

**SAN JOAQUIN RESERVE ENHANCEMENT
PHASE I AUGMENTATION**

REVISED

COASTAL CONSERVANCY

Project Summary

May 27, 1999

SAN JOAQUIN RESERVE ENHANCEMENT

PHASE I AUGMENTATION

REVISED

File No. 89-029

Project Manager: Patsy Heasly

RECOMMENDED ACTION: Acceptance of funds from the League for Coastal Protection, and disbursement of funds to the Huntington Beach Wetlands Conservancy and the University of California for implementation of Phase I of the San Joaquin Reserve Enhancement project.

LOCATION: San Joaquin Freshwater Marsh Reserve, University of California, Irvine, Orange County (Exhibit 1)

PROGRAM CATEGORY: Resource Enhancement

ESTIMATED COST: **Proposed Authorization**

Coastal Conservancy	
(Wetlands Recovery Project)	\$ 450,000
League for Coastal Protection	53,000

Previous Authorization (September 18, 1997)

Coastal Conservancy	\$ 700,000
League for Coastal Protection	700,000
San Joaquin Hills Transportation Corridor Authority	400,000
Irvine and Clarke Foundation	125,000
U.C. Natural Reserve System (In-kind services)	<u>50,000</u>

TOTAL PROJECT COST	\$2,478,000
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NET CONSERVANCY COST	\$1,150,000
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PROJECT SUMMARY: This authorization would provide additional funds needed to implement Phase I of the San Joaquin Reserve Enhancement Plan, adopted by the Conservancy on September 18, 1997 (Exhibit 2). The additional funding is required because of refinements and improvements made to the project during the final

design process. In order to complete the project this year, full funding must be available by June so that construction can begin in July.

Provision of the recommended funding would result in on-the-ground, physical habitat enhancement that has been in the making for 10 years. The Conservancy's first planning grant for the area was awarded in 1989. After a change in both project participants and project boundaries as well as revisions to the draft plan that was completed in 1991, the Conservancy approved the San Joaquin Reserve Enhancement Plan in 1997 and authorized funding for implementation of its first phase. Refinements to the plan have required additional funding which is the subject of this recommendation.

The proposed project is designed to restore some of the site's most important natural characteristics which have been significantly altered and degraded due to the effects of a century of agricultural and urban development in the wetlands and surrounding watersheds of the Reserve. The focus of Phase I is the development of a water supply and distribution system that would enable the Reserve manager to bring in supplemental water from San Diego Creek to maintain a diversity of seasonal and permanent wetland habitats. Other key elements of the proposed project are: excavation and revegetation of degraded seasonal ponds, improvements to water outflow conditions, and establishment of coastal sage scrub and riparian habitats.

The primary source of funds for the proposed authorization is Conservancy's Wetlands Recovery Project (Recovery Project) account. Supplemental funds have also been contributed by the League for Coastal Protection (LCP), which found that dedication of an additional \$53,000 would benefit not only the project but also its own fiscal circumstances.

The project has the active support of two local nonprofit organizations, LCP and the Huntington Beach Wetlands Conservancy (HBWC), as well as the University of California and the University Natural Reserve System. The Conservancy has long-standing working relationships with both the University and the HBWC and has observed LCP's excellent advocacy on behalf of coastal resources over the years. The HBWC has demonstrated both its commitment and its abilities in managing coastal resource projects, through its critical roles in the Talbert Marsh Enhancement Project and a recently completed wildlife care center. The HBWC is an ideal local partner for managing construction and is eager to begin the project.

COASTAL CONSERVANCY

Staff Recommendation

May 27, 1999

SAN JOAQUIN RESERVE ENHANCEMENT

PHASE I AUGMENTATION

REVISED

File No. 89-029

Project Manager: Patsy Heasly

STAFF

RECOMMENDATION: Staff recommends that the State Coastal Conservancy adopt the following Resolution pursuant to Sections 31251-31270 and 31104 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes acceptance and disbursement of fifty-three thousand dollars (\$53,000) from the League for Coastal Protection, and disbursement of five hundred three thousand dollars (\$503,000) to the Huntington Beach Wetlands Conservancy (HBWC) and the University of California for implementation of Phase I of the San Joaquin Reserve Enhancement project, subject to the following condition:

Prior to the disbursement of any funds for project construction, the Executive Officer of the Conservancy shall approve, in writing, a final work program, budget, schedule, construction drawings, and any contractors or subcontractors that the HBWC intends to employ to implement Phase I of the enhancement plan; and the Executive Officer shall be satisfied that all permits and approvals necessary to implement this project have been obtained and fulfilled."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the purposes and criteria set forth in Chapter 6 of the Public Resources Code (Sections 31251-31270) regarding the enhancement of coastal resources;

2. The proposed project is consistent with section 31104 of the Public Resource Code regarding the ability of the Conservancy to accept financial support from private sources;
 3. The proposed project is consistent with the guidelines and criteria set forth in the Conservancy's Resource Enhancement Program Announcement as amended June 24, 1994;
 4. The need for public protection and stewardship of San Joaquin Marsh has been demonstrated through its designation as a University of California Natural Reserve;
 5. The proposed project remains consistent with the project analyzed in the Negative Declaration for Phase I of the Revised San Joaquin Marsh Enhancement Plan approved by the Conservancy on September 18, 1997;
 6. The HBWC is a nonprofit organization existing under Section 501(c)(3) of the United States Internal Revenue Code, having among its principal charitable purposes the preservation of land for scientific, historic, educational, recreational, agricultural, scenic or open-space opportunities; and
 7. Funding for Phase I of the San Joaquin Reserve Enhancement was approved by the Wetlands Recovery Project at its May 21, 1999 meeting."
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STAFF DISCUSSION:

Project Description: Approved by the Conservancy on September 18, 1997, the project is an enhancement of the marsh, seasonal wet meadow, riparian woodland, and coastal sage scrub habitats within the San Joaquin Freshwater Marsh Reserve at the University of California, Irvine. The project addresses numerous alterations to which the marsh and adjacent uplands were subjected in the century preceding establishment of the Reserve: imported fill and the construction of dikes to enable agricultural production onsite, later dredging and more diking for the creation of duck-hunting ponds, dislocation of the site from both tidal influences and its natural freshwater source, and damage to the wetland plant community caused by the radically altered hydrological regime and the introduction of non-native, disturbed soils. Implementation of the Reserve enhancement plan would begin to reverse these damages and significantly improve the habitat value of one of the few freshwater marshes in southern Califor-

nia. The objectives of the project are to provide a self-sufficient water supply system for the marsh and adjacent habitats, increase and improve habitat characteristics of the historical natural gradient at the site, and provide University research, teaching, and public outreach opportunities.

The enhancement of San Joaquin Freshwater Marsh Reserve has been structured to proceed in two phases. As indicated above, implementation of Phase I has already begun pursuant to a previous Conservancy authorization. One of the first steps in implementing an enhancement plan is development of a detailed design so that engineering level specifications can be prepared for the construction contractor. These designs also provide the information for a refined estimate of the construction cost. In the process of preparing the designs for this particular project, three factors emerged that resulted in a higher cost estimate for the final project. First, the amount of excavation was increased to both deepen the ponds and provide a more varied topography. Not only will this result in a more diverse habitat, but the increased depths will ensure the longevity of the project and lessen the labor needed to maintain target water levels, a critical aspect of the project. Second, a more substantial water intake structure was developed to facilitate the management of water levels on the project site over the long-term. Finally, the acreage to be replanted has been increased to facilitate the establishment of desirable plant species which might be out-competed if the area were left to recolonize passively. Other details of the project developed during final design will actually save costs. These include a plan for salvaging and replanting plants already growing onsite, and making use of all dredged material to raise and reinforce the pond levees. Staff believes that these measures, in developing concepts outlined in the plan, most fully implement project objectives while assuring the long-term viability of the project.

Project Financing: The main source of funds for augmenting the Conservancy's contribution to the project would be the Wetlands Recovery Project account (formerly Southern California Wetlands Clearinghouse). These funds are dedicated to 41 coastal wetlands and watersheds in Southern California, including the San Joaquin Reserve. Expenditures from this source must be approved by both the Conservancy and the Recovery Project's Governing Board. The Governing Board approved funding for the San Joaquin Reserve project on May 21, 1999.

Previously approved funding for the project comes from four sources: the Conservancy, the League for Coastal Protection, the San Joaquin Hills Transportation Corridor Authority (SJHTCA) and the Irvine and Clarke Foundation. Even with the proposed augmentation, Conservancy funds are more than matched by contributions from primarily private sources. Indeed, since the Conservancy's prior authorization, the League for Coastal Protection increased their contribution by over \$53,000 having found that doing so would both benefit the project and simplify their own financial affairs. In addition, the UC Natural Reserve will continue to contribute in-kind services, including carrying out the riparian planting, providing construction supervision and taking on the long-term operation and maintenance of the project.

Proposed Authorization

Coastal Conservancy	
(Wetlands Recovery Project or HCF)	\$ 450,000
League for Coastal Protection	53,000

Previous Authorization (September 18, 1997)

Coastal Conservancy	\$ 700,000
League for Coastal Protection	700,000
San Joaquin Hills Transportation Corridor Authority	400,000
Irvine and Clarke Foundation	125,000
U.C. Natural Reserve System (In-kind services)	<u>50,000</u>

TOTAL PROJECT COST	\$2,478,000
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NET CONSERVANCY COST	\$1,150,000
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Project Budget

Final Design, permits, engineering	245,600
Wetland Construction	1,453,418
Coastal Sage Scrub Construction	400,000
Construction Management	238,000
Contingency	95,982
Monitoring	25,000
Operation & Maintenance	<u>20,000</u>
(In-kind)	
TOTAL	\$2,478,000

Site Description: The project is being carried out on the San Joaquin Freshwater Marsh Reserve at the University of California, Irvine. The site contains approximately 202 acres of remnant wetlands that were once part of an extensive marsh system formed by the Santa Ana River, San Diego Creek and Upper Newport Bay. It

is among the largest of the few freshwater wetlands in southern California and provides vital habitat to wintering and migrating birds as well as a variety of resident and local species. The University administers the reserve for academic and public purposes as a natural laboratory of wetland habitats for University level teaching, study, and scientific research, and for public outreach including K-12 classes and guided tours.

Within the Reserve are perennial and seasonal fresh to brackish water marsh and ponds, riparian, and coastal sage scrub habitats. The seasonal ponds are contained within a series of dikes put in place in the 50s and 60s by local duck clubs. Formerly these ponds would dry out in the early spring and support a wet meadow of seasonal grasses and herbs; however in recent years marsh plants have persisted year round and advanced into the area where water used to pond. In addition, several culverts between the ponds have collapsed or become clogged, reducing the potential for floodwaters to reach the ponds. The amount of open water in the historically permanent ponds has also been significantly reduced due to siltation and the subsequent spreading of emergent plants.

The pond areas are surrounded by more than 100 acres of predominantly freshwater marsh vegetation. A dense growth of riparian shrubs and trees has developed on the levees separating the seasonal ponds and along the margin of the Reserve. Also on the San Diego Creek levee adjacent to the marsh is an area of successful experimental coastal sage scrub plantings. In addition to these habitats, southwest of the ponds, there is a six-acre mitigation site of open water, marsh, and riparian scrub habitats, constructed by a private entity on property also owned and managed by the University.

The project area is surrounded by the UC Irvine campus to the north, Campus Drive and a riparian mitigation area owned by the Irvine Ranch Water District (IRWD) to the east, the leveed San Diego Creek to the south, and a capped landfill to the west. A short distance further west beyond the landfill and MacArthur Blvd are the tidal waters and marshes of Upper Newport Bay. On the other side of the marsh, over Campus Drive to the east, is another part of the remnant San Joaquin Marsh complex, also owned by IRWD, where a "Wetlands Water Supply Project" and riparian mitigation bank have recently been constructed.

Project History: As more fully explained in the staff recommendation attached as Exhibit 2, the Conservancy has been working towards im-

plementation of this project since December 1989, when the Conservancy authorized disbursement of funds to the City of Irvine for preparation of a resource enhancement plan for the entire San Joaquin Marsh complex, in cooperation with the University of California and the IRWD. As that original planning effort progressed, the landowner's objectives for the two marsh properties diverged to the extent that they could not be accommodated under one plan. Therefore two plans were ultimately developed, with the San Joaquin Reserve Enhancement Plan reflecting the ecological and education goals of the University Reserve. On September 18, 1997, the Conservancy authorized disbursement of \$1,925,000 to implement Phase I of that plan. The final design and engineering drawings were subsequently prepared and permits will have been received by the scheduled construction date of July 15, 1999.

PROJECT SUPPORT: Financial support has been provided by the Wetlands Recovery Project and the League for Coastal Protection. In addition, letters of support have been received from the U.S. Fish and Wildlife Service, the California Coastal Commission, and the Sea & Sage Audubon Society, among others (Attachments to Exhibit 2).

**CONSISTENCY WITH
CONSERVANCY'S
ENABLING LEGISLATION:** The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation (Public Resources Code, Sections 31104 and 31251-31270).

Consistent with Section 31104, which provides that the Conservancy may receive donations from public and private sources, funding for the proposed project includes grants from the League for Coastal Protection, the Irvine and Clarke Foundation, and the San Joaquin Hills Transportation Corridor Authority.

Consistent with Section 31251, the Conservancy is awarding a grant for the purpose of enhancing the natural and scenic character of a coastal resource that is partly in and partly outside of the coastal zone. Implementation of the plan will correct problems associated with years of sedimentation and the absence of facilities to control water levels in the marsh, both of which have detrimentally affected habitat diversity and value.

Section 31252 provides that the area proposed for enhancement be identified as requiring public action to resolve existing or

potential resource protection problems. Consistent with that section, the proposed project would be undertaken on state land administered by the University of California Natural Reserve System which functions as a Trustee Agency of the State, mandated by the California Environmental Quality Act to protect and steward the natural resources of its Reserves to serve the public interest.

Consistent with Section 31253, the amount of proposed Conservancy funding for this project was determined by the total amount of funding available for coastal resource enhancement projects, the fiscal resources of project partners, and the urgency of the project relative to other eligible coastal resource enhancement projects.

**CONSISTENCY WITH
CONSERVANCY'S
PROGRAM GUIDELINES:**

This project meets the following criteria set forth in the Conservancy's resource enhancement program announcement:

Significance: The marsh habitats within the San Joaquin Marsh Natural Reserve are a critical component of southern California's coastal wetlands: They are one of a handful of freshwater marshes in the area which support the Pacific Flyway and they are among the few coastal wetlands remaining in Orange County. When restored they will also provide habitat for resident populations of sensitive species and other wildlife that use nearby Upper Newport Bay. In addition, implementation of the proposed project will augment wetland enhancement efforts surrounding the project area and result in a continuous block of revitalized habitat.

Urgency: The proposed authorization is essential if Phase I of the San Joaquin Reserve Enhancement is to be constructed this year. The current condition of the site is presently ideal for carrying out the project and all permits contemplate completion of the project in Fall 1999. A wet winter this year could either preclude construction at all next year, or require pumping the site dry which would add considerably to the project cost. Both the grantee and the University have distributed limited staff time to accommodate the construction this summer.

Cooperation and Support: The proposed project features the active involvement of two local nonprofit environmental groups as well as the University of California, and the University's Natural Reserve System. The Conservancy has a long-standing successful relationship with the Huntington Beach

Wetlands Conservancy, which initiated and implemented the Talbert Marsh Enhancement Project. The League for Coastal Protection, whose contribution of funds is critical to the project, has been a very effective advocate for coastal resources throughout Southern California. Each of these groups has worked independently for environmental protection in the region and the partnership forged by cooperating on this project will only increase their efficacy.

Scope: The benefits of the proposed project are far-reaching: As one of the few freshwater coastal wetlands in the Pacific Flyway, the expansion and maintenance of open water during the migratory season is of international significance; additional habitat will be provided for resident populations of sensitive wildlife, including the California gnatcatcher, the California least tern, and the Pacific pond turtle; the partial diversion of creek flows and associated sediments will reduce the amount of sediment reaching Upper Newport Bay; and the project greatly furthers the Natural Reserve System's mandate to act as public stewards of the site's natural resources.

Model: The plan for establishment of coastal sage scrub communities includes areas for both permanent restoration and experimental plots. The main emphasis for research will be development and refinement of successful restoration methods. While the UC has established several successful plantings on campus, re-creation of this habitat in other areas has had mixed results. Continued research into restoration techniques will make a vital contribution to the future of this sensitive coastal resource.

CONSISTENCY WITH

THE COASTAL ACT: Consistent with Section 31258, in a letter dated September 3, 1997 (Exhibit 3), the Coastal Commission determined that the San Joaquin Reserve Enhancement Plan Phase I is consistent with the policies and objectives of the Coastal Act.

CONSISTENCY WITH LOCAL COASTAL

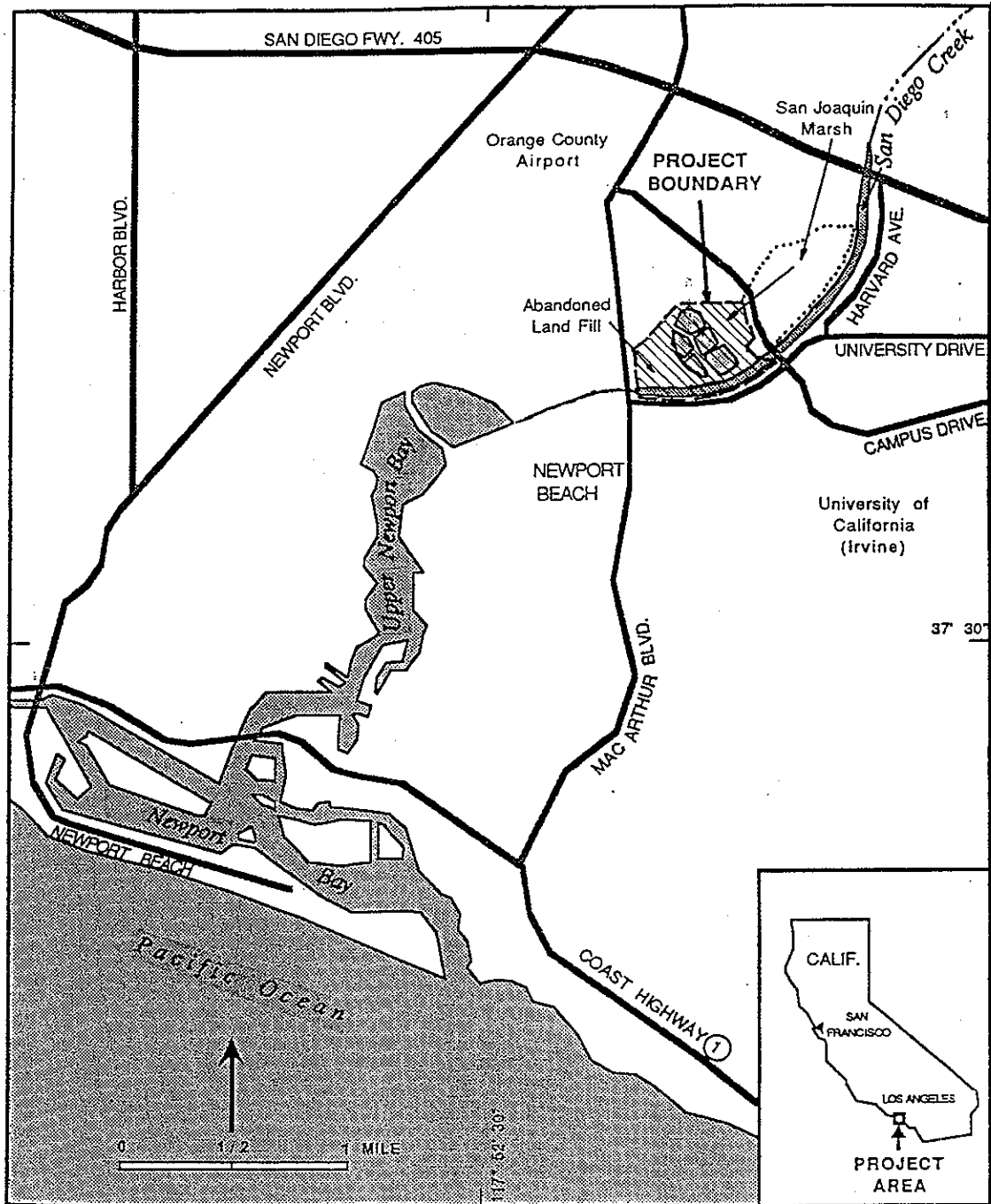
PROGRAM POLICIES: The proposed project is to be carried out within the San Joaquin Marsh Natural Reserve at the University of California, Irvine. Since it is a University property, the Reserve is not subject to local land use controls but is instead covered under the Irvine Campus' Long Range Development Plan (LRDP). The LRDP has not been certified, so the portion of the project area that lies within the coastal zone falls under the direct jurisdic-

tion of the Coastal Commission which, as indicated in Exhibit 3, has determined that the project is consistent with the policies and objectives of the Coastal Act. Application has also been made to the Coastal Commission for a Coastal Development Permit, which is scheduled for consideration at the Commission's June 1999 meeting.

COMPLIANCE

WITH CEQA: The proposed project consists of minor refinements to the budget and plan design evaluated in the Negative Declaration approved by the Conservancy on September 18, 1997. These refinements do not have the potential for a significant effect on the environment, and therefore the project remains consistent with the project analyzed in the September 18, 1997 Negative Declaration.

Figure 1: Site Location Map



Philip Williams & Associates, Ltd.
Consultants in Hydrology



Romberg Tiburon Centers
for Environmental Studies

COASTAL CONSERVANCY

Project Summary
September 18, 1997

SAN JOAQUIN RESERVE ENHANCEMENT, PHASE I

File No. 89-029
Project Managers: Reed Holderman/Patsy Heasly

RECOMMENDED ACTION: Approval of the Revised San Joaquin Marsh Enhancement Plan and negative declaration for Phase I, adoption of the mitigation monitoring program, and authorization to accept funds from the League for Coastal Protection and the Irvine and Clarke Foundation, and to disburse funds for implementation of Phase I of the plan.

LOCATION: San Joaquin Freshwater Marsh Reserve, University of California, Irvine (Exhibit 1).

PROGRAM CATEGORY: Resource Enhancement

ESTIMATED COST:	Coastal Conservancy	\$700,000
	League for Coastal Protection	700,000
	San Joaquin Hills Transportation Corridor Authority	400,000
	Irvine and Clarke Foundation	125,000
	U.C. Natural Reserve System	<u>In-kind services</u>
	TOTAL PROJECT COST	\$1,925,000
	NET CONSERVANCY COST	\$ 700,000

PROJECT SUMMARY: Implementation of the proposed project would represent long-awaited action on an enhancement planning effort originally initiated by the Conservancy in 1989. In the years since, the effort has weathered a change in both project participants and project boundaries and required revisions to the draft plan completed in 1991. The revised plan, the subject of this recommendation, would be carried out on the San Joaquin Freshwater Marsh Reserve, at the University of California, Irvine, and reflects the site's current habitat conditions and enhancement opportunities.

The proposed project is designed to restore some of the site's most important natural characteristics which have been significantly altered and degraded due to the effects of a century of agricultural and urban development in the wetlands and surrounding watersheds of the Reserve. The focus of Phase I is the development of a water supply and distribution system that would enable the Reserve manager to bring in supplemental water from San Diego Creek to maintain a diversity of seasonal and permanent wetland habitats. Other key elements of the pro-

posed project are: excavation and revegetation of degraded seasonal ponds, improvements to water outflow conditions, and establishment of coastal sage scrub and riparian habitats.

The biological significance of this freshwater wetland is magnified by its closeness to the extensive tidal marsh of Upper Newport Bay. Functioning freshwater and saltmarshes in close proximity have been found to exhibit higher biodiversity than isolated examples of either habitat type. The proposed enhancements will foster this ecological connection and result in numerous other benefits. The consistent supply of freshwater will be critical to birds migrating along the Pacific flyway and habitat will also be improved for a diversity of resident wildlife including the California gnatcatcher, the California least tern and the Pacific pond turtle. In addition, the water diversion system includes a sediment basin which will reduce sediment input into Upper Newport Bay, and the coastal sage scrub planting program provides for experimental plots which will advance the science of restoring this sensitive habitat. Further, there are a number of wetland enhancement projects currently underway on neighboring parcels, and implementation of the proposed project now provides an opportunity to heighten the environmental benefits of both the proposed project and the surrounding efforts.

The project has the active support of two local nonprofit organizations, the League for Coastal Protection (LCP) and the Huntington Beach Wetlands Conservancy (HBWC), as well as the University of California and the University Natural Reserve System. The Conservancy has long-standing working relationships with both the University and the HBWC and has observed LCPs excellent advocacy on behalf of coastal resources over the years. The HBWC has demonstrated both its commitment and its abilities in managing coastal resource projects, through its critical roles in the Talbert Marsh Enhancement Project and a recently completed wildlife care center. It is an ideal local partner for managing construction of the proposed project.

Proposed funds for the project include two Conservancy special deposit accounts: 1) the Gnatcatcher Habitat Improvement Fund, established through a grant from the San Joaquin Hills Transportation Corridor Authority (TCA), and the San Joaquin Marsh Enhancement Fund, established by a grant from the Irvine and Clarke Foundation (ICF). The TCA funds were accepted by the Conservancy on May 21, 1993 and are to be used for the improvement of gnatcatcher habitat in the vicinity of the San Joaquin Hills toll road. The ICF funds were placed in a special project account in March, 1992 with the intent of recommending acceptance and disbursement when an appropriate project was developed. In addition, the League for Coastal Protection has also offered an extremely generous donation.

The availability of these very substantial private contributions makes this project a unique opportunity.

COASTAL CONSERVANCY

Staff Recommendation
September 18, 1997

SAN JOAQUIN RESERVE ENHANCEMENT, PHASE I

File No. 89-029

Project Managers: Reed Holderman/Patsy Heasley

STAFF

RECOMMENDATION: Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251-31270 and 31104 of the Public Resources Code:

"The State Coastal Conservancy hereby approves the Revised San Joaquin Marsh Enhancement Plan and negative declaration for Phase I attached respectively as Exhibits 3 and 4 to the accompanying staff recommendation; adopts the mitigation monitoring program attached as Exhibit 6 to the accompanying staff recommendation; and authorizes: 1) the acceptance of seven hundred thousand dollars (\$700,000) from the League for Coastal Protection; 2) the acceptance of one hundred thousand dollars (\$100,000) plus accrued interest from the Irvine and Clarke Foundation; and 3) the disbursement of an amount not to exceed one million, nine hundred twenty-five thousand dollars (\$1,925,000) to the Conservancy, the Huntington Beach Wetlands Conservancy (HBWC) and the University of California Natural Reserve System (UCNRS), to implement Phase I of the plan, subject to the following conditions:

1. Prior to the disbursement of any funds, the Coastal Commission shall determine that Phase I of the Revised San Joaquin Marsh Enhancement Plan is consistent with the policies and objectives of the Coastal Act;
2. Prior to the disbursement of any funds for project construction, the Executive Officer of the Conservancy shall approve, in writing, a final work program, budget, schedule, construction drawings, and any contractors or subcontractors that the HBWC intends to employ to implement Phase I of the enhancement plan; and the Executive Officer shall be satisfied that all permits and approvals necessary to implement this project have been obtained and fulfilled;
3. The UCNRS or its designee, shall agree to: 1) implement project mitigation measures identified in Exhibit 6; and 2) operate and maintain the project and its improvements for not less than 20 years and to pro-

vide for project monitoring for not less than 10 years;
and

4. Prior to any disbursement of funds for monitoring, the Executive Officer shall approve in writing, a monitoring program, budget, schedule and approve any contractors the UCNRS intends to employ to carry out project monitoring."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that

1. The proposed project is consistent with the purposes and criteria set forth in Chapter 6 of the Public Resources Code (Sections 31251-31270) regarding the enhancement of coastal resources;
2. The proposed project is consistent with section 31104 of the Public Resource Code regarding the ability of the Conservancy to accept financial support from private sources;
3. The proposed project is consistent with the guidelines and criteria set forth in the Conservancy's Resource Enhancement Program Announcement as amended June 24, 1994;
4. The need for public protection and stewardship of San Joaquin Marsh has been evidenced through its designation as a University of California Natural Reserve;
5. The Conservancy has reviewed the Initial Study and proposed Negative Declaration for Phase I of the Revised San Joaquin Marsh Enhancement Plan, attached to the accompanying staff recommendation as Exhibit 4, and finds that there is no substantial evidence that the project as mitigated, will have a significant effect on the environment as defined in 14 California Code of Regulations Section 15382; and
6. The HBWC is a nonprofit organization existing under Section 501(c)(3) of the United States Internal Revenue Code, having among its principal charitable purposes the preservation of land for scientific, historic, educational, recreational, agricultural, scenic or open-space opportunities."

STAFF DISCUSSION:

Project Description: The proposed project is an enhancement of the marsh, seasonal wet meadow, riparian woodland and coastal sage scrub habitats within the San Joaquin Freshwater Marsh Reserve at the University of California, Irvine. In the century preceding establishment of the Reserve, the marsh and adjacent uplands were subjected to numerous and extensive alterations: imported fill and the construction of dikes enabled agricultural production onsite, later the fill was dredged and more dikes were built for the creation of duck-hunting ponds, the site was cut off from both tidal influences and its natural freshwater source, and the radically altered hydrological regime along with the introduced, disturbed soils damaged the wetland system and fostered the establishment of exotic plant communities. Implementation of the Reserve enhancement plan would begin to reverse these damages and significantly improve the habitat value of one of the few freshwater marshes in southern California. The objectives of the project are to provide a self-sufficient water supply system for the marsh and adjacent habitats, increase and improve habitat characteristics of the historical natural gradient at the site, and provide University research, teaching and public outreach opportunities.

The enhancement of San Joaquin Freshwater Marsh Reserve has been designed to proceed in two phases. Phase I is the subject of this recommendation, and its principal components as described below, consist of: establishing a water supply and distribution system that enables management of water levels according to habitat needs; excavating silted-in seasonal ponds; and restoring native coastal sage scrub and riparian habitat along the Reserve margins. Implementation of Phase II, which consists of restoring a series of wet meadow ponds and connecting channels in an adjacent portion of the marsh, would require a separate environmental evaluation and consideration by the Conservancy at a future date.

Phase I

Water Supply

A major constraint to management of the marsh has been the lack of a reliable water supply that can be controlled to sustain a variety of habitat types. In the absence of such a system, vegetation invades open water habitats, accelerating the accumulation of organic debris and the filling-in of an important habitat. A water management system will allow sufficient water depths to be maintained in the ponds during critical periods of the year, to prevent encroachment of vegetation.

The water source for the marsh will be direct precipitation and runoff, supplemented as needed with San Diego Creek water. Depending on water levels in the marsh and the height of creek flows, water would be diverted from the creek either by gravi-

ty or by pumping. Water from the creek would pass through a sedimentation basin and then a main distribution pipeline connected to the ponds by gates. Installation of this system will involve: placement of new culverts and pipes through the San Diego Creek flood control channel levee; construction of a pump station and sediment control basin; installation of a water distribution pipeline on the dike which forms the eastern boundary of the seasonal ponds; and placement of water control structures between the ponds. Construction of this system will enable the preservation of vegetated, open water, and mudflat habitats.

It should be noted that in the course of project development, the Irvine Ranch Water District (IRWD) proposed the reclaimed wastewater generated by their neighboring treatment plant, as an alternate source of water. However, the quality of that water was a significant issue during the permitting process for IRWD's Wetlands Water Supply Project, which involved discharges into San Diego Creek. The discharge was permitted on an experimental basis, but there are lingering concerns among local jurisdictions regarding its downstream effects. In light of this issue, staff, the UCNRS, and project consultants agreed that securing an independent water source was preferable to using the treated wastewater.

Seasonal Pond Restoration

Seasonal pond and marsh habitats now occur on a part of the Reserve that has been altered extensively, having been used for crop production and then converted to flooded impoundments for duck hunting in the decades before creation of the Reserve. Over the years they have also been subject to sedimentation and the expansion of plant growth into formerly open water areas. Plan elements aimed at restoration and enhancement of these habitats include the removal of unneeded fill dikes and excess sediment deposits in key seasonal pond areas; and improvement of water control dikes and control gates between the ponds to maintain restored habitats.

Upgrading Reserve Outflow Culverts

Installation of automatic control valves on existing structures, and removal of sediment deposits at the southwestern corner of the Reserve will allow the Reserve manager to control the outflow of water, an indispensable component of the overall water management and distribution system.

Restoration and Creation of Native Vegetative Communities

Native coastal sage scrub habitat, gradually destroyed by grazing and dryland barley farming, will be restored to the northern edges of the marsh, and the exotic plant community that has become established on the artificial substrate of dams

and dikes will be replaced with native plant communities. This work will include eradication of non-native exotic vegetation, and planting of both propagated and salvaged species of upland coastal sage scrub vegetation. Both permanent and experimental plots will be established by University faculty and students, with some areas planted over a period of years as determined by the success of previous plantings. In addition, a riparian corridor will be planted along the edge of the former landfill.

Since its inception in 1986, for the purpose of protecting and enhancing the Talbert Marsh, the Huntington Beach Wetlands Conservancy has continued to be actively involved in protection of coastal resources. Earlier this year, the HBWC rescued and cleaned scores of oiled seabirds, as it opened the doors of a wildlife care center built and staffed entirely through the HBWC's own initiative. The group's interest in and commitment to implementation of the proposed project is a natural progression in pursuit of its mission to restore and manage wetland resources in the local region. In addition, its record of accomplishment makes the HBWC an ideal partner for managing construction of the project.

Project Financing: Funding for the proposed project would come from four sources: the Conservancy, the League for Coastal Protection, San Joaquin Hills Transportation Corridor Authority (SJHTCA) and the Irvine and Clarke Foundation. The Conservancy's contribution would constitute less than half of the Phase I project cost, with a local nonprofit organization, the League for Coastal Protection, providing an equal match. Special deposit funds dedicated by the Irvine and Clarke Foundation for enhancement of San Joaquin Marsh and by the SJHTCA for restoration of coastal sage scrub habitat would also be drawn upon. In addition, the UC Natural Reserve will continue to contribute in-kind services regarding several important aspects of project development and implementation including, project design, preparation of environmental documents, construction supervision and long-term operation and maintenance.

Funding Sources for Phase I Construction

Coastal Conservancy	\$700,000
League for Coastal Protection	700,000
San Joaquin Hills Transportation Corridor Authority	400,000
Irvine and Clarke Foundation	125,000
U.C. Natural Reserve System	<u>In-kind services</u>
TOTAL PROJECT COST	\$1,925,000

Tentative Budget

Negotiations are pending regarding which project elements would be most appropriately carried out by each grantee, but staff expects project funds to be budgeted as presented in Exhibit 2 of this recommendation.

Site Description: The proposed project would be carried out on the San Joaquin Freshwater Marsh Reserve at the University of California, Irvine. The site contains approximately 202 acres of remnant wetlands that were once part of an extensive marsh system formed by the Santa Ana River, San Diego Creek and Upper Newport Bay. It is among the largest of the few freshwater wetlands in southern California and provides vital habitat to wintering and migrating birds as well as a variety of resident and local species. The University administers the reserve for academic and public purposes as a natural laboratory of wetland habitats for University level teaching, study, and scientific research and for public outreach including k-12 classes and guided tours.

Within the Reserve are perennial and seasonal fresh to brackish water marsh and ponds, riparian, and coastal sage scrub habitats. The seasonal ponds are contained within a series of dikes put in place in the 50s and 60s by local duck clubs. Formerly these ponds would dry out in the early spring and support a wet meadow of seasonal grasses and herbs, however in recent years marsh plants have persisted year round and advanced into the area where water used to pond. In addition, several culverts between the ponds have collapsed or become clogged reducing the potential for floodwaters to reach the ponds. The amount of open water in the historically permanent ponds has also been significantly reduced due to siltation and the subsequent spreading of emergent plants.

The pond areas are surrounded by more than 100 acres of predominantly freshwater marsh vegetation. A dense growth of riparian shrubs and trees has developed on the levees separating the seasonal ponds and along the margin of the Reserve. Also on the San Diego Creek levee adjacent to the marsh is an area of successful experimental coastal sage scrub plantings. In addition to these habitats, southwest of the ponds, there is a 6-acre mitigation site of open water, marsh, and riparian scrub habitats, constructed by a private entity on property also owned and managed by the University.

The project area is surrounded by the UC Irvine campus to the north, Campus Drive and a riparian mitigation area owned by the Irvine Ranch Water District (IRWD) to the east, the leveed San Diego Creek to the south, and a capped landfill to the west. A short distance further west beyond the landfill and MacArthur Blvd are the tidal waters and marshes of Upper Newport Bay. On the other side of the marsh, over Campus Drive to the east, is another part of the remnant San Joaquin Marsh complex, also owned by IRWD, where a "Wetlands Water Supply Project" and riparian mitigation bank are being constructed.

Project History: In December 1989, the Conservancy authorized disbursement of funds to the City of Irvine for preparation of a resource enhancement plan for the San Joaquin Marsh, in cooperation with

the University of California and the IRWD. A draft plan for the entire marsh, which included the UC Natural Reserve and IRWD property to the east, was completed in 1991. It was never brought before the Conservancy for approval, because at that point it became clear that IRWD's goals for its portion of the marsh would be more appropriately implemented through an independent planning process. Working with the City, IRWD subsequently developed a separate plan for their side of the marsh, the Wetlands Water Supply Project (WWSP). This project would alternately route reclaimed water and San Diego Creek water through a series of recontoured duck ponds to provide open water habitat and improved water quality. The demonstration phase of this project is currently underway. In addition, IRWD is developing and managing a riparian mitigation bank on the land adjacent to the WWSP to the east.

In the meantime, staff continued to work with the University Natural Reserve System (UCNRS) to explore ways of enhancing habitat values within the Reserve. In 1995, a biological assessment was conducted to evaluate changes in vegetation for the purpose of revising the 1991 plan. The subsequently revised plan, which is the subject of this recommendation, reflects both changes in ownership and shifts in habitat types. The original objectives of increasing the area of seasonally flooded and riparian habitats, establishing semipermanent streams, and enhancing habitat diversity remain central to the revised plan. In addition, the revised plan also describes a self-sufficient and sustainable method of supplying and distributing water to the reserve, and includes plans for establishing both experimental and permanent areas of coastal sage scrub.

PROJECT SUPPORT: The proposed project has broad support from local and state organizations (Exhibit 5).

**CONSISTENCY WITH
CONSERVANCY'S
ENABLING LEGISLATION:** The proposed project would be undertaken pursuant to Chapter 6 of the Conservancy's enabling legislation (Public Resources Code, Sections 31104 and 31251-31270).

Consistent with Section 31104, which provides that the Conservancy may receive donations from public and private sources, funding for the proposed project includes grants from the League for Coastal Protection, the Irvine and Clarke Foundation, and the San Joaquin Hills Transportation Corridor Authority.

Consistent with Section 31251, the Conservancy is awarding a grant for the purpose of enhancing the natural and scenic character of a coastal resource that is partly in and partly outside of the coastal zone. Implementation of the plan will correct problems associated with years of sedimentation and

the absence of facilities to control water levels in the marsh, both of which have detrimentally affected habitat diversity and value.

Section 31252 provides that the area proposed for enhancement be identified as requiring public action to resolve existing or potential resource protection problems. Consistent with that section, the proposed project would be undertaken on state land administered by the University of California Natural Reserve System which functions as a Trustee Agency of the State, mandated by the California Environmental Quality Act to protect and steward the natural resources of its Reserves to serve the public interest.

Consistent with Section 31253, the amount of proposed Conservancy funding for this project was determined by the total amount of funding available for coastal resource enhancement projects, the fiscal resources of project partners and the urgency of the project relative to other eligible coastal resource enhancement projects.

**CONSISTENCY WITH
CONSERVANCY'S
PROGRAM GUIDELINES:**

This project meets the following criteria set forth in the Conservancy's resource enhancement program announcement:

Significance: The marsh habitats within the San Joaquin Marsh Natural Reserve are a critical component of southern California's coastal wetlands: they are one of a handful of freshwater marshes in the area which support the Pacific Flyway and they are among the few coastal wetlands remaining in Orange County. When restored they will also provide habitat for resident populations of sensitive species and other wildlife that use nearby Upper Newport Bay. In addition, implementation of the proposed project will augment wetland enhancement efforts surrounding the project area and result in a continuous block of revitalized habitat.

Urgency: There are a number of planning and resource enhancement efforts underway in the immediate vicinity of the proposed project, including the Irvine Ranch Water District's wetland water supply and marsh mitigation projects on the neighboring parcel, a mitigation project within the Reserve that is just beginning to provide value as wetland habitat, and the San Diego Creek watershed planning effort to which the Conservancy contributed funds in September 1996. By implementing the proposed project now, the ecological benefits of all the individual projects will be greatly increased, and the watershed planning effort will be infused with an additional level of significance and momentum.

Cooperation and Support: The proposed project features the active involvement of two local nonprofit environmental

groups as well as the University of California, and the University's Natural Reserve System. The Conservancy has a long-standing successful relationship with the Huntington Beach Wetlands Conservancy, which initiated and implemented the Talbert Marsh Enhancement Project. The League for Coastal Protection, whose contribution of funds is critical to the project, has been a very effective advocate for coastal resources throughout southern California. Each of these groups has worked independently for environmental protection in the region and the partnership forged by cooperating on this project will only increase their efficacy.

Scope: The benefits of the proposed project are far-reaching: as one of the few freshwater coastal wetlands in the Pacific Flyway, the expansion and maintenance of open water during the migratory season is of international significance; additional habitat will be provided for resident populations of sensitive wildlife, including the California gnatcatcher, the California least tern and the Pacific pond turtle; the partial diversion of creek flows and associated sediments will reduce the amount of sediment reaching Upper Newport Bay; and the project greatly furthers the Natural Reserve System's mandate to act as public stewards of the site's natural resources.

Model: The plan for establishment of coastal sage scrub communities includes areas for both permanent restoration and experimental plots. The main emphasis for research will be development and refinement of successful restoration methods. While the UC has established several successful plantings on campus, re-creation of this habitat in other areas has had mixed results. Continued research into restoration techniques will make a vital contribution to the future of this sensitive coastal resource.

**CONSISTENCY WITH
THE COASTAL ACT:**

The proposed project is consistent with the following policies and objectives of the Coastal Act:

Section 30210, which states that "... recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights ... and natural resource areas from overuse." The proposed project will be carried out within a University of California Natural Reserve, which will continue to provide controlled access for the purposes of University study, teaching and scientific research, and public outreach.

Section 30231, which provides that "the biological productivity and the quality of coastal waters, streams, wetlands, estuaries and lakes appropriate to maintain optimum populations of marine organisms ... shall be maintained, and where feasible, restored through, among other means, ... preventing depletion of groundwater supplies and substantial interference with

surface water flow." The project is consistent with this section in that the biological value of the freshwater coastal wetlands will be improved in a manner that does not require use of groundwater and which involves only minor seasonal diversions of San Diego Creek.

Section 30233, which states that "the diking, filling or dredging of open coastal water, 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: . . . (7) Restoration purposes." The proposed project involves excavation of sediment-filled seasonal ponds and drainage areas for the exclusive purpose of restoring habitat values. There is no alternative that would achieve this purpose and mitigation measures have been incorporated to avoid potentially adverse environmental effects.

Section 30240, which states that "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values. . . ." Restoration and enhancement of onsite wetland habitats will necessarily involve temporary construction-related disturbance. Although this disturbance is short-term in nature, will occur during the dry season, and affects degraded habitats, mitigation measures have been incorporated into the project to ensure that this disturbance does not result in a significant adverse impact.

**CONSISTENCY WITH
LOCAL COASTAL
PROGRAM POLICIES:**

The proposed project is to be carried out within the San Joaquin Marsh Natural Reserve at the University of California, Irvine. Since it is a University property, the Reserve is not subject to local land use controls but is instead covered under the Irvine Campus' Long Range Development Plan (LRDP). The LRDP has not been certified, so the portion of the project area that lies within the coastal zone falls under the direct jurisdiction of the Coastal Commission, who will evaluate the project's consistency with the Coastal Act. Staff's assessment of consistency is provided in the previous section of this recommendation, however prior to disbursement of any funds, the Coastal Commission shall determine that the project is consistent with the policies and objectives of the Coastal Act.

**COMPLIANCE
WITH CEQA:**

In April 1997, staff prepared and circulated a draft Negative Declaration for Phase I of the Revised San Joaquin Marsh Enhancement Plan (contained in Appendix B of Exhibit 4). A number of comments were received, largely focused on a few major subjects: the design of the water intake structure, the volume and timing of water withdrawals, the hydrological

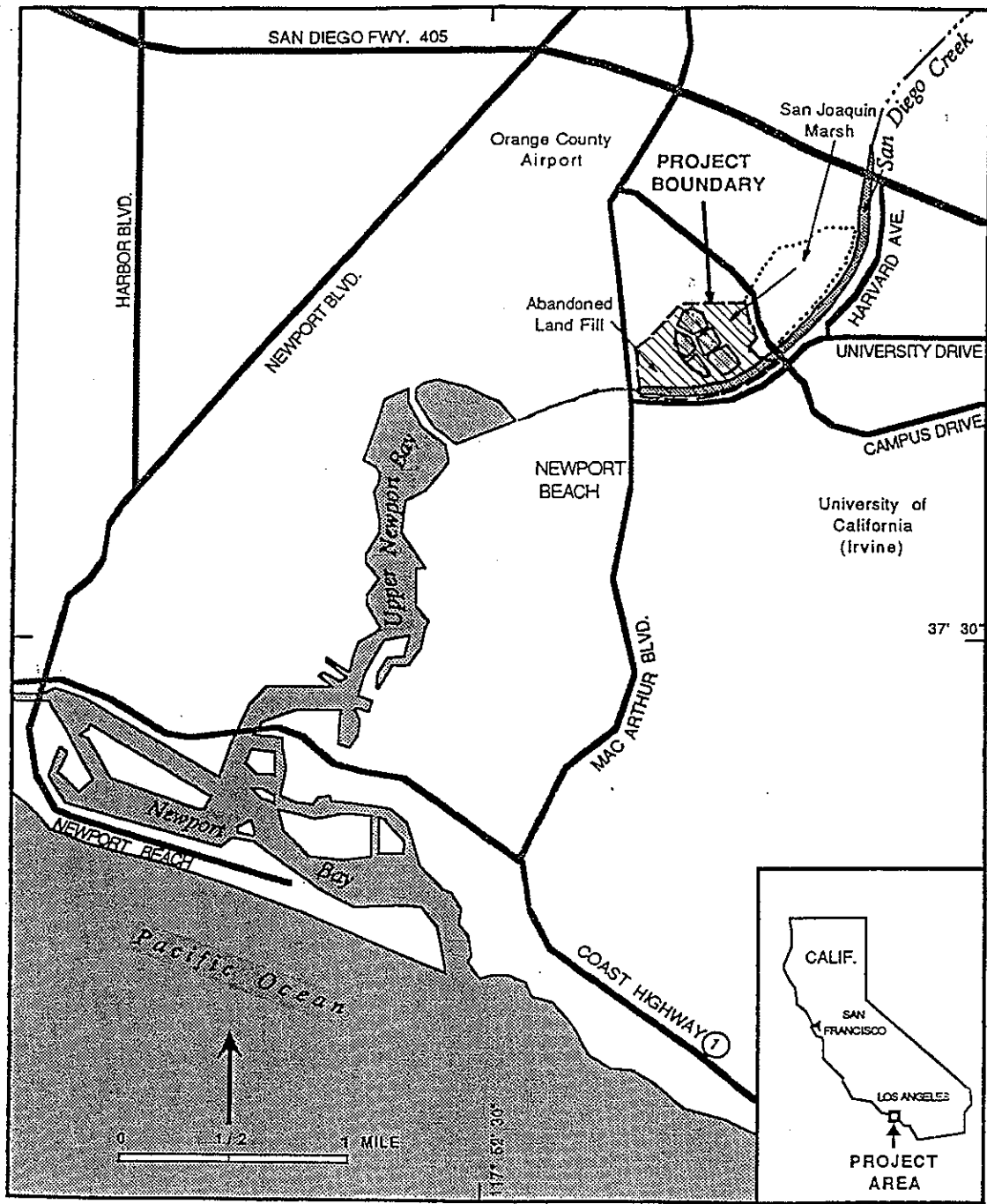
relationship between the proposed project and IRWD's wetland water supply project, the project's potential effects on rare and endangered species, and the project's potential for fostering mosquito breeding. Staff's evaluation of these comments found that the project would result in no significant impacts associated with hydrology or water quality, or to federally or state listed species, nor would it confound mosquito control efforts. However, staff also took the following steps to address the concerns raised: The project description was amended to include a more detailed explanation of the water intake structure and the water management system as well as an estimate of water volumes to be withdrawn. In addition, issues raised by regulatory agencies were resolved through phone conversations and a field meeting. All comments were addressed with a specific written response (contained in Appendix B of Exhibit 4). And finally, a new Initial Study was prepared and recirculated, with the revised draft Negative Declaration, the amended plan, and the response to comments (Exhibits 3 and 4).

The comment period for the recirculated Negative Declaration closed on August 28, 1997. Comment letters and staff responses are included in Appendix A of the draft Negative Declaration. With the exception of comments made by the California Department of Fish and Game (CDFG) and the Orange County Planning and Development Service (OCPDS), these letters introduced no new environmental issues. Precautions recommended by CDFG and OCPDS to avoid potential management impacts to nesting birds, and construction related impacts to the Southwestern pond turtle, a Species of Special Concern, and to users of the Regional Santa Ana Heights Riding and Hiking Trail have been incorporated into the Discussion of Environmental Evaluation section of the draft Negative Declaration and are summarized in Exhibit 6 of this recommendation. With the incorporation of these measures, staff believes that the project will have no significant effect in accordance with 14 California Code of Regulations Section 15370.

Staff recommends that the Conservancy approve the draft Negative Declaration, and find that the project, as mitigated, will not have a significant effect on the environment. Upon approval, staff will file a Notice of Determination for the Negative Declaration.

In accord with Public Resources Code Section 21081.6, staff proposes adoption of a CEQA mitigation monitoring program, attached as Exhibit 6 to this staff recommendation. This mitigation/monitoring program describes measures that will be taken to avoid potential management impacts to nesting birds and construction related impacts to the Southwestern pond turtle, a Species of Special Concern, and users of the Regional Santa Ana Heights Riding and Hiking Trail.

Figure 1: Site Location Map



Philip Williams & Associates, Ltd.
Consultants in Hydrology



Romberg Tiburon Center
for Environmental Studies

Exhibit 2

Tentative Project Budget

Task	Estimated Cost	Funding Source	Responsible Party
Secure final design and engineering specifications, and construction permits	\$350,000	ICF, Conservancy, UCNRS in-kind	Conservancy
Construction	\$1,425,000	LCP, Conservancy, SJHTCA	HBWC
10 year Monitoring	\$150,000	SJHTCA, Conservancy, UCNRS in-kind	UCNRS
Operation and Maintenance, at least 20 yr	Not estimated	UCNRS in-kind	UCNRS

HBWC - Huntington Beach Wetlands Conservancy

ICF - Irvine and Clarke Foundation

LCP - League for Coastal Protection

SJHTCA - San Joaquin Hills Transportation Corridor Authority

UCNRS - University of California Natural Reserve System

EXHIBIT 3

San Joaquin Marsh Enhancement Plan

Distributed to Board Members only

EXHIBIT 4

Initial Study and proposed Negative Declaration

Distributed to Board Members only

EXHIBIT 5

Letters of Support

Additional letters will be hand-carried to the Board Meeting.

LEAGUE FOR COASTAL PROTECTION

August 25, 1997

California State Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, CA 94612-2530

RECEIVED

AUG 27 1997

COASTAL CONSERVANCY
OAKLAND, CALIF

OFFICE OF THE CHAIRPERSON

Melvin L. Nutter
200 Oceangate, Suite 440
Long Beach, CA 90802-4332
(562) 432-8715
(562) 491-0907 (Fax)

Attn: Patricia A. Heasley, Project Manager

Re: San Joaquin Reserve Enhancement, Phase I

Dear Conservancy Board Members:

BOARD OF DIRECTORS

Melvin L. Nutter, *Chairperson*
Lois Ewen, *Vice Chairperson*
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Moe Stavnezer
Robert Sulnick
Lucille Vinyard

Zad Leavy, *General Counsel*

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The Honorable
Anthony Beilenson

Melvin B. Lane

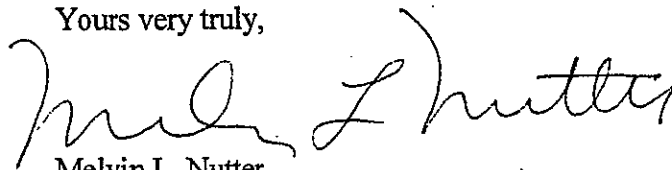
On behalf of the League for Coastal Protection I write to urge you to approve funding for Phase I of the San Joaquin Reserve Enhancement Project. The League cannot overemphasize the importance of Southern California's wetland and the need to improve those wetland resources that still remain.

The League is pleased that it is in a position to contribute \$700,000.00 toward this project. It will do so if the Conservancy Board approves the revised enhancement plan for the San Joaquin Marsh together with the balance of the funding required for the project.

Because wetland enhancement and restoration are so important, the League insists that its funds be used for restoration of the designated project wetlands. This will confirm the League's understanding with your staff that the funds will be used exclusively for planning such wetland restoration, the subsequent physical work related thereto, and monitoring to evaluate success.

We are happy to see that our contribution will be combined with other funding to help make this a truly significant project. Once again, the League asks the Board to approve the proposal.

Yours very truly,


Melvin L. Nutter
Chairperson

MLN/cc



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services

Carlsbad Field Office

2730 Loker Avenue West

Carlsbad, California 92008

AUG 21 1997

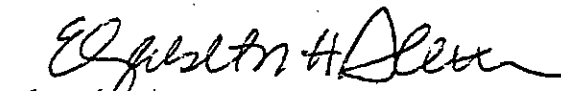
Mr. Bill Bretz
Office of Natural Reserves
University of California
Irvine, CA 92697-1459

Re: San Joaquin Marsh Enhancement Project

Dear Mr. Bretz:

The Fish and Wildlife Service has reviewed your Enhancement Plan for the University's portion of San Joaquin Marsh. The Service has been coordinating with you on the development of this plan and supports this project. The Service is committed to work with you throughout the planning and implementation of this project in order to ensure that there is no impacts to sensitive and listed species. We feel that this project will improve the wildlife resources within this portion of the marsh and commend you on your efforts. If you have any questions regarding this letter please contact Ms. Susan Wynn at (760) 431-9440.

Sincerely,


Gail C. Kobetich
Field Supervisor

cc: Corps (attn: M. Sudol)
Coastal Conservancy (attn: R. Holderman)

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AUG 25 1997

COASTAL CONSERVANCY
C/O LAND MANAGEMENT

UNIVERSITY OF CALIFORNIA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

OFFICE OF THE VICE PRESIDENT—
AGRICULTURE AND NATURAL RESOURCES

OFFICE OF THE PRESIDENT
Division of Agriculture and Natural Resources
300 Lakeside Drive, 6th Floor
Oakland, California 94612-3360

September 2, 1997

Robert C. Kirkwood, Chairman
State Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, California 94612

Re: San Joaquin Reserve Enhancement, Phase 1

Dear Chairman Kirkwood:

On behalf of the University of California Natural Reserve System, I am writing to express our sincere appreciation for the State Coastal Conservancy's assistance in preparing the San Joaquin Marsh Enhancement Plan. The dollar amount the Conservancy has provided to date is significant and very much appreciated, as is the very positive leadership role and tremendous technical support your staff have provided. The Conservancy's past support has been key to the successful preparation of the plan. We are grateful you are considering providing further planning and construction funds, as this support would enable our implementation of a stellar resource enhancement project.

The marsh is one of the treasured resources within the University's Natural Reserve System, a collection of 33 reserves established for university-level teaching, research and public service programs. San Joaquin Marsh is owned and managed by the University but, as with most of our reserves, we must rely on financial support from other state, local and private entities for its restoration. Our program could not exist without the monetary and technical support provided by these other involved entities.

The marsh is a unique remnant of what was once an extensive marsh system in the Upper Newport Bay region. It provides valuable marsh, riparian and upland habitat and, because of its proximity to the Irvine campus, is used for research and teaching programs. Research conducted at the reserve benefits other coastal systems throughout the state. For example, recent research conducted on the uplands at the marsh has established new and far more successful techniques for coastal sage scrub restoration, a habitat of critical concern to state resource agencies. University-trained graduates who gain first-hand experience at the marsh in water quality, biology, and restoration issues have gone on to become the state's decision-makers. The marsh is also available for public tours, and is used extensively by K-12 classes. University faculty have prepared comprehensive teaching guides for the marsh to enable and encourage elementary school teachers to lead classes at the reserve.

As this project proceeds, the University looks forward to continuing its relationship with the Conservancy and collaborating with the Huntington Beach Wetlands Conservancy, one of the finest and most experienced local nonprofits involved in marsh restoration in the state. I believe the financial commitment to this project by the other project sponsors, most notably the League

Robert C. Kirkwood
September 2, 1997
Page 2

for Coastal Protection, speaks to their confidence in the ability of this team to implement an effective enhancement project. I am certain this partnership will result in improved marsh, coastal sage scrub and riparian habitats, as well as enhanced public research and educational opportunities far into the future.

Again, thank you for your past support, and for your consideration of funding for Phase 1 of the San Joaquin Marsh enhancement project.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Riddle", with a long, sweeping horizontal line extending to the right.

Elizabeth Riddle
Acting Director
Natural Reserve System

cc: William Bretz, Reserve Manager
Gary Gorman, Huntington Beach Wetlands Conservancy
Melvin Nutter, League for Coastal Protection

UNIVERSITY OF CALIFORNIA, IRVINE

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CAMPUS & ENVIRONMENTAL PLANNING

IRVINE, CALIFORNIA 92717

September 3, 1997

VIA FAX & U.S. MAIL

Reed Holderman
California Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612
FAX (510) 286-0470

Dear Mr. Holderman:

The UCI Office of Campus and Environmental Planning has reviewed the proposed project and Negative Declaration ("Project Documents"). Our office is supportive of this project and looks forward to working with the Coastal Conservancy and the UC Natural Reserve System (UCNRS) in implementing this plan. The proposed project is consistent with the UCI Long Range Development Plan (LRDP) and UCI open space planning objectives, including the UCI Green and Gold Plan which identifies campus landscape values, objectives, and priorities.

As the conceptual plans included in the Project Documents proceed into more specific planning, design, and implementation, it is important that all aspects of the project be closely coordinated with UCI staff. This will serve to ensure that this project is consistent with the mission related objectives of the LRDP, UCI implementation of the NCCP program, and other UCI planning objectives. In addition, UCI would need to review and approve any improvements on UCI property.

The marsh buffer area, landfill buffer, and other areas directly adjacent to UCI's North Campus property will require particular attention in order to balance multiple planning objectives. Revegetation, upland habitat management, slope stabilization, wildland fire management, and compatibility with future North Campus development plans must be carefully balanced in this planning. UCI and the County of Orange are currently involved in multiple regulatory programs related to the landfill site that also must be coordinated with the proposed project.

The project boundaries identified on the conceptual drawings included in the Project Documents need to be clarified. As you proceed with this planning process, we would recommend the development of a more detailed project map which includes the existing boundaries of the Marsh, UCI property, and U.S. Food and Drug Administration property; the ultimate right-of-way for Campus Drive; and other jurisdictional boundaries and easements.

UCI is particularly interested in working cooperatively with the Coastal Conservancy in pursuing native landscaping and revegetation programs for the UCI landfill site and other areas adjacent to the San Joaquin Marsh. Cooperative efforts resulting in native landscaping of these areas would serve multiple planning objectives of UCI and the UCNRS.



DISTRICT OFFICE:

13001 GARDEN GROVE BOULEVARD
GARDEN GROVE, CALIFORNIA 92843
PHONE: (714) 971-2421

MAILING ADDRESS:

P.O. BOX 87
SANTA ANA, CA 92702
FAX: (714) 971-3940



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LARRY A. HERMAN
VICE-PRESIDENT:
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SECRETARY:
KARL H. FANNING

September 2, 1997

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COSTA MESA
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LAKE FOREST
JEAN D. JAMBON
LA PALMA
LARRY A. HERMAN
LOS ALAMITOS
ALICE JEMPSA
MISSION VIEJO
SYD GORDON
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FRANK FRY, JR.
YORBA LINDA
BARBARA W. KILEY
COUNTY OF ORANGE
R. PAUL WEBB
DISTRICT MANAGER
GILBERT L. CHALLET

Mr. Reed Holderman
Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, California 94612

Dear Mr. Holderman:

I have reviewed the comments and have spoken to Dr. Bretz regarding my concerns on the San Joaquin Reserve Enhancement Project.

I am confident that the project as described will meet the objectives of Orange County Vector Control District. The control of mosquitoes and wildlife enhancement are common goals.

Sincerely,

Lawrence H. Shaw
Vector Control Specialist

LHS/vb



Cal/EPA

**Santa Ana
Regional Water
Quality Control
Board**

3737 Main Street
Suite 500
Riverside, CA 92501-
3339
(909) 782-4130
FAX (909) 781-6288

September 11, 1997

Robert C. Kirkwood, Chair
California State Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, CA 94612-2530

**UNIVERSITY OF CALIFORNIA NATURAL RESERVE SYSTEM-SAN JOAQUIN
MARSH RESERVE ENHANCEMENT PLAN**

Dear Mr. Kirkwood:

This letter is in response to your staff's August 21, 1997 request for our assessment of the enhancement plan for the UCNRS San Joaquin Marsh Reserve, which will be considered by the Conservancy board on September 18, 1997.

Based on our review of the project, and discussions between Regional Board staff and UCNRS staff, we believe that the proposed project will result in a net increase in wetland acreage and habitat value and provide valuable enhancement of the beneficial uses of the San Joaquin Marsh. Furthermore, with the diversion of San Diego Creek through the marsh, we believe the enhancement project will also help to remove nutrients in San Diego Creek, resulting in a reduction in the nutrient loading to Newport Bay. Water quality certification from the Regional Board in compliance with Section 401 of the Clean Water Act will be required prior to project implementation. Based on our review of the enhancement plan and negative declaration we believe that any project impacts would be sufficiently mitigated.

Please call Ken Thiesen at (909) 320-2028 if you have any further questions about this matter.

Sincerely,

Gerard J. Thibeault
Executive Officer

kjt/ccltrucl.doc



Pete Wilson
Governor

RECEIVED

SEP 15 1997

COASTAL CONSERVANCY
OAKLAND, CALIF.





*Sea &
Sage Audubon*

P.O. BOX 5447, IRVINE, CA 92616-5447

Mr Reed Holderman
Coastal Conservancy
1330 Broadway
Oakland, CA 94612

RE San Joaquin Reserve Enhancement, Phase 1

Dear Mr Holderman,

As co-chair of Sea and Sage Audubon Conservation Committee I would like to express support for the University of California Natural Reserve System (UCNRS) and State Coastal Conservancy San Joaquin Reserve Enhancement Plan Phase 1.

The project calls for minimal engineering to divert excess urban run off into the UCNRS Duck Ponds for use in enhancing wildlife habitats. Excess water cycled though the ponds will re-enter the San Diego Creek and head directly for Upper Newport Back Bay in better condition due to the natural cleansing process of wetland vegetation.

Beyond the initial impacts of vegetation removal and dredging of the ponds, which should be completed during late summer as the plan calls for, this project should have no foreseen negative impacts. The project should add to the general data base information on the abilities of wetlands to act as filters. Monitoring of the water quality in and out of the project would be beneficial to the overall health of the San Diego Creek and Upper Newport Back Bay.

Thank you,
Scott Thomas

Scott Thomas

Co- Chair Conservation Committee, Sea and Sage Audubon



SACRAMENTO OFFICE
STATE CAPITOL
SACRAMENTO, CA 95814
(916) 445-4961

DISTRICT OFFICE
18552 MAC ARTHUR BLVD.
SUITE 395
IRVINE, CA 92612
(714) 833-0180
(800) 221-2225

California State Senate

SENATOR
ROSS JOHNSON
CHAIRMAN, SENATE REPUBLICAN CAUCUS
THIRTY-FIFTH SENATORIAL DISTRICT

COMMITTEES:
APPROPRIATIONS
FINANCE, INVESTMENT AND
INTERNATIONAL TRADE
INDUSTRIAL RELATIONS
INSURANCE
JOINT COMMITTEE ON RULES



September 3, 1997

Ms. Patricia A. Heasly
Project Manager
Coastal Conservancy
1330 Broadway, 11th Floor
Oakland, California 94612

Dear Ms. Heasly:

Thank you for sending me information concerning the proposal to fund Phase I of a wetland enhancement project at the San Joaquin Freshwater March Reserve at the University of California, Irvine.

It appears to me that the proposed project would be useful in restoring coastal sage scrub habitat by eradicating non-native vegetation and replacing it with plants native to California's coast. The elements of the plan that are aimed at restoration of seasonal ponds would help eliminate infinite alterations over many years to important pond and marsh habitats.

I would appreciate being kept informed of the Coastal Conservancy's actions on this project.

Sincerely,

A handwritten signature in cursive script that reads "Ross Johnson".

ROSS JOHNSON
Senator, 35th District

RJ:lco

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
200 Oceangate, 10th Floor
Long Beach, CA 90802-4302
(562) 590-5071



September 3, 1997

Reed Holderman
Coastal Conservancy
1330 Broadway, Suite 1100
Oakland, CA 94612

Re: San Joaquin Reserve Enhancement, Phase I

Mr. Holderman:

I am writing this letter to express Coastal Commission staff's support for the Phase I portion of the San Joaquin Reserve Enhancement plan.

The Phase I portion of the project deals primarily with the hydrology regime of the marsh, deepening the existing ponds and providing a year-round source of water to achieve the goal of more open water and less emergent vegetation (i.e., cattails). The proposed development is exclusively a habitat enhancement project.

The primary Coastal Act sections relevant to the proposed development are section 30240 regarding environmentally sensitive habitat, section 30231 regarding biological productivity and water quality, section 30230 regarding marine resources, and section 30233 regarding the diking, filling or dredging of coastal waters and wetlands.

The stated goals of the proposed development are to increase the amount of seasonally flooded habitat, semipermanent streams, and riparian areas by providing a source of year-round water. In the process the proposed development will provide enhanced foraging areas for shorebirds and wading birds, establish semi-permanent habitat for benthic invertebrates and juvenile fish, establish nesting habitat for waterfowl and perching birds, improve water quality, and establish habitat for sensitive species.

The stated goals of the project are in keeping with the goals of section 30240 of the Coastal Act to protect environmentally sensitive habitat areas. The goals of the project are also compatible with sections 30230 and

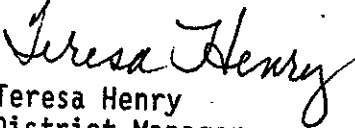
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Letter of Support
San Joaquin Marsh Enhancement Plan

30231 concerning enhancing marine resources, and maintaining the biological productivity and quality of coastal waters. Finally, the project is allowable under section 30233 of the Coastal Act in that the purpose of the development is restoration of habitat.

If successful, the project will result in enhanced coastal wetland as well as revegetation of upland areas with coastal sage scrub. Projects which result in an increase in the quantity and quality of coastal riparian habitat are welcomed by the Coastal Commission. Therefore, staff wholeheartedly expresses its support for the proposed enhancement plan and looks forward to processing a coastal development permit and federal consistency concurrence.

If you have any questions please call Robin Maloney-Rames at the Long Beach offices of the California Coastal Commission (562) 590-5071.

Sincerely yours,


Teresa Henry
District Manager

cc: CD, TH, SR, RMR, RR, FILE
9474F

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EXHIBIT 6
Mitigation/Monitoring Program

The Mitigation/Monitoring Program for implementation of Phase I of the Revised San Joaquin Marsh Enhancement Plan identifies actions and responsible parties for ensuring implementation of mitigation measures included in the Negative Declaration.

Potential Significant Impact	Mitigation Measure	Responsible Party Implementation	Responsible Party Monitoring
VII. BIOLOGICAL RESOURCES			
c) Potential construction related disturbance to coastal wetland habitat	See mitigation measures VIId1-2.	See responsible parties identified for measures VIId1-2.	See responsible parties identified for measures VIId1-2.
d) Potential construction related disturbance to Southwestern pond turtles and potential to disrupt nesting birds during management of water levels.	VIId1) Surveys for the Southwestern pond turtle shall be conducted by a qualified biologist immediately prior to dredging and levee alteration activities within areas of potential pond turtle habitat. If pond turtles are discovered, the UCNRS shall consult with the California Department of Fish and Game and implement mitigation measures that they recommend. VIId2) Seasonal ponds shall be managed so that desired water levels are reached prior to the beginning of the nesting season for bird species potentially using this habitat.	UCNRS UCNRS	SCC SCC

Potential Significant Impact	Mitigation Measure	Responsible Party Implementation	Responsible Party Monitoring
VI. TRANSPORTATION/CIRCULATION			
e) Potential need to close the Regional Santa Ana Heights Riding and Hiking Trail during project construction.	See mitigation measures XVb1-4)	See responsible parties identified for XVb1-4)	See responsible parties identified for XVb1-4)
XV. RECREATION			
b) Potential need to close the Regional Santa Ana Heights Riding and Hiking Trail during project construction.	<p>XVb1) Barriers will be placed on both eastern and western approaches of the trail to prevent users from entering the construction zone.</p> <p>XVb2) If consistent with public safety and protection of sensitive resources, a detour will be devised and the route posted during the construction phase of the project.</p> <p>XVb3) The closure periods shall be posted with signs visible from both east and west approaches to the affected segment of the trail.</p> <p>XVb4) Any damage to the levee surface caused by project construction activities will be repaired to enable subsequent use of the levee as a recreational trail and County of Orange maintenance road.</p>	<p>UCNRS</p> <p>UCNRS</p> <p>UCNRS</p> <p>UCNRS</p>	<p>SCC</p> <p>SCC</p> <p>SCC</p> <p>SCC</p>

CALIFORNIA COASTAL COMMISSION

South Coast Area Office
200 Oceangate, 10th Floor
Long Beach, CA 90802-4302
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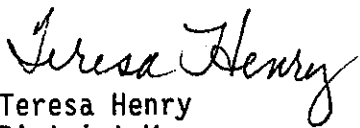
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