released soon after the deadline, but it took another year and one-half to bring a final plan to the decision-making bodies for approval. An additional time extension for condition compliance was not sought. However, good faith progress was made in the planning process, there were no deliberate delays, and no interim adverse resource impacts are known to have occurred as a result of the schedule lapses. Therefore, this timing problem does not deter the Commission from approving the *Management Plan*.

#### D. SUBSTANTIVE COMPLIANCE WITH PERMIT CONDITIONS

The *Plan* basically finds that the culvert system installed pursuant to permit #3-89-4 works well, does not harm the environment, and needs no further special adjustment nor maintenance. The *Plan* notes that "very little inflow [into Moro Cojo Slough] occurs because of the highly effective tide gates at Moss Landing Road." (page 4-4) An accompanying Figure 4-3 shows recent tidal monitoring results recorded above and below the tide gates. Inland of the gates water levels are around -2 feet MSL. Seaward they range upward to 4 feet MSL. The *Plan* goes on to note that:

[if the tidegates] were not present, seawater would likely reach areas near Castroville Boulevard [three miles inland]. Present management of the tide gates by MCWRA allow tidal inflow up to -2 feet MSL in elevation...[The tidegates] ha[ve] virtually eliminated seawater exchange and tidal inundation. The dam contains a set of four 48-inch diameter culverts, each fitted with a flap gate to prevent tidal seepage; one flap gate has a small 12-inch by 20-inch slide gate that allows minor tidal inflows. The MCWRA manages tidal levels in the slough between -2.0 and -1.5 feet MSL to prevent flooding of residential and agricultural lands.

In developing the *Plan*, the consultants offered various scenarios to enhance resources within the lower watershed of Moro Cojo Slough, such as Alternative A Tidal Regime and Alternative B Partially Tidal Regime. The RAC evaluated each alternative based on a series of criteria which included maintaining known habitat for rare and endangered species (see page 10-1). Based on the criteria, the RAC selected Alternative D, Winter/Spring Freshwater Conditions as the preferred plan. "The preferred plan does not modify the existing tidal environment below the SPRR [railroad]. The tide gates at Moss Landing Road will be retained and operated in the same manner as the existing operation." (page 10-3). The *Plan* proposes installation of a flashboard dam at SPRR to restrict tidal movement and to allow upstream impoundment of freshwater during the winter and spring. Other freshwater impoundments would also be created (see Figure 11-1 of Exhibit 1)

The *Plan* is fairly comprehensive for a wetland management plan, as condition #7 requires. It covers hydrology, biologic resources, buffers, public access and recreation among other topics. In fact, in the Commission's *Regional Cumulative Impact Assessment Project (ReCAP)*, it ranked high among wetland management plans in terms of topics covered. Out of eleven topics Central Coast deemed important to be in wetland plan, eight are adequately covered (the average number of topics covered for all wetland plans reviewed was 5.5).

The main deficiency in the *Plan* is the lack of a stated implementation commitment, which is discussed in Finding G below. A related omission is a discussion of interagency coordination provisions. In this case, it can be assumed that the Water Resources Agency will continue to operate and maintain the tidegates. But the *Plan* mentions numerous other agencies as having possible implementation roles.

Also, the Plan is not a watershed management plan. Although it suggests Best Management Practices to protect water quality throughout the watershed and presents mapped information on a watershed basis, it does not contain the detail expected of a comprehensive watershed management plan, especially for the upper watershed. However, it does provide the basis for such a future planning process, and opportunities will likely exist for one to occur in the coming years.

## E. CONSISTENCY WITH COASTAL ACT

### 1. Resource Protection and Enhancement

The following Coastal Act sections are relevant:

**Section 30001.5:** The Legislature further finds and declares that the basic goals of the state for the coastal zone are to:

(a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.

**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.

**Section 30233:** (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.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(c) In addition to the other provisions of this section, diking, filling or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary.

**Section 30240:** (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.



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

*The Moro Cojo Slough Management and Enhancement Plan* contains a number of objectives that will further these and related Coastal Act and *North County Land Use Plan* policies (see Exhibit 1). Basically, the *Management Plan* calls for the restoration and enhancement of degraded wetland areas. In addition, it calls for expanding wetland areas. For example, impoundments are proposed that will result in additional freshwater wetland area available for waterfowl nesting and foraging. Finally, it contains numerous provisions, such as erosion control measures, designed to prevent adverse impacts on the wetlands from development within the entire Moro Cojo Slough watershed.

Implementation of the *Plan* will involve work in and adjacent to wetlands. This work should be consistent with Section 30233a(7), because it will be for restoration purposes. Additionally, it is planned to be the least environmentally damaging alternative, using "eco-engineering," i.e., low-impact construction measures. Nevertheless, detailed plans for individual projects will have to be analyzed for consistency with the above-cited Coastal Act and related *Land Use Plan* policies. It is possible that mitigation measures will be imposed, including pre-construction surveys, on-site biological observation, and post-construction monitoring. The *Management Plan* explicitly recognizes the need for future permit and environmental analysis and the possible modification of the conceptual recommendations, especially with regard to endangered species protection. Thus, the *Plan* is conceptually consistent with the above-cited resource protection policies.

## 2. Agriculture

The following excerpts from the Coastal Act are applicable:

**Section 30241.** *The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:...*

**Section 30007.5.** *The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources...*

**Section 30200(b)** *Where the commission or any local government in implementing the provisions of this division identifies a conflict between the policies of this chapter, Section 30007.5 shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts.*

Full implementation of the *Plan* could result in the loss of up to 135 acres of land designated for and in agricultural production, such as strawberry fields. Additional acreage in production or used for grazing, but designated for "Resource Conservation," not "Agricultural Preservation" may also be converted back to wetlands or wetland buffer. Both agricultural lands and riparian wetlands are

considered significant coastal resources under the Coastal Act. In this particular case, the area has gradually been converted from wetland and adjacent upland native habitat to agricultural use, generally without regard to resource protection (e.g., buffering, controlling runoff on-site, slope stability, etc.). Implementation of the proposed plan will bring the area more into balance; agriculture will still be a predominant use of the watershed, but some natural areas will be expanded and enhanced. The *Plan* calls for measures that will reduce direct and indirect adverse impacts from agriculture (e.g., grazing destroying wetland vegetation, pesticides running off into Slough). In this case, implementation of the wetland restoration project is most protective of coastal resources, and can be distinguished from other agricultural conversion situations, because:

- the area in question historically comprised riparian and wetland habitat;
- a higher percentage of coastal wetlands have historically been lost than coastal agricultural lands (agricultural expansion in North Monterey County is a recent occurrence);
- the project will expand the existing Moro Cojo Slough wetland ecosystem, a component of the Elkhorn Slough estuarian system (one of the most important wetland systems in the State).

In conclusion, although the *Enhancement Plan* provisions do not meet the intent of Section 30241 because the acreage in agricultural use will be moderately reduced, the *Plan* can be conceptually approved, pursuant to the cited balancing provisions of the Coastal Act because it will facilitate the protection and enhancement of an important coastal wetland. In this case, the benefits for the wetland outweigh the reduction in agricultural acreage, and therefore in terms of Coastal Act Section 30007.5 is the most protective of significant coastal resources.

### 3. Flood Control

The following excerpts of Coastal Act provisions are relevant

**Section 30253 (1)** Minimize risks to life and property in areas of high geologic, flood, and fire hazard

**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 flood plain 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 Moro Cojo Slough Management and Enhancement Plan* incorporates flood control into its objectives. The original tide gate project which presaged the *Management Plan* was primarily a flood control project. It was designed to prevent flooding of adjacent properties both by keeping excessive tidal flows from entering the Slough and by allowing excessive water that had entered the Slough due to precipitation to leave. As noted above, the *Plan* maintains the original flood control components. However, the *Plan* also includes programs which will increase the amount of flooded area. These programs will be further planned with the consent of the property owner. Thus, the *Plan* presents no additional flood hazard threat, as easements or other measures will be in place before any additional land is flooded. Additionally, the *Plan* calls for new levees, berms, or pump stations as needed to provide tidal and flood protection for agricultural land west of SPRR (page 10-12). Again, the exact

hydrologic details of what will occur when the *Plan* is implemented will be decided in the future. Therefore, pending the review of specific future projects, the *Plan* is conceptually consistent with the above-cited flood policies.

#### 4. Public Access

The following excerpts from the Coastal Act are applicable:

**Section 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.*

**Section 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.*

(c) *Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.*

**Section 30214.** a) *The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access ...*

(c) *In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.*

The *Plan* contains some public access and education provisions. Included are proposed trails (page 11-6, figures 9-1 & 11-1). A broad, watershed-wide education program is also envisioned. Detailed access and education proposals are to be developed. At this time, the *Plan* is conceptually consistent with the Coastal Act access policies and will help carry them out.

#### F. CONSISTENCY WITH LOCAL COASTAL PROGRAM

The *North County Land Use Plan* segment of the Monterey County Local Coastal Program, certified by the Coastal Commission in June, 1982, provides for protection of the plant and wildlife values of all wetland areas, for development of a comprehensive natural resource and water basin management plan for North County, and for wetland management plans for the sloughs and estuarine areas. The *Moro Cojo Slough Management and Enhancement Plan* thus complies with part of Recommended Action 2.3.4.2 of the *Land Use Plan*, which calls for the preparation of such a comprehensive plan for the entire Elkhorn Slough complex, of which Moro Cojo is a significant component.

The *North [Monterey] County Land Use Plan*, designates the immediate Moro Cojo Slough area as "Resource Conservation, Wetlands and Coastal Strand." The *Land Use Plan* (p. 69) describes this land use category as follows:

Protection of sensitive resources, plant communities, and animal habitats is emphasized. This land use is applied to wetlands, dunes, and riparian corridors under the Wetlands and Coastal Strand Category, and to sensitive forest and upland habitats... Only very low intensity uses and supporting facilities compatible with protection of the resource are allowed. Uses would include low intensity recreation, education, and research, and where no feasible alternative exists, essential public utility lines outside of Elkhorn Slough... In appropriate wetland areas, aquaculture would also be encouraged. Agricultural uses which would destroy or disrupt the habitat area not allowed.

The *Management Plan* does not more precisely define what uses should or should not occur within the immediate "Resource Conservation" area; this general *Land Use Plan* category will still govern. Some areas beyond the immediate Slough affected by the *Management Plan* are designated "Agricultural Preservation" as noted above. Given the various *Land Use Plan* policies supportive of wetland restoration, removing these areas from agricultural production would be acceptable. Nevertheless, the County may eventually seek to amend the *Land Use Plan* map to reflect changes resulting from implementing this *Management Plan*.

Portions of Moro Cojo Slough remain under the Coastal Commission's direct ("original") permit jurisdiction. But the majority of the area subject to the *Moro Cojo Slough Management and Enhancement Plan* falls within the coastal permit jurisdiction delegated to Monterey County. There are many specific policies in the *Land Use Plan* derived from the Coastal Act policies cited above that will govern specific permit applications that may emanate from implementing the *Enhancement Plan*. At this time no major inconsistencies are apparent between the *Enhancement Plan* and the *Land Use Plan*. The *Enhancement Plan* contains flexible language which will allow individual projects to be modified to meet *Land Use Plan* standards.

#### G. PLAN IMPLEMENTATION

Implementation mechanisms are spelled out to varying degrees in the *Plan* text. The *Plan* addresses future regulatory requirements, phasing/priorities, costs, feedback, possible agency involvement. The *Plan* does not explicitly describe how implementation will be assured.

### 1. Regulatory Requirements

The *Plan* notes that implementation "will also require several permits from regulatory agencies.. (Page 10-3). The *Plan* is conceptual. Detailed drawings of proposed projects are not included. Therefore, although the second paragraph of condition #7 of coastal permit #3-89-4 requires that all *plan* recommendations be implemented in a timely manner, this condition sign-off of the *Plan* does not constitute authorization to proceed with any *Plan* component that is defined as "development." Such future projects will require coastal development permits from Monterey County or the Coastal Commission (depending on project location).

### 2. Phasing/Priorities/ Feedback

The *Plan* divides recommended projects among four phases:

- I. Education and Enforcement through Existing Programs (Year 1 and on-going)
- II. Establish Buffers between Wetlands and Other Lands with Willing Landowners
- III. Ecological Engineering
- IV. Design and Implement Structural Engineering Actions.

Phases II through IV "may be modified after the implementation and evaluation of a pilot project in Phase I. Phase I "provide[s] for pilot projects on public, and/or non-profit agency owned lands in Years 1 through 10 to test the effectiveness of the management actions and to evaluate any impacts they may have on adjacent agricultural activities; thereby offering modifications to correct any deficiencies to remaining management actions through the remaining phases." (page 10-2).

### 3 Responsibilities

The *Plan* includes cost estimates for various components and suggests possible funding sources. However, the *Plan* text does not indicate how implementation will be ensured. It does not state a commitment of particular personnel (e.g., staff project manager, task force) to attempt to gain landowner cooperation (as most recommendations are voluntary), obtain funding (as most recommended components will require a source of funding), and generally keep the projects on track. This is envisioned by *Land Use Plan* Recommended Action #2.3.4.2 which states, "...Once the plan is completed, management responsibility for the wetland areas should be assigned to an agency with adequate technical and supervisory staff to implement the plan." This specific assignment did not occur in concert with the Board of Supervisors' action approving the *Plan*.

Nevertheless, under condition #7 the County will be required to report to the Commission over the next five years as to implementation. A letter from the County Planning Director (Slimmon to Strnad, Otter, & Hyman 9/30/96) indicates that the Board action in approving the *Plan* is indicative of continued support of various public and non-profit agencies to secure grant funding to implement the *Plan*. The *Plan* provides a framework for future funding applications. County Planning staff has continued to be involved in *Plan* implementation.

The Coastal Conservancy already has some funding available to implement some *Plan* components and has taken the lead to ensure that implementation does occur. An informal task force has been meeting periodically for this purpose. Some other agencies (e.g., Natural Resources Conservation Service, Elkhorn Slough Foundation) are already exploring ways to

implement some *Plan* recommendations. The Coastal Commission recommends that final adoption of the *Moro Cojo Slough Management and Enhancement Plan* by the Coastal Conservancy be accompanied by a commitment to ensure that the *Plan* will be implemented.

#### H. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Negative Declaration was adopted by the Monterey County Board of Supervisors concurrent with the adoption of the *Moro Cojo Slough Management and Enhancement Plan*. The Coastal Commission concurs in its adoption and associated findings of no significant environmental impact. The Coastal Conservancy will also make a CEQA finding when it approves the *Plan*. Additional CEQA review will be necessary for implementation of some of the recommendations.

#### I. APPROVAL IN CONCEPT FOR CONSERVANCY ENHANCEMENT PLAN

In conclusion, with regard to the upcoming Coastal Conservancy action, the Coastal Commission grants its approval in concept to the *Moro Cojo Slough Management and Enhancement Plan*. This conceptual approval is granted with the recommendation to continue to ensure that the *Plan* is implemented. The project proponent (be it the Coastal Conservancy, Monterey County, or another entity) must apply for and receive a coastal development permit from the Commission and/or Monterey County before implementing the *Enhancement Plan* or portion(s) thereof. At that time, the permit applicant(s) will need to demonstrate that the *Enhancement Plan* is fully consistent with the Chapter 3 policies of the Coastal Act and (with respect to the County's coastal permit jurisdiction) the relevant *North County Land Use Plan* provisions.

**Table 10-1. Summary of Lower Watershed Preferred Alternative Plan Actions, Moro Cojo Slough Management and Enhancement Plan, By Phase**

Action	Phase
<b>PHASE I</b>	
<b>Hydrologic Actions</b>	
H-4. Maintain existing operation of tide gate at Moss Landing Road (Sandholdt Dam) to allow for tidal action and storms. (Addresses RAC criteria 1, 2 and 3; Plan Objectives B-2, B-5, W-4 and A-2.)	I
<b>Agricultural Actions</b>	
<p>A-4. Through willing landowners, obtain conservation easement, purchase or land exchange to restore Castroville Slough to its 1977 dimensions. Investigate various designs, such as a lowered berm on one bank, to allow wetland restoration, compatible with adjacent agricultural land use and water quality protection. (Addresses RAC criteria 5; Plan Objectives B-2, B-5, B-7, W-2, A-5, P-2 and P-3.)</p> <p>Conduct pilot projects on public and/or non-profit agency-owned lands to test effectiveness of the management actions and to evaluate any impacts they may have on adjacent agricultural activities; thereby offering modifications to correct any deficiencies to remaining management actions through the remaining phases.</p>	I
<b>Biotic Resource Actions</b>	
B-4. Begin to restore wetland habitat along Castroville Slough to 1977 dimensions. (See A-4, above.)	I
<b>PHASE II</b>	
<b>Land Use Actions</b>	
L-1. Through voluntary landowner involvement, obtain conservation easements, purchase or land exchange for pasture and/or agricultural lands below the 10-foot contour between SPRR and Castroville Boulevard to provide buffer between agricultural lands and wetlands. (Addresses RAC criteria 10; Plan Objectives B-6 and A-5.)	II
<b>Agricultural Actions</b>	
A-2. Through willing landowners, obtain conservation easement, purchase or land exchanges for the conversion of marginal agricultural land adjacent to the slough between SPRR and Castroville Boulevard to wetland/agricultural buffer area. (Addresses RAC criteria 5 and 6; Plan Objectives B-5, B-7, B-8, W-2, W-3, A-5, L-1 and P-2.)	II

**Table 10-1. Summary of Lower Watershed Preferred Alternative Plan Actions, Moro Cojo Slough Management and Enhancement Plan (Cont'd.)**

Action	Phase
<b>Hydrologic Actions</b>	
H-1. Replace Highway 1 crossing with a spanning bridge to allow additional flows; maintain grade control structure. (Addresses RAC criteria 1 and 3; Plan Objectives W-2.)	IV
H-2. Modify the SPRR track overcrossing to accommodate additional flows, and install flashboard dam to impound water. (Addresses RAC criteria 2, 5 and 6; Plan Objectives G-1, B-1, B-5, W-4, W-5, W-6 and A-2.)	IV
H-3. Install "eco-dam" or a flashboard dam at the confluence of Castroville Slough and Moro Cojo Slough to limit/control tidal movement in Castroville Slough and control releases of freshwater into Moro Cojo Slough. (Addresses RAC criteria 1, 2 and 8; Plan Objectives G-1, B-1, B-5, W-4, W-5, W-6 and A-2.)	IV (flashboard dam)
H-5. Develop sediment management plan for pollutants. (Addresses Plan Objectives W-2 and W-3.)	IV
H-6. Install barriers (e.g., eco-engineered hay bales or flashboard dams) between freshwater impoundments and main slough channel to create impoundments. Preserve brackishwater character of main slough. (Addresses RAC criteria 2, 3, 5 and 6; Plan Objectives G-1, B-1, B-5, W-6 and A-2.)	IV
<b>Flood Control Actions</b>	
F-1. Provide tidal/flood water protection for agricultural lands west of SPRR through construction of levees, berms, pump systems, as needed. (Addresses Plan Objectives W-4, W-7, A-2, A-5 and P-2.)	IV
F-2. Provide protection of private property/structures in Moss Landing from flood water inundation (7 parcels). (Addresses Plan Objective A-5.)	IV
<b>Agricultural Actions</b>	
A-1. Through willing landowners, obtain conservation easement, purchase or land exchange for the conversion of existing pasture and/or agricultural lands west of SPRR to managed wetland habitat (i.e., remove or limit cattle activities). (Addresses RAC criteria 5 and 6; Plan Objectives B-5, B-7, B-8, W-2, W-3, A-5, L-1 and P-2.)	IV

**EXHIBIT 1 cont**



**Table 10-1. Summary of Lower Watershed Preferred Alternative Plan Actions, Moro Cojo Slough Management and Enhancement Plan (Cont'd.)**

Action	Phase
A-3. Through willing landowners, obtain conservation easement, purchase or land exchange to minimize potential conflicts between agricultural land practices and habitat protection by constructing grass-lined swales, sediment control structures, and perimeter ditches. (Addresses RAC criteria 8, 9 and 10; Plan Objectives G-2, B-5, W-1, W-2, W-3, W-7, A-3, A-4, P-2 and P-3.)	IV
A-4. Through willing landowners, obtain conservation easement, purchase or land exchange to restore Castroville Slough to its 1977 dimensions. Investigate various designs, such as a lowered berm on one bank, to allow wetland restoration, compatible with adjacent agricultural land use and water quality protection. (Addresses RAC criteria 5; Plan Objectives B-2, B-5, B-7, W-2, A-5, P-2 and P-3.)	IV
<b>Surface Water Actions</b>	
S-2. Impound available freshwater in impoundments during spring and summer. (Addresses RAC criteria 5 and 6; Plan Objectives G-1, B-1, B-5, W-4, W-5 and A-2.)	IV
<b>Biotic Resource Actions</b>	
B-1. Gradually convert alkali grassland to freshwater plant species west of SPRR. (Addresses RAC criteria 5 and 7; Plan Objective G-1.)	IV
B-2. Allow natural conversion of brackishwater marsh areas east of SPRR to a more freshwater plant association. (Addresses RAC criteria 5 and 7; Plan Objective G-1.)	IV
B-3. Protect existing wetlands and riparian habitat through creation of wetland/agricultural buffers. (Addresses RAC criteria 10; Plan Objectives B-6 and A-5.)	IV
B-4. Restore wetland habitat along Castroville Slough to 1977 dimensions. (See A-4, above.)	IV
B-5. Potential change in species composition and abundance of mosquito populations. (Addresses RAC criteria 5; Plan Objective W-6.)	IV
B-6. Provide island along main slough to facilitate waterfowl breeding. (Addresses Plan Objective B-4.)	IV
B-7. Create freshwater impoundment areas for waterfowl habitat. (Addresses RAC criteria 2, 5 and 6; Plan Objectives B-1 and B-5.)	IV

**Table 10-1. Summary of Lower Watershed Preferred Alternative Plan Actions, Moro Cojo Slough Management and Enhancement Plan (Cont'd.)**

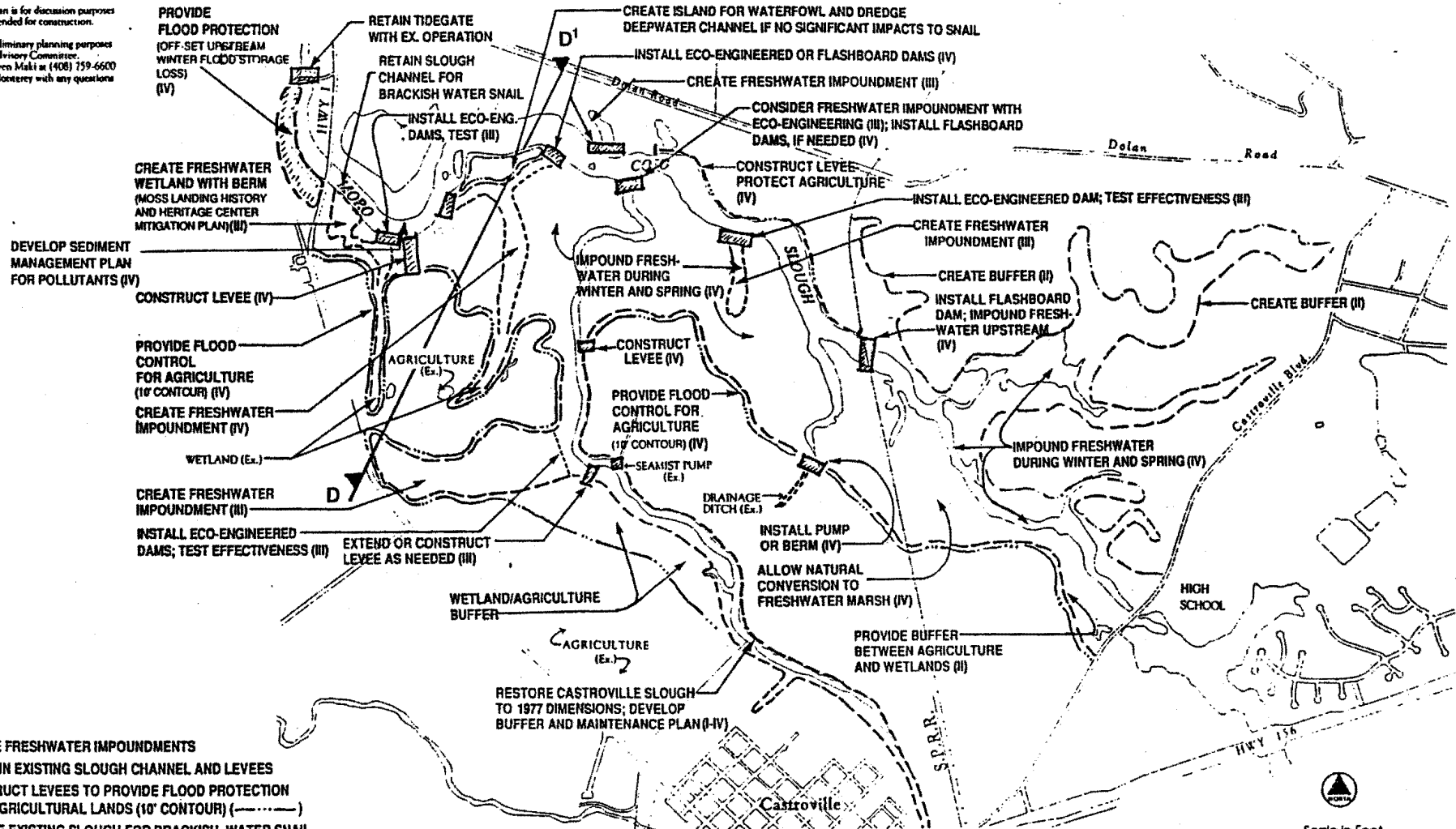
Action	Phase
<b>Agricultural Actions</b>	
A-3. Through willing landowners, obtain conservation easement, purchase or land exchange to minimize potential conflicts between agricultural land practices and habitat protection by constructing grass-lined swales, sediment control structures, and perimeter ditches. (Addresses RAC criteria 8, 9 and 10; Plan Objectives G-2, B-5, W-1, W-2, W-3, W-7, A-3, A-4, P-2 and P-3.)	III
A-4. Through willing landowners, obtain conservation easement, purchase or land exchange to restore Castroville Slough to its 1977 dimensions. Investigate various designs, such as a lowered berm on one bank, to allow wetland restoration, compatible with adjacent agricultural land use and water quality protection. (Addresses RAC criteria 5; Plan Objectives B-2, B-5, B-7, W-2, A-5, P-2 and P-3.)	III
<b>Surface Water Actions</b>	
S-2. Impound available freshwater in impoundments during spring and summer. (Addresses RAC criteria 5 and 6; Plan Objectives G-1, B-1, B-5, W-4, W-5 and A-2.)	III
<b>Biotic Resource Actions</b>	
B-1. Gradually convert alkali grassland to freshwater plant species west of SPRR. (Addresses RAC criteria 5 and 7; Plan Objective G-1.)	III
B-3. Protect existing wetlands and riparian habitat through creation of wetland/agricultural buffers. (Addresses RAC criteria 10; Plan Objectives B-6 and A-5.)	III
B-4. Restore wetland habitat along Castroville Slough to 1977 dimensions. (See A-4, above.)	III
B-5. Potential change in species composition and abundance of mosquito populations. (Addresses RAC criteria 5; Plan Objective W-6.)	III
B-7. Create freshwater impoundment areas for waterfowl habitat. (Addresses RAC criteria 2, 5 and 6; Plan Objectives B-1 and B-5.)	III
<b>PHASE IV</b>	
<b>Land Use Actions</b>	
L-2. Through voluntary landowner involvement, obtain conservation easements, purchase or land exchange for pasture and/or agricultural lands below 10-foot contour west of SPRR for construction of freshwater impoundments. (Addresses RAC criteria 5 and 6; Plan Objectives G-1 and B-1.)	IV

**Table 10-1. Summary of Lower Watershed Preferred Alternative Plan Actions, Moro Cojo Slough Management and Enhancement Plan (Cont'd.)**

Action	Phase
A-3. Through willing landowners, obtain conservation easement, purchase or land exchange to minimize potential conflicts between agricultural land practices and habitat protection by constructing grass-lined swales, sediment control structures, and perimeter ditches. (Addresses RAC criteria 8, 9 and 10; Plan Objectives G-2, B-5, W-1, W-2, W-3, W-7, A-3, A-4, P-2 and P-3.)	II
A-4. Through willing landowners, obtain conservation easement, purchase or land exchange to restore Castroville Slough to its 1977 dimensions. Investigate various designs, such as a lowered berm on one bank, to allow wetland restoration, compatible with adjacent agricultural land use and water quality protection. (Addresses RAC criteria 5; Plan Objectives B-2, B-5, B-7, W-2, A-5, P-2 and P-3.)	II
<b>Biotic Resource Actions</b>	
B-3. Protect existing wetlands and riparian habitat through creation of wetland/agricultural buffers. (Addresses RAC criteria 10; Plan Objectives B-6 and A-5.)	II
B-4. Continue to restore wetland habitat along Castroville Slough to 1977 dimensions. (See A-4, above.)	II
<b>PHASE III</b>	
<b>Hydrologic Actions</b>	
H-3. Install "eco-dam" or a flashboard dam at the confluence of Castroville Slough and Moro Cojo Slough to limit/control tidal movement in Castroville Slough and control releases of freshwater into Moro Cojo Slough. (Addresses RAC criteria 1, 2 and 8; Plan Objectives G-1, B-1, B-5, W-4, W-5, W-6 and A-2.)	III (eco dam)
H-6. Install barriers (e.g., eco-engineered hay bales or flashboard dams) between freshwater impoundments and main slough channel to create impoundments. Preserve brackishwater character of main slough. (Addresses RAC criteria 2, 3, 5 and 6; Plan Objectives G-1, B-1, B-5, W-6 and A-2.)	III
<b>Flood Control Action</b>	
F-1. Provide tidal/flood water protection for agricultural lands west of SPRR through construction of levees, berms, pump systems, as needed. (Addresses Plan Objectives W-4, W-7, A-2, A-5 and P-2.)	III

This conceptual plan is for discussion purposes only and is not intended for construction.

This plan is for preliminary planning purposes by the Research Advisory Committee. Please contact Steven Maki at (408) 759-6600 at the County of Monterey with any questions and comments.



- CREATE FRESHWATER IMPOUNDMENTS
- MAINTAIN EXISTING SLOUGH CHANNEL AND LEVEES
- CONSTRUCT LEVEES TO PROVIDE FLOOD PROTECTION FOR AGRICULTURAL LANDS (10' CONTOUR) (-----)
- MANAGE EXISTING SLOUGH FOR BRACKISH WATER SNAIL

D/D' (SEE FIGURE 10-2)



The Habitat Restoration Group  
 • Mitchell Swanson & Associates • VB Agricultural Services  
 • Applied Marine Sciences

Moro Cojo Slough Management and Enhancement Plan  
 Preferred Plan for Lower Watershed

2/96  
 705-01  
 Figure 10-1

## CALIFORNIA COASTAL COMMISSION

CENTRAL COAST AREA OFFICE  
640 CAPITOLA ROAD  
SANTA CRUZ, CA 95062  
(408) 479-3511

Filed: 12/04/92  
49th Day: 01/22/93 (waived)  
180th Day: 06/02/93  
Staff: J. Sheele/cm  
Staff Report: 12/17/92 1432P  
Hearing Date: 03/19/93  
Commission Action:



ADOPTED

AMENDMENTSTAFF REPORT: CONSENT CALENDAR

APPLICATION NO.: 3-89-4-A

APPLICANT: MONTEREY COUNTY DEPARTMENT OF PUBLIC WORKS  
c/o Monterey County Water Resources Agency

AMENDMENT DESCRIPTION: Request for a time extension for the preparation of  
the Moro Cojo Slough Management Plan

PROJECT LOCATION: Moss Landing Road between Highway 1 and Sandholdt Road,  
Moss Landing, North Monterey County, APN 133-221-0,  
County Road.

PROJECT DESCRIPTION: Replacement of three existing 48-inch tidegates and  
culverts, install headwall, rip-rap and grading.

Lot area:	County Road
Zoning:	Resource Conservation
Plan designation:	Resource Conservation - Wetlands and Coastal Strand

LOCAL APPROVALS RECEIVED: Monterey County Planning Commission approval,  
Department of Fish and Game permit, Corps of Engineers permit and Moss  
Landing Harbor District authorization.

## SUBSTANTIVE FILE DOCUMENTS:

- o Biological Assessment of Wetland Environments Impacted by Culvert Repairs at  
the Mouth of Moro Cojo Slough, by ABA Consultants, November 28, 1988.
- o 3-85-112 Monterey County Flood Control and Water Conservation District.
- o Monterey County Local Coastal Program certified December, 1987.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants a permit amendment, subject to the conditions  
below, for the proposed development on the grounds that the development, as  
conditioned, will be in conformity with the provisions of Chapter 3 of the  
California Coastal Act of 1976, will not prejudice the ability of the local  
government having jurisdiction over the area to prepare a Local Coast

EXHIBIT NO. 2

APPLICATION NO.  
3-89-4 CP2-97original, amended  
permit

Program conforming to the provisions of Chapter 3 of the Coastal Act, is located between the sea and the first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

## II. Standard Conditions.

See Exhibit A of 3-89-4.

## III. Special Conditions.

NOTE: Special Conditions No.'s 1 through 6 of the original permit 3-89-4 remain unchanged, see Exhibit B. Condition No. 7 is modified as follows (underlining denotes added text):

7. Will/within/six/months/of/the/dates/of/project/approval/ On or before September 30, 1994, in accord with the amendment time schedule (see Exhibit A), the permittee shall submit a comprehensive wetland management plan for Moro Cojo Slough for the Coastal Commission's review and approval. The plan shall be prepared by a qualified biologist/hydrologist. The plan shall determine the effectiveness of the project and identify necessary maintenance measures. The plan shall be based on the material within and the recommendations of the "Biological Assessment of Wetland Environments Impacted by Culvert Repairs at the Mouth of Moro Cojo Slough" by ABA Consultants, November 28, 1988, see Exhibit C of 3-89-4. A post-project monitoring phase of the plan shall include measurements of salinity and tide height as well as biological observations, and measures for enhancement and restoration of the wetland. The plan shall also contain recommendations regarding adjustments of the tidegates. The final setting shall provide for a wide range of salinity at the slough mouth depending largely on variations in freshwater inflow, as recommended in the project's "Biological Assessment." The plan shall receive prior review and approval by Monterey County Planning Department and any other applicable state and federal agencies.

Annual summary letter/reports based on the approved comprehensive wetland management plan for Moro Cojo Slough shall be submitted to the Executive Director's review and approval for a minimum of five years following approval of the wetland management plan. The letter/report shall receive prior approval from Monterey County Planning Department, the Department of Fish and Game and any other applicable state and federal agencies. The letter/report shall continue to determine project effectiveness, identify maintenance measures and long-term wetland enhancement measures. All recommendations contained in the wetland management plan (as approved by the Commission) and follow-up letter/reports shall be implemented in a timely manner and in an operation schedule approved by the Executive Director.

Annual monitoring reports for the Moro Cojo Slough tidegates shall be submitted for the Executive Director's review and approval during the interim period between approval of the project amendment and the completion of the Moro Cojo Slough Management Plan. The annual report shall continue to determine project effectiveness, identify maintenance measures, include an operation schedule for implementation of recommended maintenance measures, implement recommendations included in the previous annual monitoring report(s), and continue post-project monitoring criteria as set-forth in paragraph 1 of this condition.

#### IV. Findings and Declarations.

The Commission hereby finds and declares:

##### 1. Amendment Description and Background

The proposed amendment includes a request for a time extension for the preparation of the Moro Cojo Slough Management Plan. In February, 1989, the Commission approved coastal permit 3-89-4 Monterey County Department of Public Works, to allow for the replacement of three tidegates and culverts, headwall and rip-rap installation and grading. The project location was Moss Landing Road between Highway 1 and Sandholdt Road, North Monterey County. Condition No. 7 of that approval required the submittal of a comprehensive wetland management plan for Moro Cojo Slough for Commission review and approval by August 7, 1989, (see Exhibit B).

The applicant has submitted annual monitoring reports but the management plan has not been completed or submitted. According to the schedule submitted by the applicant (see Exhibit A), the draft management plan is expected to be completed in February, 1994, and adoption of the plan by the Monterey County Planning Commission is expected in June, 1994. The applicant is requesting a time extension pursuant to the schedule attached in Exhibit A.

The tidegates were installed pursuant to coastal development permit 3-89-4; however, the required management plan for Moro Cojo Slough was not submitted in a timely manner as required by permit conditions. Approval of this permit amendment does not constitute a waiver of any legal action with regard to any violation of the Coastal Act that may have occurred.

##### 2. Wetland Resources

Applicable wetland resources policies from the Coastal Act and the Land Use Plan for North Monterey County are cited in the original staff report (Exhibit B, pages 4 and 5).

The amendment proposal is for a time extension for the preparation of the Moro Cojo Slough Management Plan, a condition of the original project approval. The applicant has indicated that, "The complexity and high cost of preparing

the proposed Moro Cojo Slough Management Plan has made it difficult to secure the funding necessary to initiate the study." (See Exhibit A, Letter of August 6, 1992, from Joe Madruga, Assistant General Manager, Monterey County Water Resources Agency.)

Conditions of the original permit required submittal of the Moro Cojo Slough Management Plan within six months of the date of project approval, which means the due date was August 7, 1989. Annual summary reports were also required for a minimum of five years following the approval of the Management Plan by the Commission. The applicant has been submitting annual monitoring reports for the Moro Cojo tidegates prepared by ABA Consultants, Environmental Research, Assessment and Planning; however, the 1992 annual report has not yet been submitted.

It is appropriate to approve the time extension as requested by the applicant. The Moro Cojo Slough Management Plan submittal will continue to require Coastal Commission review and approval. Annual reports will continue to be required after the approval by the Commission of the Management Plan. In the interim, the condition requiring the submittal of the Management Plan, will be modified to require the submittal of annual tidegate monitoring reports.

As conditioned, to modify the time frame for submittal of the Moro Cojo Management Plan and to require the submittal of annual monitoring reports during the interim period, the project amendment is consistent with Sections 30233 and 30253 of the Coastal Act and certified LUP resource management policies.

### 3. LCP/CEQA

The Monterey County Local Coastal Program was certified by the Commission in December, 1987. The County is now the agency responsible for issuing coastal development permits. However, this project location is within the Coastal Commission's original jurisdiction which requires the issuance of a coastal development permit by the Coastal Commission. The project has been reviewed and approved by the Monterey County Planning Commission. As conditioned, approval of this amendment is consistent with Chapter 3 of the Coastal Act and with the policies contained in the Monterey County Local Coastal Program.

A negative declaration for the original tidegate replacement project was adopted by Monterey County on November 30, 1988. As conditioned, the proposed project amendment will not create any significant adverse environmental impacts within the meaning of the California Environmental Quality Act.



TENTATIVE SCHEDULE FOR THE  
MORO COJO SLOUGH MANAGEMENT PLAN

<u>ACTIVITY</u>	<u>DATE</u>
1. Grant request submitted by Planning Department to the Coastal Conservancy.	March, 1992
2. Coastal Conservancy public hearing.	June, 1992
3. Prepare grant agreement and advertise for proposals.	August, 1992
4. Award of contract for Management Plan.	January, 1993
5. Complete initial investigation of existing conditions and recommend interim criteria for managing the slough.	May, 1993
6. Complete draft Moro Cojo Slough Management Plan and distribute to regulatory agencies for comments.	February, 1994
7. Complete CEQA initial study.	March, 1994
8. Complete 45 day review period for Agency comments.	May, 1994
9. Monterey County Planning Commission public hearing and adoption of management plan.	June, 1994

qa3/schedule.pk/cc

CALIFORNIA COASTAL COMMISSION

EXHIBIT A 3-89-4A

3/5

(PART OF EXHIBIT 2)

CALIFORNIA COASTAL COMMISSION

## CENTRAL COAST DISTRICT

701 OCEAN STREET

SANTA CRUZ, CA

(408) 426-7390

640 CAPITOLA ROAD

SANTA CRUZ, CA 95062

Filed: 01/13/89  
 49th Day: 03/10/89  
 180th Day: 07/20/89  
 Staff: J. Sheele/cm  
 Staff Report: 01/24/89 0872P  
 Hearing Date: 02/07/89  
 Commission Action:

**ADOPTED**STAFF REPORT: CONSENT CALENDAR

APPLICATION NO.: 3-89-4

APPLICANT: MONTEREY COUNTY DEPARTMENT OF PUBLIC WORKS  
 c/o Monterey County Flood Control and Water Conservation Dist.

PROJECT LOCATION: Moss Landing Road between Highway 1 and Sandholdt Road,  
 Moss Landing, North Monterey County, APN 133-221-0,  
 County Road.

PROJECT DESCRIPTION: Replacement of three existing 48-inch tidegates and  
 culverts, install headwall, rip-rap and grading.

Lot area:	County Road
Zoning:	Resource Conservation
Plan designation:	Resource Conservation - Wetlands and Coastal Strand

LOCAL APPROVALS RECEIVED: Monterey County Planning Commission approval,  
 Department of Fish and Game permit, Corps of Engineers permit and Moss  
 Landing Harbor District authorization.

## SUBSTANTIVE FILE DOCUMENTS:

- o Biological Assessment of Wetland Environments Impacted by Culvert Repairs at the Mouth of Moro Cojo Slough, by ABA Consultants, November 28, 1988.
- o 3-85-112 Monterey County Flood Control and Water Conservation District.
- o Monterey County Local Coastal Program certified December, 1987.

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution:

I. Approval with Conditions.

The Commission hereby grants a permit, subject to the conditions below, for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3 of the Coastal Act, is located

CALIFORNIA COASTAL COMMISSION

EXHIBIT B - 3-89-4A  
 1/17 of EXHIBIT 2

between the sea and the first public road nearest the shoreline and is in conformance with the public access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions.

See Exhibit A.

III. Special Conditions.

1. PRIOR TO TRANSMITTAL OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit the following for the Executive Director's review and approval:
  - A. Final engineered drawings and plans in conformance with the applicant's submitted proposal. Final plans shall include at least one culvert equipped with an adjustable gate to permit controlled inflow of salt water to maintain the present lagoon habitat at the slough mouth. Plans shall also indicate the limits of construction area, the staging area, vegetation overlay, siting for the roadside guard railing to allow for maximum pedestrian/bicycle access opportunity along Moss Landing Road, and plans for the proposed temporary water control. Project timing and operation schedule shall also be submitted. Traffic detour plans shall be coordinated with Caltrans.
  - B. Revegetation and restoration plans for the defined construction area as set forth in Agreement No. 969-88 with the Department of Fish and Game. The plans shall receive prior approval from the Department of Fish and Game. Construction area shall be immediately stabilized with wetland species as approved by the Department of Fish and Game. The restoration plan shall include a timetable for installation and measures for maintenance and assurance of habitat re-establishment.
2. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the limits of all work approved by this permit shall be staked, and a field inspection shall be conducted by staff to verify the project limits as shown on the final plans. Staff shall be notified of staking within five working days prior to the required inspection.
3. PRIOR TO ISSUANCE OF A COASTAL DEVELOPMENT PERMIT, permittee shall provide to the Executive Director a copy of the U.S. Corps of Engineers permit, or letter of permission, or evidence that no Corps permit is necessary.
4. All conditions of Monterey County Planning Commission approval No. PC-6745 shall be considered conditions of this permit as well, see Exhibit B.
5. The construction of a coffer dam is not authorized by this approval and will require an amendment of this coastal development permit.
6. Off-site disposition of spoils within the coastal zone shall require prior authorization by the Executive Director.

III. Special Conditions (continued)

(see amended condition)

7. Within six months of the date of project approval, the permittee shall submit a comprehensive wetland management plan for Moro Cojo Slough for the Coastal Commission's review and approval. The plan shall be prepared by a qualified biologist/hydrologist. The plan shall determine the effectiveness of the project and identify necessary maintenance measures. The plan shall be based on the material within and the recommendations of the "Biological Assessment of Wetland Environments Impacted by Culvert Repairs at the Mouth of Moro Cojo Slough" by ABA Consultants, November 28, 1988, see Exhibit C. A post-project monitoring phase of the plan shall include measurements of salinity and tide height as well as biological observations, and measures for enhancement and restoration of the wetland. The plan shall also contain recommendations regarding adjustments of the tidegates. The final sitting shall provide for a wide range of salinity at the slough mouth depending largely on variations in freshwater inflow, as recommended in the project's "Biological Assessment." The plan shall receive prior review and approval by Monterey County Planning Department and any other applicable state and federal agencies.

Annual summary letter/reports based on the approved comprehensive wetland management plan for Moro Cojo Slough shall be submitted to the Executive Director's review and approval for a minimum of five years following approval of the wetland management plan. The letter/report shall receive prior approval from Monterey County Planning Department, the Department of Fish and Game and any other applicable state and federal agencies. The letter/report shall continue to determine project effectiveness, identify maintenance measures and long-term wetland enhancement measures. All recommendations contained in the wetland management plan (as approved by the Commission) and follow-up letter/reports shall be implemented in a timely manner and in an operation schedule approved by the Executive Director.

IV. Findings and Declarations.

The Commission hereby finds and declares:

1. Project Description and Background

The proposed application is for the replacement of three existing 48-inch tidegates and culverts, installation of a headwall, rip-rap and grading beneath Moss Landing Road at the crossing of Moro Cojo Slough (between Highway 1 and Sandholdt Road), Moss Landing. The replacement tidegates and culverts will be the same size and length; they'll be located at the same elevation and have the same function as the existing tidegates and culverts. The replacement culvert will be reinforced concrete pipe with a headwall and rock slope protection at the outlets, see Exhibits 2 and 3. Approximately 600 cubic yards of grading is proposed. Temporary water control during construction will be obtained using sandbags, water pumps, and plastic

CALIFORNIA COASTAL COMMISSION

EXHIBIT B 3-89-4A of EXHIBIT 2

31- cont.

sheeting between the headwall and the shore. The sandbags and plastic sheeting will be removed after the pipe installations. Local traffic detour may be necessary during construction. It is appropriate that the applicant coordinate detour plans with Caltrans.

A coffer dam to dewater the area during construction was not proposed as part of this application. An amendment to this permit is required if coffer dam installation is needed.

In July, 1985, the Commission approved a coastal development permit for Monterey County Flood Control and Water Conservation District, 3-85-112, for one additional 48-inch tidegate to augment the three existing tidegates.

The Moro Cojo Slough watershed has a total area of approximately 16.9 square miles. The lower portion of the watershed between State Highway 1 and Castroville Boulevard includes a significant amount of agricultural lands at elevations between 1.5 and 2.0 feet NGVD (National Geodetic Vertical Datum). In the past, levees were constructed to protect some of these lands from periodic flooding. In March of 1983, approximately 432 acres of land were under water from the tidegates at Moss Landing Road to points upstream of Castroville Boulevard and State Highway 156. This flooding caused a significant financial loss to the farmers and landowners of these properties and if corrective actions are not taken, additional future losses can be expected under adverse storm conditions.

## 2. Wetland Resources

Sited under Moss Landing Road at its crossing with Moro Cojo Slough, the project site is located within a wetland area. Vegetation in the immediate project area is predominantly salt grass and pickleweed.

Section 30233 of the Coastal Act states:

(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:

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary.

CALIFORNIA COASTAL COMMISSION

EXHIBIT B 3-89-4A EXHIBIT 2  
4/17 cont.

The Land Use Plan for North Monterey County has been certified by the Commission. The LUP designates the Moro Cojo Slough as Resource Conservation and contains policies to provide for resource protection and enhancement.

The following are excerpts from the LUP Resource Management policies:

2.4.2.4

Diking, dredging, or filling in Elkhorn Slough, Bennett/Struve Slough, McClusky Slough, Moro Cojo Slough, and Parson's Slough shall maintain or enhance the biological productivity of the wetland or estuary. Any alteration of the coastal estuaries and wetlands in North County shall be limited to restorative measures and appropriate facilities associated with access, research, education, and aquaculture according to specific criteria designated in a wetland management plan. Prior to completion of wetland management plans, appropriate facilities are those consistent with Section 30233(a) of the Coastal Act.

2.4.2.5

Any site disrupted by future diking, dredging, or filling activities shall be fully restored to its original condition whenever desirable. The initial restoration work shall be undertaken immediately following project completion.

2.4.3.4

The full wildlife habitat value of Moro Cojo Slough has been limited by the extensive construction of levees and tidegates. The tidegate at the mouth of the slough under Moss Landing Road should be opened to a degree that allows adequate tidal flushing and exchange while not endangering agricultural land.

2.4.4.2

A Coastal Conservancy or Moss Landing Harbor District project should be initiated to determine to what extent restoration of tidal action in Moro Cojo Slough will threaten viable agricultural land. Restoration and construction of dikes and levees to protect viable agricultural land should be permitted. Coastal Conservancy funds should be requested to assist these efforts. No removal of tidegates or replacement of culverts can take place until it can be assured that no damage to bordering agricultural land will occur.

The proposed project is for the replacement of three existing tidegates and culverts. Approvals for the project have been granted by the Monterey County Planning Commission, the Department of Fish and Game, the Army Corps of Engineers and Moss Landing Harbor District.

CALIFORNIA COASTAL COMMISSION

EXHIBIT B 3-89-4A EXHIBIT 2  
5/17 cont.

A "Biological Assessment of Wetland Environs Impacted by Culvert Repairs at the Mouth of Moro Cojo Slough" was prepared by ABA Consultants, on November 28, 1988. The report includes the history of the Moro Cojo wetland, the environmental setting before and impacts of recent culvert repairs, and mitigation measures and recommendations.

The tidegates and culverts were installed to drain the slough of freshwater and prevent tidal flow up slough. However, they have leaked significant quantities of saltwater into the slough since their initial installation according to the Biological Assessment. The Biological Assessment states, "The short and long-term solution to the management of water drainage from Moro Cojo must be developed in a sound wetland management plan."

The Biological Assessment lists six species of salt marsh plants that are common at the mouth of Moro Cojo and two aquatic plants, species of green algae. The assessment also identifies wildlife in the wetland. The most conspicuous animals are birds. The only endangered species that lives at the mouth of the slough is the brackish water snail. According to the assessment, this species is as abundant today as it was in past surveys and generally occupies the same shallow, submerged habitat. The biological consultant recommends, "that at least one of the Moss Landing Road culverts be equipped with an adjustable gate which will permit controlled inflow of salt water to maintain the present lagoon habitat at the slough mouth," (see Exhibit C). The adjustable gate would also allow for maximum flexibility in planning for future enhancement and restoration of wetlands as established in a comprehensive wetland management plan for Moro Cojo according to the Biological Assessment.

The proposed project was approved by the Department of Fish and Game under Agreement Regarding Proposed Stream or Lake Alteration, No. 969-88. One of the conditions of the agreement is that any disturbed vegetation is to be restored to prior state or improved. As provided for in condition No. 1.B. of this approval, it is appropriate for the Department of Fish and Game to approve the revegetation and restoration plans for the defined construction area.

As recommended by the biological consultant for the project it is appropriate to require at least one of the culverts be equipped with an adjustable gate to control the inflow of salt water. It is also important to require a comprehensive management plan for Moro Cojo Slough. The "Biological Assessment" states that the development of a comprehensive wetland management plan for Moro Cojo Slough is mandated by the Local Coastal Program and will be jointly funded by Monterey County and the State Coastal Conservancy, (see Exhibit C).

As conditioned, the project will have no significant impacts on wetland vegetation. Conditions require that revegetation and restoration plans be prepared, project area be staked and reviewed by staff and a monitoring and management programs be developed. Disposition of spoils within the coastal zone will require prior authorization by the Executive Director. Conditions

CALIFORNIA COASTAL COMMISSION

EXHIBIT B 3-89-4A of EXHIBIT 2  
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of the County's approval are also included as conditions of this coastal development permit; (see Exhibit B). Accordingly, the project is consistent with Sections 30233 and 30253 of the Coastal Act and certified LUP resource management policies.

### 3. Coastal Access

Coastal Act Section 30211 states:

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

In addition, Coastal Act public access policies require provisions for maximum access and recreational opportunities for all people consistent with public safety needs and protection of natural resource areas from overuse.

The North County LUP also contains policies to maximize public coastal access. LUP Policy 6.3.2 lists Moss Landing Road-access to Moro Cojo Slough as a secondary access area. As conditioned, to review final project plans, and to allow for the maximum feasible area for pedestrian and bicycle access along this portion of Moss Landing Road, the development is consistent with Section 30211 of the Coastal Act and LUP public access policies.

### 4. Agriculture

The purpose of the proposed project is to regulate the water flow in the Moro Cojo Slough so as to prevent upstream flooding during periods of high tides. By equalizing water flow during high tides, flooding of the upstream agricultural fields can be prevented under normal circumstances. No change in the amount of existing agricultural land is proposed. The project is consistent with Section 30241 of the Coastal Act and the certified LUP agricultural policies.

### 5. LCP/CEQA

The Monterey County Local Coastal Program was certified by the Commission in December, 1987. The County is now the agency responsible for issuing coastal development permits. However, this project location is within the Coastal Commission's original jurisdiction which requires the issuance of a coastal development permit by the Coastal Commission. The project has been reviewed and approved by the Monterey County Planning Commission. As conditioned, approval of this project is consistent with Chapter 3 of the Coastal Act and with the policies contained in the Monterey County Local Coastal Program.

A negative declaration was adopted by Monterey County on November 30, 1988. As conditioned, the proposed project will not create any adverse environmental impacts within the meaning of the California Environmental Quality Act. **EXHIBIT**

**COASTAL COMMISSION**

**EXHIBIT B 3-89-4A**



## 9. Mitigation and Recommendations

The one major mitigation we recommend for the culvert repairs at Moss Landing Road is that the Moss Landing Road culverts be fitted with at least one adjustable gate. This recommendation is also supported in the attached letter from Robert Coates of Philip Williams and Associates, who strongly recommends slide flap gates as the most versatile option. Slide flap or similar gates can be adjusted to permit a controlled inflow of tidal waters into the mouth of the slough or closed down entirely to act like the present gates. Any future wetland management plan for the slough must permit some tidal influence at the slough mouth and prevent salt water from intruding too far up the slough. Therefore, the inclusion of an adjustable gate in the present replacement process permits a wide variety of future management options. These options must be examined and finalized in a comprehensive wetland plan for Moro Cojo. The development of this plan is mandated by the Local Coastal Plan and will be funded jointly by Monterey County and the State Coastal Conservancy.

We recommend that as an interim measure the adjustable gates be opened only slightly to maintain the present brackish water lagoon at the slough mouth. We also recommend that the Monterey County Flood Control and Public Works involve local wetland scientists in the initial gate adjustments, because the first gap settings will be experimental. They can provide important feedback on how close the permitted inflow of salt water approaches the historical leakage through the past culvert and flap-gate system. The final setting will provide for a wide range of salinity at the slough mouth depending largely on variations in freshwater inflow. The water level in the lagoon near the culverts should be kept above the minimum level to maintain the habitats as they are now. A minimum water level similar to that of October and November 1988, between -1.5 and -2.0 feet NGVD (Monterey County Flood Control, pers. comm.), should accomplish this objective. The wetland scientists who assist with setting the initial gate adjustments can also advise on the appropriate water levels. The important mitigation is to establish some controlled inflow of salt water, and a gate specifically designed for this purpose is an absolute necessity. Adjustable gates allow a number of future options that must still be determined in the wetland management plan.

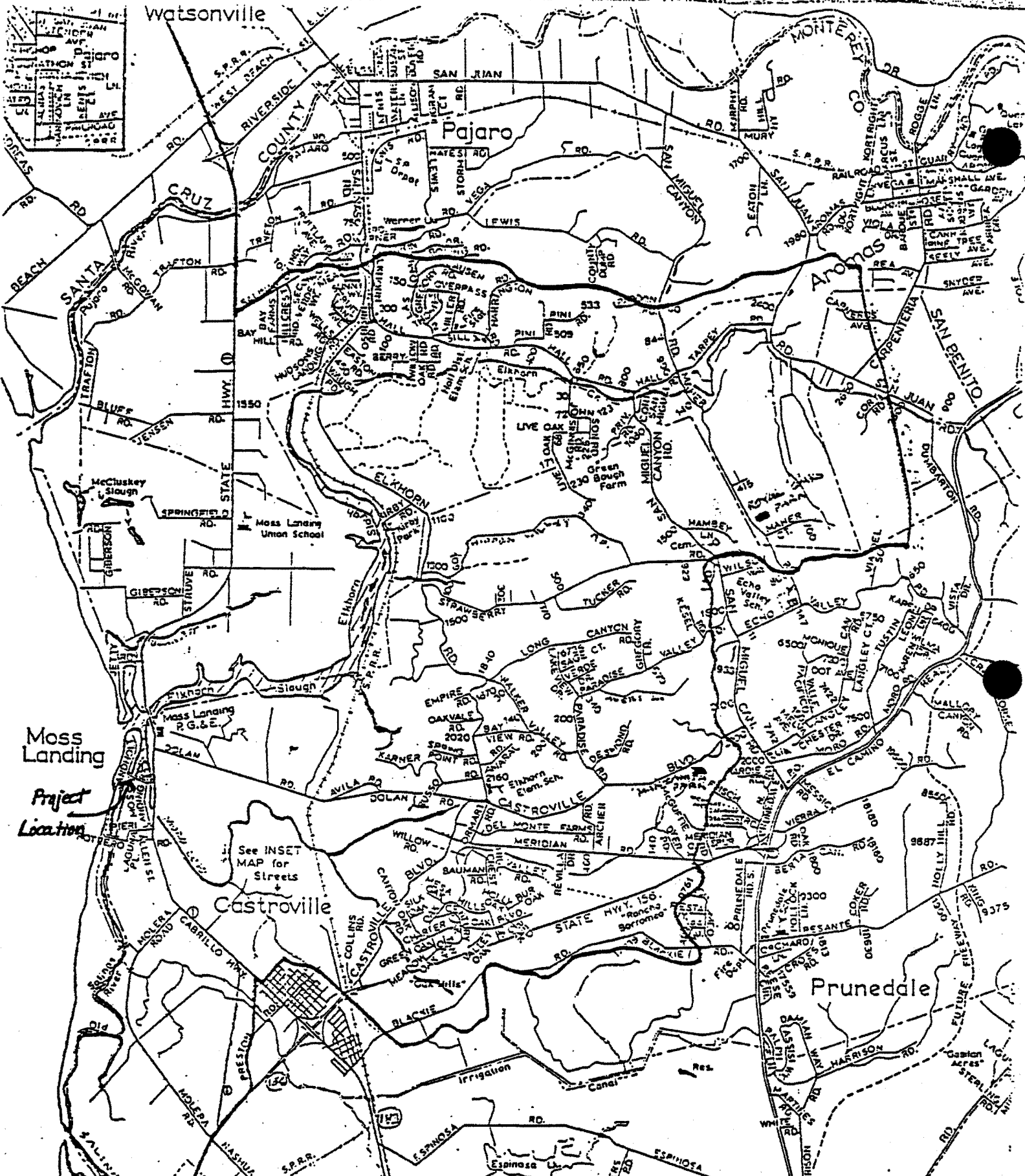
EXHIBIT NO. C
APPLICATION NO. 3-89-4
Recommendations from the "Biological Assessment"

CALIFORNIA COASTAL COMMISSION **ABA Consultants**

EXHIBIT B 3-89-4A

EXHIBIT

Watsonville



Moss Landing  
Project Location

See INSET MAP for Streets

CALIFORNIA COASTAL COMMISSION  
EXHIBIT B 3/89-4A

EXHIBIT NO. /
APPLICATION NO. 3-89-4
Location Map of EXHIBIT 2 cont

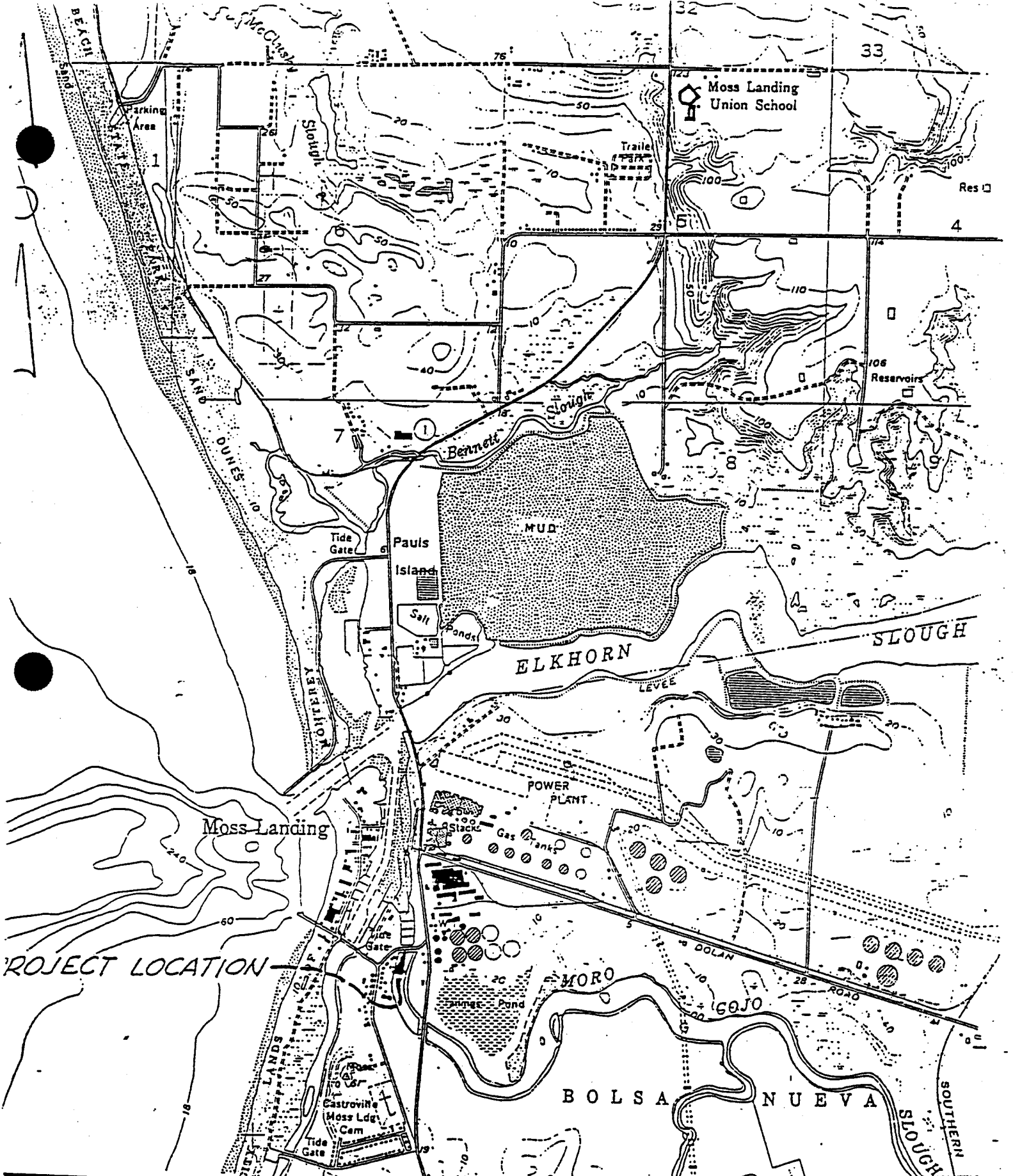


EXHIBIT NO. 1  
 APPLICATION NO. 3-89-4  
 Location Map  
 California Coastal Commission

CALIFORNIA COASTAL COMMISSION  
 EXHIBIT B 389-4A  
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MONTEREY COUNTY  
 FLOOD CONTROL & WCD  
 MOSS LANDING RD. TIDE GATES  
 LOCATION MAP of EXHIBIT 2  
 cont.

