Potential Restoration Projects for Natural Resources Impacted by the Guadalupe Oil Field Diluent Releases: A Public Scoping Document

Prepared by:

The Restoration Subcommittee

California Department of Fish and Game
California Coastal Conservancy

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Introduction

The California Department of Fish and Game, Office of Spill Prevention and Response (OSPR) and the California Coastal Conservancy (Conservancy) have formed a Restoration Subcommittee responsible for administering $9 million in natural resource damages paid by Unocal pursuant to a Court settlement arising from the Guadalupe Oil Field diluent releases. The funds shall be used to develop and implement a restoration plan for projects that will restore resources and related human use services lost, injured, or destroyed by the Guadalupe Oil Field diluent releases. Restoration projects must be located in San Luis Obispo or Santa Barbara County as near as possible to the Guadalupe Oil Field. The Restoration Subcommittee is now submitting for public review and consideration this Scoping Document and requesting additional competent project proposals which meet the Restoration Planning Criteria by July 28, 2000 (See Appendix A). After consideration of public comments and any additional restoration projects proposed by the public, the Restoration Subcommittee intends to develop a draft Restoration Plan for public comment. A final Restoration Plan will be developed and implemented after consideration of all public input.

Background

The former Guadalupe Oil Field is located in southern San Luis Obispo County, along the coast. It covers approximately 3,000 acres within the Guadalupe-Nipomo Dunes Complex. Unocal Corporation began oil exploration at this oil field in 1947. To enhance the flow of the viscous crude oil Unocal used two main methods, diluent mixing and steam injection. Diluent, which is similar to a kerosene/diesel mixture, acted as a thinner for the crude oil. During the many years that diluent was used at the site, numerous leaks developed in tanks and pipelines used to distribute the diluent around the oil field. Over time, these leaks have led to serious contamination of the ground water below the site. Diluent has accumulated in plumes at more than 80 different locations throughout the oil field. Additionally, in several areas, the contaminated groundwater is also entering surface water bodies. Over the many years, millions of gallons of diluent were released to the environment.

The Guadalupe-Nipomo Dunes Complex is one of the largest dune systems along the California Coast. This area has been designated as a National Natural Landmark by the U.S. Secretary of the Interior because of the presence of extensive sand dunes, dune uplands, lakes, and wetlands. The OSPR, the California Regional Water Quality Control Board, Central Coast Region (RWQCB), the Conservancy, and the U.S. Fish and Wildlife Service, evaluated the diluent's impacts in coordination with Unocal, focusing on injuries to the habitat. Habitat types in the Former Guadalupe Oil Field the agencies documented as being impacted or "injured" by the contamination include: Riparian and estuarine (Santa Maria River), freshwater wetlands, dune scrub, dune slack, and the marine environment including nearshore, subtidal, intertidal and supratidal habitats including the foredunes. Many species that require these habitat types for their existence were included in the injury determination.

A State action was brought against Unocal by the OSPR, the RWQCB, the Conservancy, the Department of Toxic Substances Control (DTSC), and the Attorney General alleging a number of statutory violations and seeking natural resource damages. A settlement for natural resource damages and other claims was entered by the San Luis Obispo Superior Court on July 22, 1998, in which Unocal agreed to pay a total of $43.8 million. Of this, $9 million was allocated for restoration of natural resources and related human use services that were lost, injured, or destroyed by the diluent releases at the oil field.

Pursuant to a Memorandum of Understanding (MOU) entered into by the OSPR, the RWQCB, the Conservancy, and the DISC., restoration projects must be located in San Luis Obispo or Santa

Barbara County as near as possible to the Guadalupe Oil Field. The MOU established the Restoration Subcommittee comprised of the OSPR and the Conservancy which is responsible for natural resource restoration planning and implementation. Additionally, the MOU required the establishment of a Public Advisory Committee (PAC) to advise the Restoration Subcommittee regarding the selection of restoration projects and local community interests and concerns.

Development of the Scoping Document

To obtain restoration project ideas, the Restoration Subcommittee asked its PAC members to submit restoration project concepts meeting the Restoration Planning Criteria contained in Appendix A. This Scoping Document contains one page summaries of the project proposals submitted to the Restoration Subcommittee by the PAC (see Table 1 which identifies project authors, titles of projects, and estimated project costs). The Restoration Subcommittee conducted a preliminary evaluation of the project concepts outlined in this Scoping Document utilizing the Restoration Planning Criteria. This evaluation resulted in designating the Non-Guadalupe-Nipomo Dunes Projects as either "preferred" or "non-preferred." The Guadalupe-Nipomo Dunes System Collaborative Projects have not been prioritized at this time.

On May 17, 2000, the Restoration Subcommittee met with the PAC and proposed that the various endowment requests submitted by the PAC be combined to fund projects in the Guadalupe-Nipomo Dunes system meeting the Restoration Planning Criteria. The PAC concurred and recommended that a significant portion of the settlement monies be used to fund a restoration endowment for projects which meet the restoration criteria and which directly benefit the Guadalupe-Nipomo Dunes system.

The flow chart (Table 2) organizes the PAC project concepts into three categories: (1) Guadalupe-Nipomo Dunes System Projects; (2) Non-Guadalupe-Nipomo Dunes System Projects; and (3) Already Funded By Another Source Projects. The first category, the Guadalupe-Nipomo Dunes System Projects, envisions long-term coordination of restoration projects within the Dunes system. It includes a Collaborative Endowment component, and requires that a Collaborative Work Plan be developed which will identify the long-term restoration needs of the system and prioritize interim and long-term projects. The Stewardship Collaborative is currently a subcommittee of the Dunes Forum working towards the integration and coordination of restoration efforts in the dunes. The Collaborative membership would be an expansion of the Stewardship Collaborative to include all entities having an interest in the Dunes. The Stewardship Collaborative would work closely with the Restoration Subcommittee in developing the proposed Collaborative Work Plan. Of course, the Restoration Subcommittee would remain responsible for ensuring that interim and long-term projects meet the Restoration Planning Criteria.

The Restoration Planning Process

The Restoration Subcommittee is requesting comments on the Scoping Document and any additional competent project proposals from the public by July 28, 2000. Proposals must meet the Restoration Planning Criteria attached as Appendix A. Restoration projects must be located within San Luis Obispo and Santa Barbara Counties, as near as possible to the Guadalupe Oil Field. Additionally, projects must be technically feasible; restore, rehabilitate, replace or acquire the equivalent of the injured natural resources or the services those resources provided; and must comply with relevant and applicable

laws and safety requirements. Other criteria include: avoidance of collateral injuries; likelihood of success; benefits to multiple resources or services; time to provide the benefits; duration and protection of benefits; potential for collaborative funding from other sources; benefits relative to costs; and total cost.

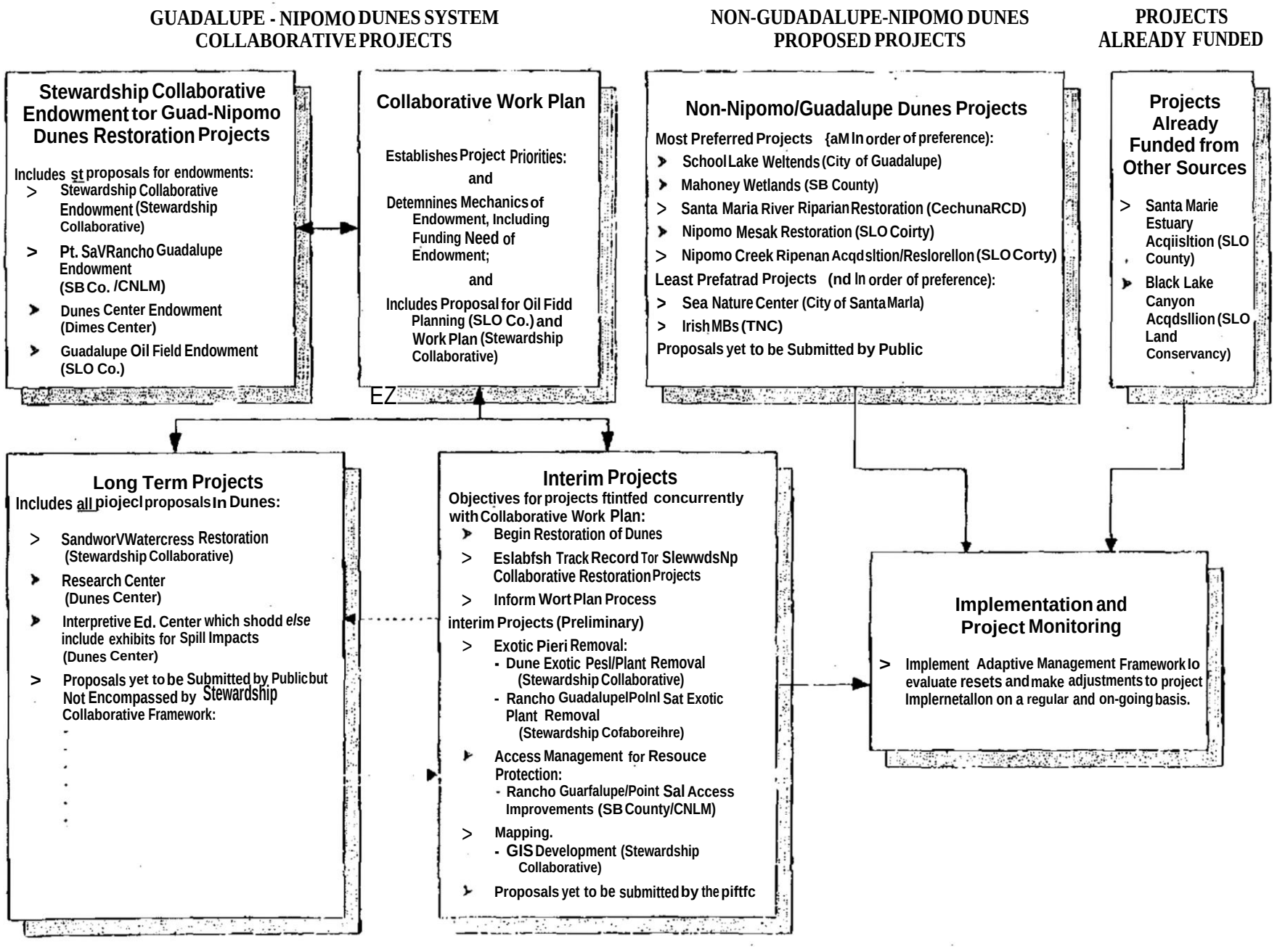
This request for public comments on the Scoping Document and request for public submittal of new projects are the first steps in the public review process for a proposed Guadalupe Restoration Plan. After consideration of public comments on the Scoping Document and any new public project submittals, the Restoration Subcommittee will prioritize all project submittals and inform project proponents of the prioritization by September 2000. The Subcommittee will then prepare a Draft Restoration Plan for public review and comment. A final Restoration Plan will later be developed and implemented after consideration of all public comment.

Table 1
Summary of Guadalupe Restoration Projects Submitted by the Public Advisory Committee

Project Applicant	Project Title and Cost	
A. Guadalupe-Nipomo Danes System Collaborative Projects		
1. Dunes Stewardship Collaborative	Stewardship Collaborative Endowment	35,000,000
	Stewardship Collaborative Work Program	100,000
	Recovery Plan for the Marsh Sandwort & Gamble's Watercress	85,000
	Guadalupe Dunes Land Management GIS Development and Maintenance	66,000
	Dune Exotic Pest Plant Removal and Restoration	250,000
	Interim Funding Request for Guadalupe Dunes Park and Point Sal	105,000
2. Dooes Center	Endowment Implementation of Guadalupe Nipomo Dunes Management Program and On-going Operations of Dunes Center	1,500,000
	Purchasing and Remodeling of Research Institute, and Endowment of Scientific Advisory Committee Expenses	370/100
	Matching Funds for Interpretative/Edacation Center "CREF" Grant Award	75,000
	Dunes Center Research Scholarship/Graut Fund	200,000
	Exhibit Documenting Impacts and Restoration Efforts	75,000
3. County of Sao Luis Obispo	Former OilField Management Plan and Endowment	1,075,000
4. Santa Barbara County Parks and tbe Center for Natural Lands Management	Guadalupe Dunes Park and Point Sal	1,782.00

Project Applicant	Project Title and Cost	
B. Non-Guadalupe-Nipomo Dunes System Projects		
1. Santa Barbara Co. Planning and Development Department	Mahoney Wetland and Sand Dune Preserve	699,610
2. City of Guadalupe (John L. Wallace and Associates)	City of Guadalupe School Lake and Wetlands Restoration Project	190,000
3. Cachuma Resource Conservation District	Enhancement of Riparian Habitat Within the Santa Maria Levee System	370,000
4. County of San Luis Obispo	Nipomo Mesa Dunes and Wetland Restoration	500,000
	Nipomo Creek Restoration	1,500,000
5. Santa Maria Recreation and Parks Dept.	Santa Maria River to the Sea Nature Center	1,548,000
6. Common Ground - A Coalition of the Bay Foundation, Central Coast Natural History Association, and the Nature Conservancy	Irish Hills Natural Area Conservation Project	1,000,000
C. Projects Already Funded by Other Sources		
1. County of San Luis Obispo	Purchase of Critical Habitat (Santa Maria River Estuary)	800,000 - 2,000,000
2. Land Conservancy of San Luis Obispo	Black Lake Canyon Land Acquisition	1,000,000

PROPOSED PROJECT EVALUATION AND IMPLEMENTATION FRAMEWORK



GUADALUPE-NIPOMO DUNES SYSTEM
PROJECTS COLLABORATIVE FRAMEWORK

PROJECT SUMMARY
STEWARDSHIP COLLABORATIVE ENDOWMENT

Project Applicant
Stewardship Collaborative

Project Contact
Elizabeth Scott-Graham - (805) 343-2455

Project Description

The Dunes Center, through its Dune Council, has established a Stewardship Collaborative to undertake a cooperative and long-term program of dune restoration. This Stewardship Collaborative strongly supports a permanent endowment to fund dune restoration. All of the participants have undertaken individual projects over the years and have found that without a long-term source of stable funding; the success of these projects is most often short lived.

The "Collaborative" consists of five property managers including: the California Department of Parks and Recreation through their San Luis Obispo Coast District and the Ocean Dunes District of the Off-Highway Vehicle Division; the Center for Natural Lands Management; the Land Conservancy of San Luis Obispo County; the U.S. Fish and Wildlife Service; and, the Dunes Center. Each party in the Collaborative manages habitat permanently designated as protected, and is committed to an integrated and coordinated stewardship for the benefit of the dunes environment. The property managers care for some 11,000 plus acres in the 15,500-acre dunes system.

The purpose of this project is to establish an endowment to provide the current and future owners of protected lands in the Dunes complex the resources to fund ongoing restoration, monitoring, enhancement and stewardship of the dune habitats in perpetuity.

The project will develop the mechanisms to carry out ongoing restoration, monitoring, research, enhancement, and re-vegetation across jurisdictional boundaries, taking a multi-species and ecosystem approach. This is essential to achieving the highest level of restoration benefits to the Dunes complex. The Dunes Center, which does not hold title to Dune lands and which will not participate in the restoration work, is prepared, under the Dunes Management Program, to coordinate the creation of the Work Plan for the Collaborative. The Center has staff to coordinate the implementation of the plans that will be created by the Collaborative. The development of the procedures and processes of the Scientific and Technical Advisory Committee will result in science based resource management decision-making.

Nexus

The project not only restores and enhances the natural resources damaged by the spill, it provides the means to coherently begin this restoration work by developing the mechanisms for the Collaborative to carry out its work. The removal of exotic plants is becoming well recognized as a high priority activity in the protection of sensitive native plant communities, which in turn provides habitats for the fauna dependent on those plants. Re-vegetation is likewise well recognized as essential in some areas.

Request

$5 million endowment. By providing an endowment it assures that the work which is carried out by the Collaborative will endure in perpetuity.

PROJECT SUMMARY
STEWARDSHIP COLLABORATIVE WORK PROGRAM PLANNING PROCESS

Project Applicant
Stewardship Collaborative

Project Contact
Elizabeth Scott-Graham - (805) 343-2455

Project Description

The purpose of this project is to develop, over a two year period, a Work Plan for implementing a restoration, monitoring, enhancement and stewardship program in the Guadalupe-Nipomo dunes to be funded by an endowment.

The Collaborative set out a list of 13 tasks to be accomplished during the development of the Work Program. Interim funding is requested form the Guadalupe Fund Committee during this application period to complete the first five steps of the Work Program in the anticipation of a Resource Agency Coastal Planning Grant which would fund the work of the other eight steps. The first five steps will lay the groundwork for coordinating goals, tasks, responsibilities and costs, and establish the Scientific/Technical Advisory Committee necessary to move to the next level. The five tasks are as follows: (1) Develop ad approve collaborative bylaws; (2) Document existing and planed restoration activities; (3) Identify needs for additional multi-species information for restoration; (4) Define working relationship between the Collaborative and the Dunes Center's Scientific/Technical Advisory Committee; and (5) Conduct training on the Property Analysis Record to determine if it is an appropriate method of integrating tasks and costs across the Collaborative and over-time.

The interim funding will also support joint activities among the collaborative partners during the expected two-year period necessary for development of the Work Program. These activities will include: biotic surveys; habitat restoration (particularly exotic-invasive plant removal and control); public service; and, reporting. During the two-year period, each collaborative partner will request ah amount to cover defined activities. Where those activities are being provided by other partners, the receiving partner will pay the providing partner for the services out of the grant funds. For instance, where the San Luis Obispo Conservancy is providing invasive-exotic removal on property managed by the Center for Natural Land Management, the Center will pay the Conservancy for that service form the Center's award.

Nexus

The project not only restores and enhances the natural resources damaged by the spill, it provides the means to coherently begin this restoration work by developing the mechanism for the Collaborative to carry out its work

Request

$100 thousand. It is proposed that the interim funding be awarded to the Dunes Center to hold in a money market fund to be distributed according to the Work Program budget for the first four steps .

PROJECT SUMMARY
IMPLEMENTATION OF THE U.S. FISH & WILDLIFE SERVICE RECOVERY PLAN
FOR THE MARSH SANDWORT & GAMBLE'S WATERCRESS

Project Applicant
Stewardship Collaborative

Project Contact
Elizabeth Scott-Graham - (805) 343-2455

Project Description

The purpose of this project is to implement recommendations of the Recovery Plan for the Marsh Sandwort *(Arenaria paludicola)* and Gamble's Watercress *(Rorippa gambelii)* adopted by the U.S. Fish and Wildlife Service September 28, 1998. This plan provides a comprehensive program for recovery of these species. Several of the recommendations relate directly to restoration activities in the dunes.

This recently adopted Recovery Plan contains a number of specific recommendations for recovery of these plants. This proposal is to implement selective recommendations of the Plan that are listed as Priority 1 items, involve direct restoration activities within the dunes, and are recommended for implementation during the first two-years of recovery. Other recommendations include such items as amending San Luis Obispo County's General Plan. These recommendations are not included in this proposal.

This proposal is to:

- Establish agreements with public and private landowners for access to property for introduction of the species and/or research and monitoring.
- Stabilize dunes in the dune lakes and Oso Flaco area.
- Increase the existing populations, and
- Evaluate the progress and update recovery guidelines.

The Land Conservancy proposes to work with all of the resource agencies to implement the recommendations of the Plan, undertaking those activities appropriate for the Land Conservancy directly while assisting in the coordination with agencies for their own areas of expertise.

Nexus

A great deal of the damage caused by the spill is on the surface of the dunes. This includes the historical damage caused by roads and pipelines as well as the damage that will be caused by excavation clean-up activities. The sandwort and watercrest are endangered species dependent on saturated wetland peat soils of coastal dunes. The habitat of these species depends on high ground water quality and quantity. The diluent spill in the dunes ground water basin and its associated cleanup has the potential to directly impact these species.

Request

The total two-year budget request for this project is $85,500. This is based on the recommendations of the Recovery Plan.

PROJECT SUMMARY
GUADALUPE DUNES LAND MANAGEMENT
GIS DEVELOPMENT AND MAINTENANCE

Project Applicant
Stewardship Collaborative

Project Contact
Elizabeth Scott-Graham - (805) 343-2455

Project Description

The purpose of this project is to provide a landscape based GIS model for management of restoration efforts in the Guadalupe Dunes. The "Land Management Unit" map and related database will track restoration activities geographically, provide a method for prioritizing restoration actions, and facilitate success monitoring of restoration actions.

The Land Conservancy is currently involved with a limited exotic removal project under a grant with San Luis Obispo County. As part of this work, the Dunes have been analyzed with respect to endangered species locations and weeds threats. The results of this work has been delineation of land management units. These units consist of sites of homogenous vegetation and management needs, and they have been delineated for much of the northern Dune properties.

This GIS model will be an important building block of the Work Program concept submitted as a separate concept. This concept of a GIS model needs to proceed immediately as an independent project to guide ongoing restoration by members of the Conservation Collaborative.

The area covered by this grant includes all of the public and private land from Oceano to Point Sal. All landowners in this region will be contacted, their land surveyed and priorities for restoration established regardless of ownership (except for the Unocal lease).

This project will include the following elements.

- Prepare an air photo base that can be sued with the existing GIS maps. The product will be a set of digital ortho-rectified color image mosaic for use in a GIS.
- Incorporate existing GIS maps into a unified structure. The Nature Conservancy has prepared several layers for a GIS. These layers will be converted in format and projection to match that data held by State Department of Parks and Recreation (DPR). The DPR data will be merged with the Nature Conservancy model to create the base layers necessary for resource management.
- Prepare a digitized map of Land Management Units and associated database. The product will be a fully functioning GIS management model for the Dunes complex.

Nexus

This project relates directly to the loss of habitat in the Unocal lease from excavation of clean-up sites. For habitat restoration and protection to be successful on such a large scale, specialized tools such as the one proposed will be absolutely necessary.

Request

$66,000.

PROJECT SUMMARY
DUNE EXOTIC PEST PLANT REMOVAL AND RESTORATION

Project Applicant
Stewardship Collaborative

Project Contact
Elizabeth Scott-Graham - (805) 343-2455

Project Description

The purpose of this project is to remove exotic species that are threatening the habitat of sensitive species and otherwise pristine areas of the dunes. These exotic plants include beach grass, Veldt grass, Pampas grass and ice plant.

This project is to continue the hand removal of exotic plant species for two-years. This will allow time for a long-term management plan to be developed describing long-term goals. The project includes two elements, removalof exotic plant species plus reseeding where appropriate, and a continuation of the cattle grazing experiment. The area covered by this grant includes all of the public and private land (protected by easements) from Oceano to Point Sal (except for the Unocal lease).

- Continue exotic removal in high-quality areas.
  The Land Conservancy of San Luis Obispo County has completed a planning process that included technical workshops and public input to date to define priorities for the removal of exotic plant species from the dunes. The Land Conservancy has also purchased equipment, developed a trained crew in cooperation with the California Conservation Corps, obtained access agreements with the landowners and has developed a field procedures for removing the exotic plant species. This protocol involves sending hand-crews into remote areas of the dunes to remove the exotic species either by hand or through the use of herbicides. Field notes and documentation of work being undertaken is available for review.
- Continue the cattle grazing experiment for an additional two years.
  The second element of this proposal is to continue for two years what has become a very important tool in exotic species management, using cattle as a land management tool.

The Land Conservancy has undertaken a pilot program at the TOSCO refinery on Highway 1 that shows promise. We used cattle in a short duration (one to two day) intensive grazing to suppress the grass while leaving the shrubs. We believe this program, over time, will allow the native shrub cover to regenerate.

Nexus

A great deal of the damage caused by the spill is on the surface of the dunes. This project is designed to begin restoration of the natural biota in the impacted area.

Request

The total budget request for this proposal is $250,000. This would provide funding for two-years of fieldwork (at approximately $10,000/month) plus $10,000 to continue the cattle-grazing project at TOSCO Refinery for two-years.

PROJECT SUMMARY
INTERIM FUNDING REQUEST
GUADALUPE DUNES PARK AND POINT SAL

Project Applicant
Stewardship Collaborative

Project Contact
Elizabeth Scott-Graham - (805) 343-2455

Project Description

This funding through the Stewardship Collaborative is to support tasks at Guadalupe Dunes Park and Point Sal during the two-year period projected for development of the Work Program. The tasks during this interim period are the same as those to be covered in the Work Program for the Stewardship Collaborative including biotic surveys, habitat restoration, and reporting. Such basic management tasks as those proposed should not be deferred for the two-year period. Furthermore, continued efforts on these tasks will add to the knowledge base necessary for the Collaborative's design of its Work Program.

- Biotic Surveys. The species of greatest concern at Guadalupe Dunes Park are western snowy plover and California least tern as the Park is an important nesting area. An initial monitoring program has been developed for these species which will provide background to for further development of the management and monitoring protocol. At Point Sal, animal surveys for listed amphibians, certain vegetation (aphanisma, surf thistle, anc sand mesa manzanita) surveys and insect surveys are planned.
- Habitat Restoration. At Guadalupe Dunes, European beach grass covers a small portion of the site but is likely to expand without immediate action. Several of the dune hummocks are also dominated by ice plant which requires timely eradication. At Point Sal, a number of non-native grasses, trees and shrubs have invaded the property.
- Reporting. Both sites require the continued maintenance and development of data recording, mapping, and reporting systems.

Request

The request for two-years of work in these three areas totals $105,100. The breakdown is as follows including contingencies and administration.

Task	Guadalupe Dunes Park	Point Sal	Total
Biotic Surveys	21,800	12,200	34,000
Habitat Restoration	28,500	15,900	44,400
Reporting	8,400	18,300	26,700
Total	58,700	46,400	105,100

PROJECT SUMMARY
ENDOWMENT IMPLEMENTATION OF GUADALUPE-NIPOMO DUNES
MANAGEMENT PROGRAM AND ON-GOING OPERATION OF DUNES CENTER

Protect Applicant
Dunes Center

Project Contact
Elizabeth Scott-Graham (805) 343-2455

Project Description

The existence of the Dunes Center with its research institute, Dunes Program Management staff positions and public education capabilities is working to ensure the success of restoration of damaged resources in the dunes. By providing the leadership to create the Collaborative, the Dunes Center has helped develop a strategy for making the most effective use of the Unocal Spill Restoration funds. The Dunes Center is carrying out a quasi-public responsibility in implementing the Dunes Management Program. All of the lands managed by the Collaborative members were purchased with public funds. The Dunes is a single ecosystem and impacts to one area of the dunes impacts ail areas. In working toward a unified approach to species restoration, using independent scientific information and monitoring techniques, the Dunes Center and the Collaborative seek the most cost-effective way to restore habitat.

In addition to providing the leadership in cresting the Stewardship Collaborative, the Dunes Center has agreed to assume the responsibility to raising $5 million dollars in funds to match the Stewardship Collaborative's request for a $5 million endowment from the Restoration Fund Committee. Raising these funds will take considerable staff time and effort. The endowment income will not accrue to the benefit of the Dunes Center's financial stability or resources.

Nexus

The resources affected by the diluent spill are all encompassed within the Guadalupe-Nipomo Dunes ecological complex. The splintered ownership and multiple, varied interests of the owners make coordinated management of the resources challenging. The Coastal Conservancy has adopted the Guadalupe-Nipomo Dunes Management Program that is intended to provide the over-arching framework for ongoing and coordinated management, restoration and monitoring of the resources. All of the natural resources damaged by the Unocal spill exists in the parcels of dune lands managed by both private and public entities. Providing the resources to enable these landowners and managers to cooperate in restoration activities is a critical task if restoration is to be successful in the long-term.

Request

$1,500,000.

PROJECT SUMMARY
PURCHASING AND REMODELING OF RESEARCH INSTITUTE, AND ENDOWMENT
OF SCIENTIFIC ADVISORY COMMITTEE EXPENSES

Project Applicant
Dunes Center

Project Contact
Elizabeth Scott-Graham (805) 343-2455

Project Description

The Dunes Center is creating a research institute to facilitate research on the dunes, the restoration and monitoring work of the Dunes Collaborative, and to be a repository for all research conducted on the dunes. Toward that end, the Dunes Center has acquired, by a $100 thousand loan, the property adjacent to its new Dunes Center offices and Interpretive/Education Center building and land. The new building needs to be paid for and remodeled into offices, labs workstations and field station for scientist and researchers involved in work on the Guadalupe-Nipomo dunes Complex and related resources.

The second part of this project involves the creation of an endowment to help pay for expenses of volunteer researchers who will serve on the Scientific and Technical Advisory Committee which is critical to the effective restoration of the dunes.

Nexus

The project directly restores and enhances the natural resources by facilitating research, study and project guidance and evaluation of the restoration work that will go on in the dunes in perpetuity. Encouraging direct and ongoing involvement of the scientific community is a key element to the work of the Collaborative and it is a key element of the Dunes Management Plan approved by the Coastal Conservancy.

Request

Purchasing and remodeling - $220,000 and Scientific Advisory Committee Expense Reimbursement Endowment Fund - $150,000.

PROJECT SUMMARY
MATCHING FUNDS FOR INTERPRETATIVE/EDUCATION
CENTER "CREF" GRANT AWARD

Project Application
Dunes Center

Project Contact
Elizabeth Scott-Graham (805) 343-2455

Project Description

The project is to provide partial funding for the next phase of the New Dunes Center construction of Interpretative/Education Center, supplementing monies awarded by the Santa Barbara County Board of Supervisors through the Coastal Resources Enhancement Fund (CREF) administered through Santa Barbara County.

The second phase of our development program is an extension of the exhibit, meeting and education space to the west, including a second story outdoor dunes overlook. The Center has received $168,000 from CREF funds that must be dispersed by January of 2001. The Center has been awarded other CREF grants in the past for state-of-the-art exhibit and curriculum development programs.

Nexus

The project helps restore and enhance the natural resources by serving to implement the Management Plan, the Stewardship Collaborative's restoration work, and by creating a sense of stewardship for the resources. No other organization has as its sole focus the conservation of the Dunes ecosystem and, hence all Dunes Center activities are directly related to the resources and services.

Request

$75,000.

PROJECT SUMMARY
DUNES CENTER RESEARCH SCHOLARSHIP/GRANT FUND

Project Applicant
Dunes Center

Project Contact
Elizabeth Scott-Graham (805) 343-2455

Project Description

This project would provide "seed" money to establish an endowment fund with income to be used to award scholarships or small grants for research relevant to the Dunes and their resources and restoration. The concept is for an annual award to one or more persons or organizations up to a combined total of about $10,000 per year. In order to generate this amount on a regular basis while protecting principal, approximately $200,000 is needed. The Dunes Center Board of Directors foresees the fund increasing as private contributions are made over time.

Awards would be made to individual students who do their graduate thesis or senior project on research relevant to the restoration, enhancement, and monitoring of the Dunes resources, or to academic institutions in support of Dunes related to research or field projects. The focus of the Research Institute will be to provide scientific information for dunes restoration managers.

Nexus

The project directly restores and enhances the natural resources by facilitating study and evaluation projects related to the resources. Encouraging direct and ongoing involvement of the scientific community (academic and professional) is the key element of the Coastal Conservancy's Dunes Management Program.

A criteria for award of a scholarship/grant would require that the study focus on resources and restoration in the dunes. There would be strong incentives to have the research directed to providing resource restoration participants with scientific resource management information.

Request

$200,000.

PROJECT SUMMARY
EXHIBIT DOCUMENTING IMPACTS AND RESTORATION EFFORTS

Project applicant
Dunes Center

Project Contact
Elizabeth Scott-Graham (805) 343-2455

Project Description

This project provides one-half of the funding for a permanent exhibit at the Dunes Center that would document the impacts from human use of the dunes including the spill, restoration programs, and research and monitoring results of the general public. In addition, the exhibit would cover the other impacts from human activities of the Dunes Natural resources and ways that those impacts can be reduced. The format would be a state-of-the-art physical display (with interactive components especially for children) as well as in CD format (similar to the highly acclaimed Dunes Center existing exhibits on the animals in the dunes).

Nexus

Giving the public an understanding of the impacts from human activities and ways of mitigating them is important for the ongoing support of restoration, enhancement and conservation of the Dunes natural resources. The public support helps sustain the financial and political resources needed for long-term conservation.

Request

$75,000.

PROJECT SUMMARY
FORMER OIL FIELD MANAGEMENT PLAN AND ENDOWMENT

Project Applicant
County of San Luis Obispo

Project Contact
John Euphrat - (805) 781-5194

Project Description

The County's December 10, 1998, approval of the remediation and abandonment project requires Unocal to transfer title of the oil field to a public agency or conservancy organization by the end of the Phase I clean up project. Phase I should end by the year 2003. It was estimated that a conservation easement would be worth approximately $6 million, with fee title worth considerably more. In addition, Unocal is required to restore the site prior to the end of Phase I. However, no provision has been made for funding a management program once title to the site is passed to a public agency or land conservancy. The 3,000-acre former oil field is one of the largest pieces of property in the Dunes Complex that is not yet protected.

The County proposes to use the settlement funds to retain expertise to develop a long-term management plan for the site. The management plan would be developed to be integrated into the Management Plan developed for the Dunes Preserve by The Nature Conservancy and the U.S. Fish and Wildlife Service. Management opportunities that should be included in the Plan include monitoring of restored habitat areas, continuing the program to remove invasive species and planning for construction of improvements for public access to limited portions of the site and, public environmental education.

Nexus

This site is the location of the chronic leaks and spills that has led to the creation of this funding program. All types of habitats on the site, sandy beach, fore dunes, stable back dunes, wetlands, riparian and estuarine habitats have all been affected by these chronic leaks. The management plan would identify the remedial needs of these habitats at the site and, further, will prepare the site for its ultimate use (e.g., limited public access/environmental education, wildlife refuge). The endowment would be used to implement the management plan opportunities at a steady yearly rate.

Request

Plan preparation is budgeted at $75 thousand. A $1 million endowment that would release from $50 thousand to $75 thousand per year for plan implementation would also be needed. The total cost would be $1,075,000.

PROJECT SUMMARY
GUADALUPE DUNES PARK AND POINT SAL

Protect Applicant
Santa Barbara County Parks through its proposed habitat manager, the Center for Natural Lands Management.

Project Contact
Colleen Lund - (805) 568-2470

Project Description

Santa Barbara County and the Center for Natural Lands Management are working with the Stewardship collaborative to integrate management of certain categories of tasks for the entire dunes complex. These include biotic surveys, habitat restoration, reporting and limited public services. The permanent stewardship for these tasks is covered for the referenced properties by the Collaborative proposal.

This application encompasses the permanent stewardship through the creation or addition to endowment for the referenced properties for needed stewardship tasks not included in the Collaborative's proposal, nor funded from any other source. Santa Barbara County regularly applies for and receives grants for capitol improvements at the properties, however, such grants do not cover ongoing maintenance.

A important task contributing to management costs is construction and maintenance of fences to prevent additional damage from cattle grazing at Point Sal, and reconstruction and maintenance of the entry fencing at Guadalupe Dunes to protect the property from unwanted traffic from visitation particularly during nesting season. Additional protection and outreach will be provided through the construction of a kiosk at Point Sal, and continued manning and maintenance of the kiosk at Guadalupe Dunes Park. Consistent patrolling of the areas is necessary particularly, during nesting and other times critical to the biological resources.

Other public services are needed for the enjoyment and education of the public concerning the resource at each of these properties including interpretive signs, trail markers, trail design and maintenance, and community outreach. Sanitation control, maintenance of toilets, trail design are part of coastal access protection also. Each of these services is necessary to accommodate the public while at the same time protecting habitat.

Field equipment for purposes of monitoring the protection and office to support staff at the properties are part of the request for Point Sal. All properties require a certain level of administration and over head to function appropriately.

~~Nexus~~

Rancho Guadalupe Dunes County Park, located immediately south of the Santa Maria River and the Guadalupe oil field, is the site of nesting snowy plovers and the California least tern. In addition, the Park accommodates multiple recreational uses and receives approximately 60,000 visits a year. Also beaches and active coastal dunes adjacent to the riparian corridor were formed by the Santa Maria River, and the Park is an integral part of the Guadalupe-Nipomo Dunes ecological unit.

Point Sal marks the southern end of the Guadalupe-Nipomo Dunes and, is therefore part of the same dunes ecosystem as the Park and other dunes properties.

Request

The request is for $510,000 for the Guadalupe Dunes Park for activities which are not funded through the Collaborative nor through any other source. Further, the request is for all or part of $1,272,000 for Point Sal which presently has no funding for stewardship activities of any kind. Both sums are to be permanent endowments for the benefit of these properties.

NON-GUADALUPE-NIPOMO DUNES SYSTEM PROJECTS

PROJECT SUMMARY
MAHONEY WETLAND AND SAND DUNE PRESERVE

Project Applicant
Santa Barbara County Planning and Development Department

Project Contact

Project Description

The project proposes to acquire an preserve up to 152 acres (the Mahoney parcel, APN 111-220-22) , including 40 acres of wetland and 80 acres of ancient sand dunes and other habitat for sensitive species in close proximity to the Guadalupe Oil Spill site. The project would involve acquisition of sensitive habitat at fair market value; development of a management plan and restoration plan, including opportunities for children's outdoor education and public access; implementation of management plan recommendations; and, establishment of an endowment for long-term operations and maintenance. Preservation of the site would provide protection for multiple habitats and species that the site shares in common with the Guadalupe Oil Spill site, including wetland and dunes.

Nexus

The proposed project would forever protect and replace comparable resources to those injured by the spill at the Guadalupe Oil Field. These include ancient sand dunes and freshwater ponds and pools that support migratory waterfowl and shorebirds such as western grebe, great egret, snowy egret, green heron, mallard, northern pintail, cinnamon teal, gadwall, American widgoen, killdeer, black-necked stilt, lesser yellowlegs, whimbrel, and long-billed dowitcher that are also present at the Guadalupe Dunes. Other species in common ate blacktail jackrabbits, ground squirrels, loggerhead shrike (California Species of Special concern [CSC]), homed lark (CSC), red-tailed hawk, golden eagle (CSC), white-tailed kite ("special animal" list), and American kestrel. The vernal pool complex at the proposed project site contains unusual amphibian and reptile species once widespread in the Santa Maria Valley, but now largely eliminated form most sites throughout the region such as the recently listed California tiger salamander (FE).

The Mahoney Wetland and Sand Dune Preserve project concept is consistent with the restoration goals of the Guadalupe Oil Field Settlement. Acquisition and restoration of this parcel would protect the water quality of wetlands and the groundwater of the Santa Maria Valley, as well as protect sand dunes and sensitive species that are also present at the diluent site. The Mahoney parcel is within the Santa Maria groundwater basin, in close proximity to the impacted site, approximately 9 miles east of the Guadalupe Oil Field diluent spill.

Request

$699,610.

PROJECT SUMMARY
CITY OF GUADALUPE SCHOOL LAKE AND WETLANDS RESTORATION PROJECT

Project Applicant
John L Wallace & Associates for the City of Guadalupe

Project Contact
Susan Ostrov - John Wallace & Associates (805) 544-4011

Project Description

The 24-acre Guadalupe School Lake Wetlands are located in the eastern portion of the City of Guadalupe. The Guadalupe School Lake and Wetlands are primarily located adjacent to City Hall that was a K-8 school built in the 1930's. The level of degradation is notable. The Audubon Society has designated the master site a "hotspot" in need of restoration.

The goal of the Guadalupe School Lake and Wetlands Restoration project is multifaceted and will implement the restoration of water quality, flora and fauna habitats, improve drainage and flood control, land use planning, community access and pedestrian circulation, and provide educational and recreational opportunities. In addition, the project may provide jobs to "at risk" community members.

The project proposes to cleanup the shoreline surrounding the wetlands and improve the quality of the water within the wetland. The removal of invasive plants will be accomplished and replanting of naive vegetation species will be conducted to restore wild life habitat. The aquatic habitat will be restored to provide clean and healthy wildlife habitat in the Guadalupe Lake and Wetlands. Freshwater aquatic habitat and both surface and subsurface water quality will be enhanced through the project, thereby resulting in beneficial results for drinking water and agriculture water supplies in the area. Endangered species are expected to occur within the restoration.

Nexus

The proposed project will improve surface and subsurface water quality, improve habitat for species impacted by the oil spill, improve drainage and flood control and provide community access to the lake and wetlands area.

Request

Currently, the Regional Water Quality Control Board and Coastal Resource Agency Grants do not provide adequate funding for the project costs. The project requires a funding level of $190,000 to meet the existing funding shortfall.

PROJECT SUMMARY
ENHANCEMENT OF RIPARIAN HABITAT WITHIN THE
SANTA MARIA LEVEE SYSTEM

Project Applicant
Cachuma Resource Conservation District

Project Contact
Gerald Czarnecki, District Manager - (805) 928-9269

Project Description

This project would enhance riparian habitat within the Santa Maria River levee system from Fugler Point to Guadalupe by installing linear planting of willows and other wetland plants. This planting would average approximately 50-feet in width and would provide habitat for numerous species wildlife, including the endangered Willow Flycatcher. It would also provide a heavily vegetated corridor connecting the dune areas with the upland interior. Other benefits would include protection of the levees that may preclude the need for extremely expensive armoring repairs. The project would also be in cooperation with the FCD

Nexus

Protection of the Santa Maria levee system is critical in maintaining the integrity of the drainage system, not only for the health and safety of the valley residents, but the also to protect critical estuarine and riverine habitats.

Request

$370,000.

PROJECT SUMMARY
NIPOMO MESA DUNES AND WETLAND RESTORATION

Project Applicant
County of San Luis Obispo

Project Contact
John Euphrat - (805) 781-5194

Project Description

The Nipomo Native Garden is a grassroots organization that is working with the County to re-establish natural areas on the Nipomo Mesa. The organization has found several sites on the Mesa that represent opportunities to restore the native vegetation in the area being lost to encroaching urban development. Two specific habitat areas have been targeted: maritime chaparral and dune wetlands. Sites have been located on the Mesa and some preliminary design work has already been completed. The Native Sons Nursery has been instrumental in developing the program to this point.

The Native Garden organization owns a 12-acre piece of property on the Nipomo Mesa near the Regional Park on Pomeroy Road. They have a work plan that proposes to restore this 12-acre property to the maritime chaparral and wetlands that used to exist in the area prior to rapid urbanization. Native plants will be used to revegetate the site; chiefly in maritime chaparral with interspersed oak woodland and wetlands. These habitat types all existed in the immediate prior to the rapid development of the Mesa.

Nexus

Wetlands and maritime chaparral were plant communities that were affected by the oil spills and leaks at the oil field. Restoration of this site in the proposed manner will address the loss of these resources at the oil field.

Request

The estimated budget for this multiple habitat restoration project has been discussed at length. The organization is already in place and has a large core of volunteers that have been committed to the effort. Therefore, the estimated funding request is minimal due ownership of the property and the use of volunteer labor. The budget is approximately $500,000. The County, the San Luis Obispo Land Conservancy, and other private and public organizations will take *a* role in assisting the local group with these restoration projects. Receiving and administering funds, providing technical expertise and developing restoration plans based on established procedures will be provided to the Garden organization.

PROJECT SUMMARY
NIPOMO CREEK RESTORATION

Project Applicant
County of San Luis Obispo

Project Contact
John Euphrat - (805) 781-5194

Project Description

Nipomo Creek is a blueline stream that runs from the foothills below Tematate Ridge to the Santa Maria River near the U.S. 101 bridge. The Nipomo Creek Restoration Committee is made up of interested members of the community with technical assistance from the San Luis Obispo Land Conservancy and Native Sons Nursery, and is in the process of conducting a field inventory of portions of the creek in need of restoration. Most restoration needs so far have been focused on removal of exotics, planting of native riparian vegetation, and creek bank stabilization. The efforts are similar to the City of San Luis Obispo's work on San Luis Creek. Once the inventory is complete in the next three months, specific restoration projects will be developed.

Several target areas have already been identified including six locations along Nipomo Creek from just north of Teft Street to the Dana Adobe south of the community of Nipomo. Additional sites will be included in the project as property owners agree to the work. These sites are approximately five-miles from the Santa Maria River. The project will contain a mix of creek restoration projects on six discrete sites and purchase of key pieces of property that contain substantial linear distance of creek frontage. A 40-acre property with approximately 1,000 feet of creek has already been identified for preservation and restoration.

Nexus

Nipomo Creek is a tributary to the Santa Maria River. The effects on the river of the chronic leaks and spills can be mitigated through restoration projects throughout the watershed.

Request

Preliminary cost estimates indicate that total funding requirements will be less than $500,000. Property purchases of key parcels with extensive creek frontage will be identified as the Committee discusses the projects with willing sellers. Property purchases are budgeted at $1,000,000.

PROJECT SUMMARY
SANTA MARIA RIVER TO THE SEA NATURE CENTER

Project Applicant
Santa Maria Recreation and Parks Department

Project Contact
Mary Martone (805) 925-0951 x 263

Project Description

The City of Santa Maria and its partners will create the Sea Nature Center at a city-owned building located in Preisker Park, about two blocks from the Santa Maria River. The walk from the Center through the Park to the River takes about five minutes, which also connects to the proposed multi¬use trail along the Santa Maria River levee. Land will be purchased along the River, rehabilitated as necessary and enhanced with an interpretive trail. Curriculum and exhibits will be developed to educate the public on the environment and recreation activities , especially as it relates to the watershed from the mountains to the ocean. The City will operate the Center for the first five-years, or until the a non-profit organization, which will be formed by the partners, is ready to take over operations. A group will be formed to advocate for the environment and to actively pursue projects that can help preserve or enhance the environment The project will include several elements: (1) Educational and leisure curriculum through a Environmental Educator; (2) Renovation of a 1,500 square foot building located at Preisker Park; (3) Renovation of a 2,500 square foot fenced yard at the Santa Maria Nature Center; (4) Acquisition of seven acres of the Santa Maria River Bed natural area; and, (6) Creation of a citizen support group to oversee the coordination of the program.

The proposed project will provide an educational understanding of the terrestrial ecosystem, which adjoin the marine environment. In order to understand coastal impacts, it is necessary to understand onshore and upland activities. The concept of watershed can be used to study and educate about the relationship marine and terrestrial systems. The Santa Maria River Nature Center project is uniquely suited to provide the public and upper elementary students with an opportunity to explore these relationships.

Targeted participants for the curriculum-based project will be 4th, S"1, and 6th grade students as well as residents and tourists. The project focus will be on education for use in schools and for family-oriented education and leisure. Based on the present commitments of the three local elementary school districts, the projected attendance is 10,000 visitors annually.

Nexus

The proposed project will forever protect and replace resources in the Santa Maria River comparable to those injured in he spill. This includes river habitat that supports migratory waterfowl and shore birds that are present at the Guadalupe Dunes. Other species in common include small mammals such as blacktail jackrabbits and ground squirrels, reptiles and amphibians. The Santa Maria River Nature Center project will provide an understanding of the of the critical link between the upper watershed and the sea for area residents, and will acquire and protect a seven acre parcel in the Santa Maria River.

Request

A total of $1,548,000 is requested for this project.

PROJECT SUMMARY
IRISH HILLS NATURAL AREA CONSERVATION PROJECT

Project Applicant
Common Ground - A coalition of the Bay Foundation, Central Coast Natural History Association, and The Nature Conservancy.

Project Contact
Kara Woodruff Smith - Nature Conservancy - (805) 544-2209

Project Description

The purpose of the Irish Hills Natural Area Conservation Project is to ensure the long-term protection of the region of San Luis Obispo county known as the Irish Hills, which was identified in a recent study funded by the Packard Foundation as one of the County's most important areas to conserve, as a result of its ecological, scenic, and agriculture resources and the pending threats to those resources.

Specifically, the project will work with willing landowners to acquire key properties in this 50,000 acre region, to ensure that the Irish Hills will always be a place where the land stays healthy, where wildlife flourishes, and where people can go to recreate and rejuvenate.

Nexus

Located along the San Luis Bay, this project is in close proximity to the Guadalupe Oil Field, which is located along the southern end of the Bay and is consistent with the established restoration goals (as acquiring ecologically unique and rich Central coast habitat that was lost as a result of oil field contamination and cleanup activities) of the Restoration committee. The benefits of this project would be in-perpetuity, as this would permanently protect lands within the Irish Hills region . As currently contemplated, the land protected pursuant to this project would be added to the existing Montana de Oro State Park, thus increasing the public's recreational opportunities, or held by a conservation group for its long-term protection from residential, commercial, or industrial development.

Request

The project applicants propose that the Guadalupe Fund Committee provide, in total, $1,000,000 of highly leveraged monies (to be matched by approximately $9,000,000 by TNC, the Bay Foundation, CCNHA, and others) from the Guadalupe Fund, for protection of approximately 7,000 acres within the proposed Irish Hills Natural Area.

PROJECTS ALREADY FUNDED BY OTHER SOURCES

PROJECT SUMMARY
PURCHASE OF CRITICAL HABITAT

Project Applicant
County of San Luis Obispo

Project Contact
John Euphrat - (805) 781-5194

Project Description

One of the most critical pieces of property in the Dunes Complex is the Santa Maria River Estuary. Purchase and preservation of this property is extremely important to the Dunes Vision Statement prepared by The Nature Conservancy. The Coastal Conservancy has been awarded a grant of more than $400,000 from the water quality portion of the Guadalupe settlement to study the issues of the lower Santa Maria River including the estuary. Purchase of the properties not part of the oil field site must take place if this very important element of the dunes system is to be preserved. While no firm dollar figures are available, it is assumed that at least Si million to $4 million will be needed.

The properties that make up the river estuary are held by several different owners. In addition to the fees, there are several grazing leases that are currently active. It is very important to include the grazing leases so that the land can be retired from cattle grazing. The acreage of the most important lands is not known at this time. However, it is expected to range from 400 to 1,000 acres.

Nexus

The chronic spills and leaks from the oil field affected several different types of habitats. For many years, low level concentrations of petroleum hydrocarbons were found to be seeping into the Santa Maria River. This seepage, along with filling of river wetlands and cattle grazing, has had a detrimental effect on the river water quality and riparian corridor. The goal of this land purchase and restoration of these habitats to pre-leak condition is to improve both river water quality and the value of the riparian habitat.

Request

A rough estimate of $2,000 per acre seems to be reasonable. Therefore, the expected costs of purchasing these lands would be $800,000 - $2,000,000.

PROJECT SUMMARY
BLACK CANYON LAND ACQUISITION

Project Applicant
Land Conservancy of San Luis Obispo County.

Project Contact
Ray Belknap - (805) 544-9096

Project Description

The purpose of this project is to implement those recommendations of a recently adopted U.S. Fish and Wildlife Service Recovery Plan for the Marsh Sandwort *(Arenaria paludicola) and* Gambel's Watercress *(Rorippa sambelif)* that involve land acquisition. The Recovery Plan, which builds on recommendations made by he Land Conservancy in their 1992 Enhancement Plan, provides a comprehensive program for the recovery of these species. Several of the recommended actions that require immediate restoration have been included in the Dune Center Collaborative proposal. There is one recommendation included in the Plan, however, for which no budget is included. There is no budget for land acquisition, a recommendation made in 1992 Land Conservancy Enhancement Plan.

In the Enhancement Plan, the coastal Conservancy recommended the purchase of four properties in the Black Canyon region. The purchase was deemed necessary to protect the wetlands from sedimentation and to protect the quality of water in the wetlands. Sedimentation has been identified as the principal threat to the wetlands.

This proposal is to purchase two parcels in Black Canyon. The enhancement Plan called for the purchase of four parcels. We have commitment for a gift of one parcel. We have a commitment from the Regional Board to buy one more. This request is to purchase the remaining two parcels and complete the Black Canyon Enhancement Plan.

Nexus

A great deal of the damage caused by the spill is on the surface of the dunes. This includes the historical damage caused by roads and pipes leading to the wells that caused the damage as well as the damage that will be caused by excavation clean-up activities.

The sandwort and watercress are endangered species dependent on saturated wetland peat soils of coastal dune wetlands. The habitat of these species depends on high ground water quality and quantity. The diluent spill in the dune ground water basin and its associated cleanup has the potential to directly impact these species.

Request

This request is for $1,000,000 to complete implementation of the Black Lake Canyon Enhancement Plan and recommendations of the U.S. Fish and Wild Life Recovery Plan.

Appendix A
Criteria for Evaluating Restoration Project Concepts

The Department of Fish and Game and the California Coastal Conservancy (the Restoration Subcommittee) have used the evaluation criteria listed below to screen projects submitted by the Public Advisory Committee. The Public Advisory Committee advises the Restoration Subcommittee and serves as a focal point for community interests and concerns. Following public input and submission of any additional projects from the public, the following criteria will be used to select and prioritize preferred projects.

The list below represents the principal areas of evaluation by the Restoration Subcommittee. The criteria are not ranked in order of priority, except that the geographic nexus and the threshold criteria must be met before a project is reviewed using any of the remaining criteria.

(4) **Geographic Nexus**
Per the Settlement Agreement restoration projects shall be in the geographic area of San Luis Obispo County and/or Santa Barbara County, as near as possible to the Guadalupe Oil Field.

(5) Threshold Criteria

(a) **Technical feasibility of the alternative:** The project must be technically and procedurally sound. The Restoration Subcommittee will consider the level of uncertainty or risk involved in implementing the project. Proven track record demonstrating the success of projects utilizing a similar or identical restoration technique can be used to satisfy this evaluation standard.

(b) **Consistency with the restoration goals:** The proposed alternative must meet the Restoration Subcommittee's intent to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources or the services those resources provided. In addition, a project could provide compensation for the interim loss of those resources and services.

(c) **Compliance with laws:** The proposed alternatives must comply with all applicable laws.

(d) **Public health and safety:** The proposed alternatives cannot pose a threat to the health and safety of the public.

(6) **Additional Criteria**

(a) **Relationship to injured resources and services:** Projects that restore, rehabilitate, replace, enhance, or acquire the equivalent of the same or similar resources and services injured by the spill are preferred to projects that benefit other comparable resources or services. The Restoration Subcommittee considers the types of resources or services injured by the spill and the connection or nexus of project benefits to those injured services.

(b) **Avoidance of injury:** The proposed alternative should avoid or minimize adverse impacts to the environment and associated natural resources. The adverse impacts may have resulted from the original oil spill incident or may have caused in the future as collateral injuries when implementing, or as a result of implementing, the project alternative. The Restoration Subcommittee considers the avoidance of future short-term and long-term injuries as well as mitigating past injuries when evaluating project concepts,

(c) **Likelihood of success:** The Restoration. Subcommittee considers the potential for success and the level of expected return of resources and resource services. The Restoration Subcommittee also considers the ability to monitor and evaluate the success of the project and the ability to correct or adaptively manage a project over time.

(d) **Multiple benefits:** The Restoration Subcommittee considers the extent to which the proposed alternative benefits more than one natural resource or resource service. This can be measured in terms of the quality and associated quality of the types of natural resources or service benefits expected from the alternative.

(e) **Time to provide benefits:** The Restoration Subcommittee considers the time until benefits will be provided to the ecosystem and/or public.

(f) **Duration of Benefits:** The Restoration Subcommittee considers the expected duration of benefits from the proposed alternative.

(g) **Protection of alternative:** The Restoration Subcommittee considers the opportunities to protect the implemented alternative and resulting benefits over time through conservation easements, land acquisition, or other types of resources dedication.

(h) **Opportunities for collaboration:** The Restoration Subcommittee considers the possibility of matching funds, in-kind services, or volunteer assistance. Coordination with other ongoing or proposed projects is also considered here.

(i) **Benefits relative to costs:** The Restoration Subcommittee considers the relationship of expected project cost to the expected resource and service benefits from each alternative seeking the least costly (i.e., most cost efficient) means to deliver an equivalent amount of benefits.

(j) **Total cost and accuracy of estimate:** The Restoration Subcommittee evaluates the estimated total cost of each alternative and the probable validity of the estimate. The total cost estimate should include costs to design, implement, monitor, and manage the alternative. The validity of the cost estimate is evaluated based on the completeness, accuracy, and reliability of the methods used to estimate costs, as well as the track record of the person or entity submitting the cost estimate to accurately estimate costs.