February 1, 2008

Mr. Jeffrey S. Young, Chairman
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

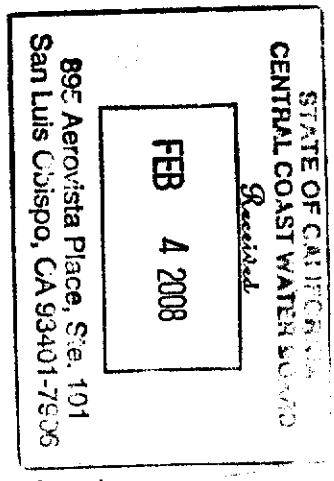
DUNES COLLABORATIVE
Partners in Stewardship

Re: Item No. 9 on February 7, 2008 agenda
Central Coast Regional Water Quality Control Board Hearing
Proposed Allocation of Guadalupe Settlement Funds

Dear Mr. Young:

Since October 2007, the Guadalupe-Nipomo Dunes Collaborative has been working with your staff to develop a suite of water quality-oriented projects that closely fit your Board's selection criteria for Guadalupe Settlement Fund projects. We note that our detailed project proposal submitted to your staff on December 14, 2007 was not included in the supplemental materials for agenda Item No. 9. Therefore, we are submitting our package directly to your Board for review and consideration.

The Dunes Collaborative is a partnership of federal, state, private, and non-profit organizations committed to the conservation and restoration of the Guadalupe-Nipomo Dunes and their associated watersheds. Partners include:



- Cachuma Resource Conservation District
- California State Parks Oceano District
- Center for Natural Lands Management
- Central Coast Salmon Enhancement
- Coastal San Luis Obispo Resource Conservation District
- County of San Luis Obispo
- County of Santa Barbara
- The Dunes Center
- The Land Conservancy of San Luis Obispo County
- Nipomo Native Gardens
- People for the Nipomo Dunes
- Regional Water Quality Control Board
- U.S. Fish and Wildlife Service - The Guadalupe-Nipomo Dunes National Wildlife Refuge
- Many other stakeholders and interested parties regularly participate in the Dunes Collaborative such as the City of Guadalupe, local landowners, and others

At a meeting with your staff on October 12, 2007, valuable suggestions were made regarding the types of projects that the Regional Board would support. It

was agreed that the kinds of projects being conducted by the Collaborative fit closely with the selection criteria developed and implemented by your Board. Working with your staff since that meeting, the Dunes Collaborative has developed a comprehensive assemblage of projects for consideration by your Board for funding from the Guadalupe Settlement Fund.

The projects in this package were subjected to a rigorous evaluation process. They were evaluated by the Collaborative using a matrix that included more than ten essential components, analyzing each project for each criterion, and ranking each project within each category. In addition to the criteria established for the settlement funds, we added three additional categories (targets impaired water body, readiness to proceed, and consistency with the blueprint) to further enhance our internal selection criteria based on input we heard from your staff. The ten ranking criteria we used are listed below.

- Water Quality Focus
- Geographic Nexus
- Spill Type or Violation
- Beneficial Use Protection
- Region-wide use/benefit
- Leveraged Funding
- Institutional Stability/Capacity
- Targets Impaired Water Body
- Readiness to Proceed
- Consistency with the Guadalupe Settlement Fund Blueprint

In keeping with our ecosystem management approach to resource protection in the Guadalupe-Nipomo Dunes, the Dunes Collaborative suite of projects includes individual projects in multiple watersheds that support the dunes complex. The watersheds represented (from north to south) are:

- Meadow Creek Watershed
- Oceano Lagoon Watershed
- Arroyo Grande Creek Watershed
- Nipomo Creek Watershed
- Oso Flaco Creek Watershed
- Santa Maria River Watershed

The project proposals are listed below in order of highest consistency with the selection criteria listed above. The project sponsor is also listed. Complete project descriptions and cost analyses including leveraged funding discussions and overall project costs are attached.

- Santa Maria River Estuary Enhancement and Management Plan Implementation (*The Dunes Center*)

- Oso Flaco Lakes and Watershed Management Plan (*California State Parks, Cachuma RCD, Coastal San Luis RCD*)
- The Dana Adobe Cultural Landscape Preservation Project: A Proposal for Land Acquisition, Restoration, and Community Participation (*The Land Conservancy of San Luis Obispo*)
- Rancho Guadalupe Dunes Preserve Fence and Trail Installation (*Center for Natural Lands Management*)
- Rancho Guadalupe Dunes Preserve – Biotic Surveys, Solomon Creek and Santa Maria Estuary (*Center for Natural Lands Management*)
- The Guadalupe-Nipomo Dunes National Wildlife Refuge South Fence Project (*United States Fish and Wildlife Service*)
- Arroyo Grande Creek Care Guide (*Central Coast Salmon Enhancement*)
- Tally Ho Sediment Reduction Project (*Coastal San Luis Resource Conservation District*)
- Newsome Springs Regional Drainage Plan Project (*City of Arroyo Grande*)
- Oceano Lagoon Water Quality and Biological Assessments and Management Actions (*California State Parks*)
- Pismo Lake Water Quality Assessment and Management Actions (*California State Parks*)

These project proposals encompass critically important work in five watersheds to be implemented by a partnership of organizations with extensive expertise, directly relevant experience, and proven success and accountability. Each of the organizations is committed to water quality stewardship and all of the work we are proposing directly contributes to water quality benefits, beneficial uses of water resources, and local and regional resource conservation.

The total grant request for the complete list of projects is $3,254,000. We respectfully request consideration by the Regional Water Quality Control Board of an allocation from the Guadalupe Settlement Fund Dunes Collaborative projects to implement some or all of this important work.

Sincerely yours,

Rey Monge, Co-Chair

Robert A. Hill, Co-Chair

December 14, 2007

Roger W. Briggs
Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place
San Luis Obispo, CA 93401

Re: Dunes Collaborative - Guadalupe Settlement Fund Project

Dear Mr. Briggs:

The Dunes Collaborative is a partnership of federal, state, private, and non-profit organizations committed to the conservation and restoration of the Guadalupe-Nipomo Dunes and their associated watersheds. Partners include (in alphabetical order):

- Cachuma Resource Conservation District
- California State Parks Oceano District
- Center for Natural Lands Management
- Central Coast Salmon Enhancement
- Coastal San Luis Obispo Resource Conservation District
- County of San Luis Obispo
- County of Santa Barbara
- The Dunes Center
- The Land Conservancy of San Luis Obispo County
- Nipomo Native Gardens
- People for the Nipomo Dunes
- Regional Water Quality Control Board
- U.S. Fish and Wildlife Service - The Guadalupe-Nipomo Dunes National Wildlife Refuge
- Many other stakeholders and interested parties regularly participate in the Dunes Collaborative such as the City of Guadalupe, local landowners, and others

At our meeting on October 12, 2007, you and your staff provided very valuable input and suggestions regarding the types of projects that the Regional Board sought to support and we agreed that the types of projects being conducted by the Collaborative fit closely with the selection criteria developed and implemented by the Regional Board. Working with your staff since that meeting, the Dunes Collaborative has developed and internally vetted a comprehensive assemblage of projects presented herein for consideration by the Regional Board for funding from the Regional Board's Guadalupe Settlement Funds.

P.O. Box 339 Guadalupe, CA 93434
(805) 343-2455 www.dunescollaborative.org

All of the projects that comprise this proposal are endorsed and presented by the Dunes Collaborative. Each project is described fully within the following pages and we encourage the Board to consider the merits of each project separately and collectively for funding. The projects integrate effectively as a whole, but each project can also rely exclusively on its own strength and value. We recognize that the Board may choose to fund some or all of the individual projects or provide partial funding at the Board's discretion and as prioritized by the Board in terms of consistency for use for the settlement funds. For implementation, it is our expectation that each individual project sponsor would contract directly with the Board for any specific project the Board approved for funding. However, if the Board would prefer that the Dunes Collaborative provide a project management role for overall oversight of the work within this proposal, that could be arranged.

After soliciting projects broadly from Collaborative members, the list of potential projects was thoroughly evaluated and reduced to those that met the rigorous criteria listed below. The Collaborative created an evaluation matrix that included more than ten essential components, analyzing each project for each criteria, and ranking each project within each category. Note that in addition to the criteria established for the settlement funds, we added three additional categories (targets impaired water body, readiness to proceed, and consistency with the blueprint) to further enhance our internal selection criteria based on input we heard from you and your staff. The ten ranking criteria used are listed below.

- Water Quality Focus
- Geographic Nexus
- Spill Type or Violation
- Beneficial Use Protection
- Region-wide use/benefit
- Leveraged Funding
- Institutional Stability/Capacity
- Targets Impaired Water Body
- Readiness to Proceed
- Consistency with the Guadalupe Settlement Fund Blueprint

In keeping with our ecosystem management approach to resource protection in the Guadalupe-Nipomo Dunes, the Dunes Collaborative Guadalupe Settlement Fund Project includes individual projects in multiple watersheds that support the dunes complex. The watersheds represented are (from north to south):

- Meadow Creek Watershed
- Oceano Lagoon Watershed
- Arroyo Grande Creek Watershed
- Nipomo Creek Watershed
- Oso Flaco Creek Watershed

- Santa Maria River Watershed

Based on our review process the component projects of this proposal are listed below in order of highest consistency with the selection criteria listed above. The project sponsor is also listed. The projects are further sorted by ranking within each watershed below with individual grant request amounts. Complete project descriptions and cost analyses including leveraged funding discussions and overall project costs are also included with this proposal on the individual project description pages. Please note that many of the projects were very close in ranking and, in some cases, projects were tied in terms of ranking number. As such, the list below should be considered a general hierarchy for the Board's consideration in its own review process.

- Santa Maria River Estuary Enhancement and Management Plan Implementation (*The Dunes Center*)
- Oso Flaco Lakes and Watershed Management Plan (*California State Parks, Cachuma RCD, Coastal San Luis RCD*)
- The Dana Adobe Cultural Landscape Preservation Project: A Proposal for Land Acquisition, Restoration, and Community Participation (*The Land Conservancy of San Luis Obispo*)
- Rancho Guadalupe Dunes Preserve Fence and Trail Installation (*Center for Natural Lands Management*)
- Rancho Guadalupe Dunes Preserve – Biotic Surveys, Solomon Creek and Santa Maria Estuary (*Center for Natural Lands Management*)
- The Guadalupe-Nipomo Dunes National Wildlife Refuge South Fence Project (*United States Fish and Wildlife Service*)
- Arroyo Grande Creek Care Guide (*Central Coast Salmon Enhancement*)
- Tally Ho Sediment Reduction Project (*Coastal San Luis Resource Conservation District*)
- Newsom Springs Regional Drainage Plan Project (*City of Arroyo Grande*)
- Oceano Lagoon Water Quality and Biological Assessments and Management Actions (*California State Parks*)
- Pismo Lake Water Quality Assessment and Management Actions (*California State Parks*)

Below the projects are listed in ranking order within each watershed. The watersheds are listed from north to south.

Meadow Creek Watershed

- Pismo Lake Water Quality Assessment and Management Actions ($120,000)
- Oceano Lagoon Water Quality and Biological Assessments and Management Actions ($120,000)

Arroyo Grande Creek Watershed

- Arroyo Grande Creek Care Guide ($9000)
- Tally Ho Sediment Reduction Project ($612,000)
- Newsome Springs Regional Drainage Plan Project ($711,000)

Nipomo Creek Watershed

- The Dana Adobe Cultural Landscape Preservation Project: A Proposal for Land Acquisition, Restoration, and Community Participation ($700,000)

Oso Flaco Creek Watershed

- Oso Flaco Lakes and Watershed Management Plan ($738,000)

Santa Maria River Watershed

- Santa Maria River Estuary Enhancement and Management Plan Implementation ($50,000)
- Rancho Guadalupe Dunes Preserve Fence and Trail Installation ($168,000)
- Rancho Guadalupe Dunes Preserve – Biotic Surveys, Solomon Creek and Santa Maria Estuary ($25,000)
- The Guadalupe-Nipomo Dunes National Wildlife Refuge South Fence Project ($64,000)

As is evident from the list of individual projects and project sponsors, the Dunes Collaborative Guadalupe Settlement Fund Project collectively encompasses critically important work in five watersheds to be implemented by a partnership of organizations with extensive expertise, directly relevant experience, and proven success and accountability. Each of the organizations is committed to water quality stewardship and all of the work proposed herein directly contributes to water quality benefits, beneficial uses of water resources, and local and regional resource conservation.

The total grant request for the Dunes Collaborative Guadalupe Settlement Fund Project is $3,254,000. We respectfully request that the Regional Water Quality Control Board Guadalupe Settlement Funds be allocated to the Dunes Collaborative Guadalupe Settlement Fund Project to implement this important work.

If you have questions regarding this request, please call Bob Hill of the Land Conservancy at 544-9096 or Kathie Matsuyama of the Dunes Center at 458-1604.

Sincerely,

Kathie L. Matsuyama, Administrator
Dunes Collaborative

Greg McGowan
Dunes Center Board of Directors

for
Andrew Zilke, District Superintendent
Oceano Dunes District
California State Parks Management

Jamie King, Manager
Rancho Guadalupe Dunes Preserve
Center for Natural Lands

Glenn M. Greenwald, Refuge Manager
U.S. Fish & Wildlife Service
Guadalupe-Nipomo Dunes National
Wildlife Refuge

Robert A. Hill, Conservation Director
Land Conservancy of San Luis Obispo
County

Christina Bird-Holenda
Friends of Nipomo Dunes

Larry Vierheilig, President
Nipomo Native Gardens

Stephnie Wald
Central Coast Salmon Enhancement

Julie Thomas
Coastal San Luis
Resource Conservation District

Project Proposal:

The Dunes Collaborative

Guadalupe Settlement Fund Project

Prepared for:

Mr. Roger Briggs, Executive Officer

Central Coast Regional Water Quality Control Board

895 Aerovista Place

San Luis Obispo, CA 93401

December 14, 2007

DUNES COLLABORATIVE WATER QUALITY PROJECTS
Santa Maria River
Estuary Enhancement and Management Plan Implementation

PROJECT PROPONENT:
Guadalupe-Nipomo Dunes Center
Kathie Matsuyama, RLA #2277
Watershed and Natural Resources Manager
P. O. Box 339, Guadalupe, CA 93434
(805)458-1604
(805)343-0442 Fax
kmatsuyama@dunescenter.org

PROJECT DESCRIPTION:
In March 2004, the Santa Maria River Estuary Enhancement Plan and Management Plan was completed. The plan was funded by the Regional Water Quality Control Board (RWQCB) through a grant to the State Coastal Conservancy using funds from the Unocal settlement agreement "for projects that will serve to enhance water quality and provide other enhancement benefits in the Guadalupe-Nipomo Dunes complex."

The plan serves as the basis for promoting and improving water quality, sediment transport, and ecological functions over the long-term, and improving erosion protection for adjacent high floodplain terraces that support cultivated fields. With input from private landowners and other stakeholders, the plan also provides feasible land use recommendations to ensure that compatible agricultural uses and natural resources functions are maintained for future generations.

Specifically, the plan identified ways to:

- Improve water quality in the study reach.
- Enhance physical and ecological processes while protecting important agricultural resources in the study reach from erosion and flooding.
- Improve habitat quality and quantity while also improving erosion protection along river terraces in the study reach that support urban or agricultural uses.
- Identify feasible management actions that can be cooperatively implemented by public and private land managers.
- Adaptively manage the resources as conditions change over time.
- Identify regulatory and associated permitting requirements for implementation of the preferred alternative recommendations and avoid imposing additional regulation or burden on other agencies or land owners as a result of the plan.

The plan identifies the existing conditions of and stresses on the natural resources and proposes feasible short-term and long-term enhancement and management actions to improve water quality and habitats in the study reach while protecting important and valuable agricultural resources from flooding and erosion.

Implementation of the plan is now needed. The Dunes Center has a history and strong current capacity to move the plan projects from the study phase into implementation. Through our existing partnership in the Dunes Collaborative, formulation of projects for implementation will be done with the technical assistance of the Natural Resources

Conservation Service, Coastal San Luis Resource Conservation District, Cachuma Resource Conservation District, County of Santa Barbara Flood Control District, RWQCB, Dunes Center, Dunes Collaborative, Center for Natural Lands Management, US Army Corps of Engineers, Santa Barbara County Water Agency, Santa Maria Valley Water Conservation District, City of Guadalupe, City of Santa Maria, City of Orcutt, willing landowners, and other watershed stakeholders.

The Dunes Center will review the previously reported existing conditions and assumptions for each of the 21 identified management actions and provide an assessment of consistency with current conditions. Through our strong established relationships with stakeholders and landowners, the Dunes Center will analyze and rank the proposed tasks in terms of their readiness to proceed. This process will involve an analysis of all implementation issues including permitting needs, access requirements, funding requirements, contractor availability, and other necessary conditions to facilitate initiation. This analysis will be summarized in text and table format for review by the RWQCB and the Dunes Collaborative to assist with the prioritization of projects for implementation.

The Dunes Center will subsequently identify priority projects for implementation and assist the project sponsors in seeking additional funding as necessary for the project. The Dunes Center will prepare a list of milestones to track implementation of the management actions and will oversee the progress and technical aspects of the projects. The Dunes Center will also provide technical support through implementation through in house resources (staff hours and technical documents in the library) and through limited outside consulting services if necessary.

WATER QUALITY COMPONENTS:

Specific water quality issues addressed by implementation of the Santa Maria River Estuary Enhancement and Management Plan include: nitrate (NO^3), dissolved oxygen (DO), temperature, salinity, and pH.

MEETS RWQCB CRITERIA

1. Water Quality Focus – Management actions for the lower Santa Maria River and Estuary address water quality in areas of:
    - Agricultural practices
    - Flood/erosion protection
    - Sediment transport and beach nourishment
    - Monitoring
    - Urban storm water runoff

2. Geographic Nexus – This project has direct geographic connection to the location of the original diluent contamination.

3. Waste Type of Violation (Petroleum Nexus) – The project is not directly related to a specific spill type or violation.

4. Beneficial Use Protection – The beneficial uses supported in the Santa Maria River Estuary and River include:
    - MUNICIPAL AND DOMESTIC SUPPLY (MUN)

- AGRICULTURAL SUPPLY (AGR)
- INDUSTRIAL SERVICE SUPPLY (IND)
- GROUND WATER RECHARGE (GWR)
- FRESHWATER REPLENISHMENT (FRSH)
- WATER CONTACT RECREATION (REC-1)
- NON-CONTACT WATER RECREATION (REC-2)
- COMMERCIAL AND SPORT FISHING (COMM)
- WARM FRESH WATER HABITAT (WARM)
- COLD FRESH WATER HABITAT (COLD)
- ESTUARINE HABITAT (EST)
- WILDLIFE HABITAT (WILD)
- PRESERVATION OF BIOLOGICAL HABITATS OF SPECIAL SIGNIFICANCE (BIOL)
- RARE, THREATENED, OR ENDANGERED SPECIES (RARE)
- MIGRATION OF AQUATIC ORGANISMS (MIGR)
- SPAWNING, REPRODUCTION, AND/OR EARLY DEVELOPMENT (SPWN)
- SHELLFISH HARVESTING (SHELL)

5. Institutional Stability and Capacity – The Guadalupe Nipomo Dunes Center has strong institutional stability and employs a professional watershed manager with skills and abilities highly suited to this project type. The original Santa Maria River Estuary Enhancement Plan was prepared for the Dunes Center.

6. Region-wide Use or Benefit – This project has the potential to provide strong benefit to the region.

7. Targets Impaired Water Body – The Santa Maria River is impaired pursuant to Section 303(d) for two pollutant constituents in February 2003: nitrates (NO^3) and fecal coliform. The Santa Maria River is currently ranked as a Low TMDL (Total Maximum Daily Load) priority waterbody; however, the RWQCB is required to estimate a completion date for each TMDL. The completion date for this TMDL is June 2015.

8. Readiness to Proceed – The project is ready to proceed immediately.

9. Consistency with Blueprint – Implementation of the Santa Maria River Watershed Management Plan is one of the specific projects listed on the "Guadalupe Settlement Fund Blueprint" developed by the RWQCB.

PROJECT ESTIMATED COST:

This project includes time for the pre-implementation analysis of the management actions proposed in the plan, coordination of implementation interests as described below, and for oversight and assistance through implementation. This project is estimated to cost $50,000. This includes $45,000 for labor (Dunes Center staff and limited professional consultants, if needed) plus $5,000 for materials and supplies. Labor costs include:

- Comprehensive analysis of 21 potential management actions identified in the Santa Maria River Estuary Enhancement and Management Plan
- Identification and prioritization of projects for implementation
- Development of milestones to measure implementation progress
- Solicitation of project sponsorships and assistance for sponsors in seeking additional funding as necessary
- Management of stakeholder, landowner, and agency coordination for implementation
- Technical assistance for project sponsors through implementation and reporting

PROJECT PARTNERS:

NRCS, Cachuma RCD, County of Santa Barbara Flood Control District, RWQCB, Dunes Center, Dunes Collaborative, CNLM, USACE, Santa Barbara County Water Agency, Santa Maria Valley Water Conservation District, City of Guadalupe, City of Santa Maria, City of Orcutt, willing landowners, watershed stakeholders.

DUNES COLLABORATIVE WATER QUALITY PROJECTS

PROJECT TITLE:

Oso Flaco Watershed And Oso Flaco Lakes Water Quality Assessment, Management, And Project Implementation

PROJECT PROPONENTS:

California Department of Parks and Recreation, Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449
Ronnie Glick, Senior Environmental Scientist
805-773-7180, Fax 805-773-7176
rglick@parks.ca.gov

Cachuma Resource Conservation District
920 East Stowell Road
Santa Maria, CA 93454
Tom Lockhart
805-928-9269 x 110, Fax 805-928-9644
tom.lockhart@ca.nacdnet.net

Coastal San Luis Resource Conservation District
545 Main St, Suite B-1
Morro Bay, CA 93442
Julie Thomas, South County Watershed Coordinator
805-471-9479, Fax: 805-772-4398
jthomas@coastalrcd.org

PROJECT DESCRIPTION:

The purpose of this phased project is to implement a number of efforts in the Oso Flaco watershed to improve the water quality and resource values of Oso Flaco Creek, Oso Flaco Lake, and Little Oso Flaco Lake.

Phase I A – Oso Flaco Lakes Non-Point Source Assessment and Management Plan

- Perform necessary field studies to quantify a water, nutrient, and sediment budget for the Oso Flaco Lakes (Little Oso Flaco Lake and Oso Flaco Lake). These studies will include sampling inflows and outflows, water column sampling within the lake, sampling of associated groundwater, and measuring flow rates.

- Perform a preliminary evaluation of pesticide impacts to the lakes by sampling inflows.

- Perform a topographic and bathymetric survey of the lake and environs for planning purposes and to establish a baseline for evaluating the effectiveness of management measures implemented around the lakes and in the watershed.

- Evaluate data collected as part of this study and compile data collected by others (CCAMP and others) to identify critical threats to beneficial uses of the lake.

- Work with the existing stakeholder groups to develop recommendations for management measures to protect these threatened uses, and to develop a plan to fund the recommended management measures.

- Develop an Oso Flaco Lakes Management Plan. This plan will focus on perpetuating the viability of these lakes as functioning wildlife habitat. It will incorporate water quality, sediment management, biological resource issues, and public access needs.

Phase I B – Oso Flaco Watershed – Develop an Agricultural Practices Workplan and Initiate a Pilot Tailwater Reduction Project

This phase is intended to follow up on the work that the Cachuma RCD completed in 2004 assessing nitrates and sediment inputs into the Oso Flaco Watershed. This work will complement the work of the Agricultural Watershed Coalition and other entities working on water quality improvements in the region.

- Continue with landowner outreach and collaboration to build on past progress in developing, installing, and monitoring the effectiveness of BMP's for agricultural lands.

- Provide seed money for a demonstration project (estimated at 160 acres or greater) reduce tailwater discharge from the watershed.

- Install flow devices at specific locations within the watershed to measure tailwater and storm flows.

- Analyze water quality parameters (sediment, pesticide, nutrients, fecal coliform) to measure the effectiveness of the demonstration project.

- Provide for staff time and engineering services to complete all identified tasks, including negotiating a Safe Harbors agreement with the United States Fish and Wildlife Service for ongoing operation and maintenance of the demonstration project

Phase II – Implementation of Specific Water Quality Projects

The following projects can be implemented in future years as funding and opportunities become available. These projects are not currently proposed for funding, rather they are intended to give the Regional Board a sampling of potential future projects in the Oso Flaco Watershed and at Oso Flaco Lakes.

- Implement the highest priority water quality projects that result from the Oso Flaco Lakes Water Quality Assessment and Management Plan.

- Implement a sediment basin/wetland management demonstration project designed to intercept and remove sediment inflows to Oso Flaco Lake.

- Repair and restore critical agricultural ditches to enhance ditch stability. This can be achieved through vegetation or engineered solutions (shotcrete, etc).

- Implement Best Management Practices on farmland to address specific water quality issues including fecal coliform, nutrient loads, sedimentation, and pesticide residue. Monitor results and adapt practices as dictated by results.

- Provide technical assistance to landowners on projects including engineering, project design, and facilitating Safe Harbor agreements with the United States Fish and Wildlife Service for ongoing operation and maintenance of the water quality projects.

WATER QUALITY COMPONENTS:

Coliform, nutrients, pesticides, sediment. Numerous Beneficial Uses are compromised in this water body. TMDL regulations are pending for coliform, pesticides, and nutrients (nitrate and un-ionized ammonia). Oso Flaco Lake and Oso Flaco Creek are on the Regional Water Quality Control Board's 303(d) list as an impaired waterbodies due to nitrate from agricultural nonpoint sources.

MEETS RWQCB CRITERIA:

1. Water Quality Focus – This project would assess water quality impairment in Oso Flaco Lake, Little Oso Flaco Lake, and Oso Flaco Creek with an emphasis on maintaining beneficial uses of the water bodies.

2. Geographic Nexus – Oso Flaco Lake and Oso Flaco Creek are significant water bodies in the Guadalupe Nipomo Dune Complex.

3. Waste Type or Violation (Petroleum Nexus) – Oso Flaco Lake and Oso Flaco Creek have not been impacted by petroleum waste.

4. Beneficial Use Protection – This project will assess water quality and contributing factors to water quality impairment and address specific threats to beneficial uses of the water bodies. The RWQCB Basin Plan lists municipal and domestic water supply, agricultural water supply, groundwater recharge, freshwater replenishment, water and non-water contact recreation, warm freshwater habitat, fishing, wildlife habitat, listed species habitat, and biological habitat of special significancei as beneficial uses of Oso Flaco Creek and Oso Flaco Lakes.

5. Institutional Stability and Capacity – The California Department of Parks and Recreation (State Parks) has owned and managed Oso Flaco Lake and a significant portion little Oso Flaco Lake for more than 25 years. State Parks has a track record of successfully implementing water quality improvement projects both locally and State-wide. The Coastal San Luis and Cachuma Resource Conservation Districts have a track record of implementing collaborative water quality projects in San Luis Obispo and Santa Barbara Counties. Additionally, the Cachuma RCD has a proven track record of implementing a comprehensive planning effort in the Oso Flaco watershed.

6. Leveraged Funding – This project leverages previous investments by State Parks and the Regional Board on Oso Flaco Lake. This project will be matched by direct and in-kind funds from State Parks. Additional matching funding can be secured from a variety of funding sources including the California Coastal Conservancy, Natural Resource Conservation Service, the United States Fish and Wildlife Service, and numerous other sources.

7. Region-wide Use or Benefit – This project will address water quality impacts in a significant water body in a watershed that is in 90% row crops and 10 % rangeland. This water body offers an excellent opportunity to study the impacts of the agricultural waiver on specific sources of water quality impairment. This information can be used throughout the Central Coast Region.

PROJECT ESTIMATED COST:

Phase IA – $328,000

• Field studies and sediment budget	$70,000
• Pesticide inflows	$21,000
• Topographic and bathymetric surveys	$20,000
• Evaluate existing data	$17,000
• Work with stakeholder group	$40,000
• Develop Management Plan	$160,000
TOTAL	$328,000.00

Phase IB – $400,000

• Landowner Outreach	$75,000
• Tailwater Discharge Demonstration	$210,000
• Flow Devices	$15,000
• Analyze Water Quality Parameters	$50,000
• Staff Time, Engineering, Technical Assistance	$50,000
TOTAL	$400,000.00

Phase II – For future consideration as projects become more defined and opportunities become available.

PROJECT PARTNERS:

Coastal San Luis Resource Conservation District, Cachuma Resource Conservation District, private landowners, and collaborative partners.

PROJECT READINESS:

Phases I A and I B are ready to implement, with an estimated 36 month duration.

Figures for Oso Flaco Lake Proposal

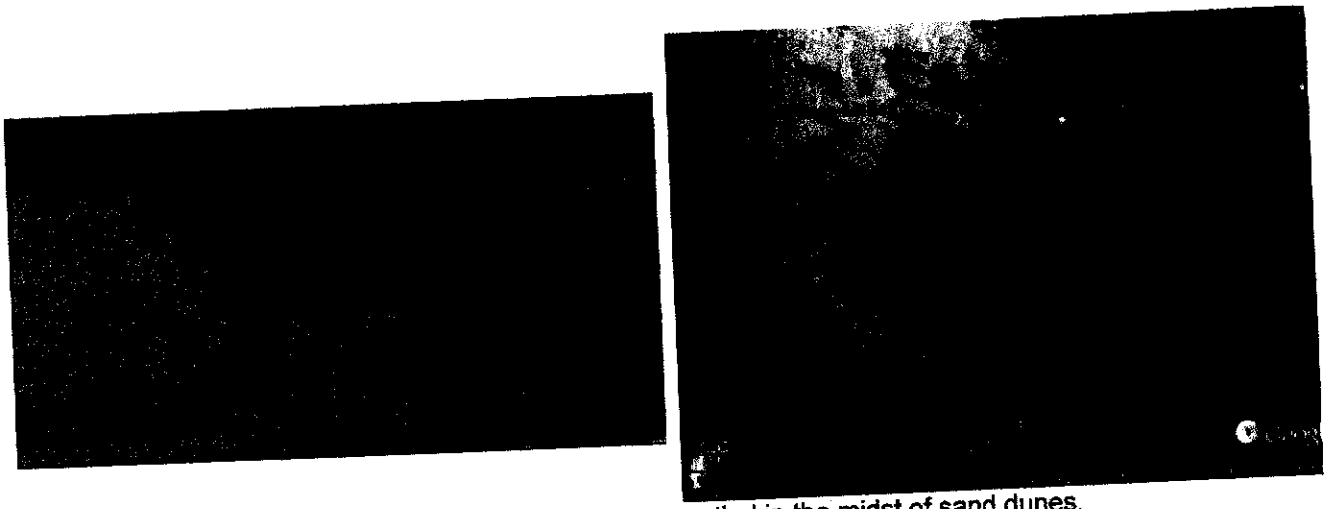


Figure 1. The Oso Flaco Lakes are nestled in the midst of sand dunes, only ¼ mile inland from the Pacific Ocean coastline. Extensive agricultural fields lie to the east.

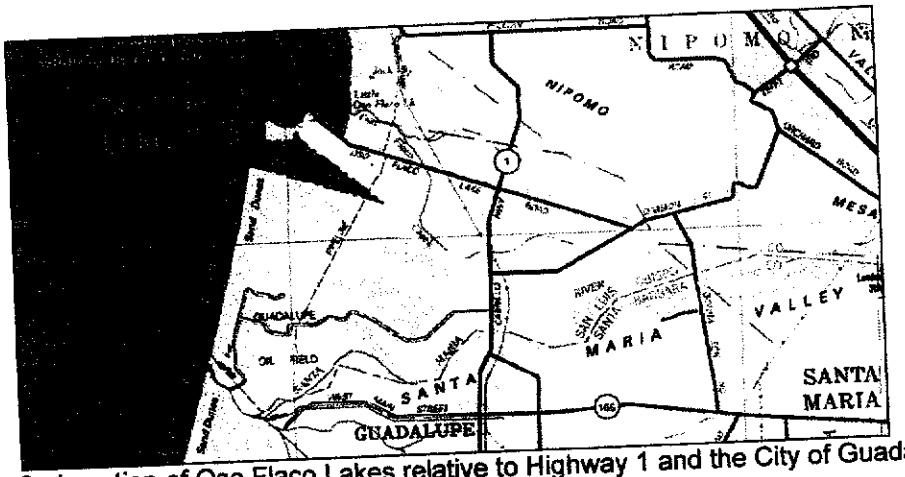


Figure 2. Location of Oso Flaco Lakes relative to Highway 1 and the City of Guadalupe.

Figure 3. Oso Flaco Lake

Figure 4. Second grade class on field trip to Oso Flaco Lake

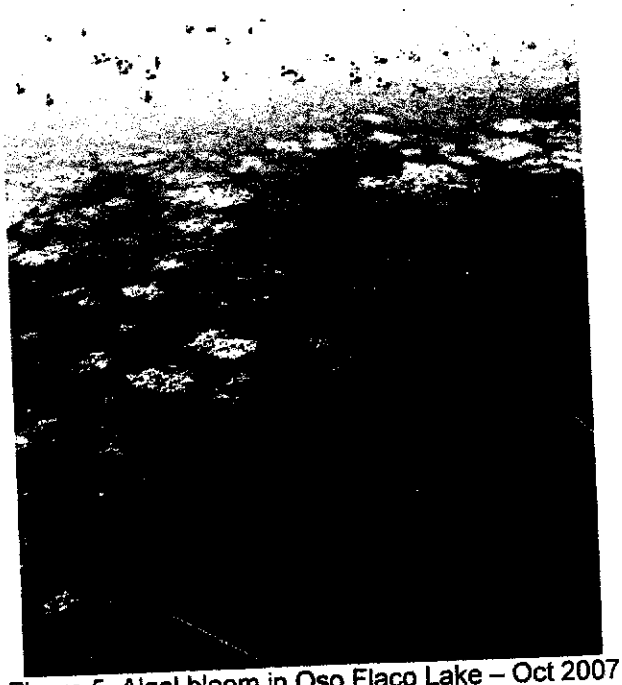
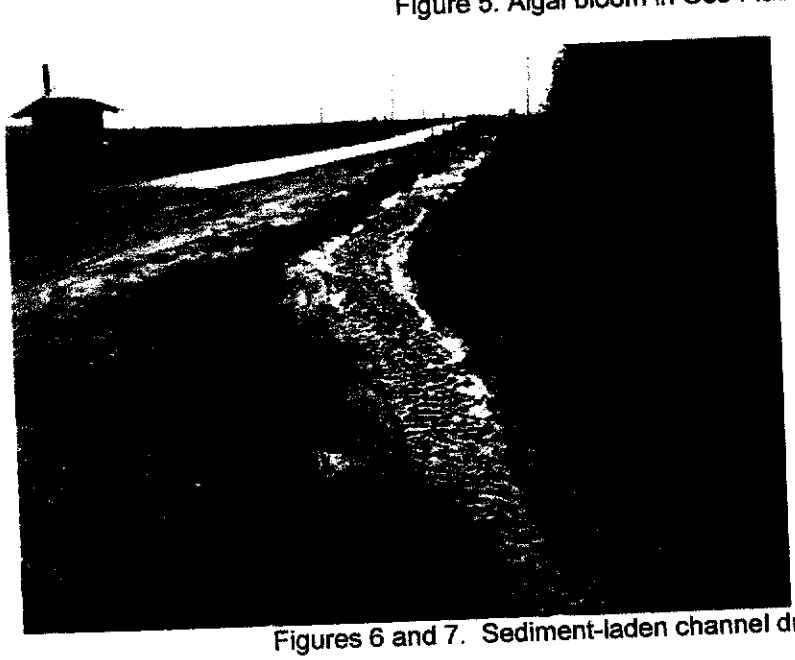
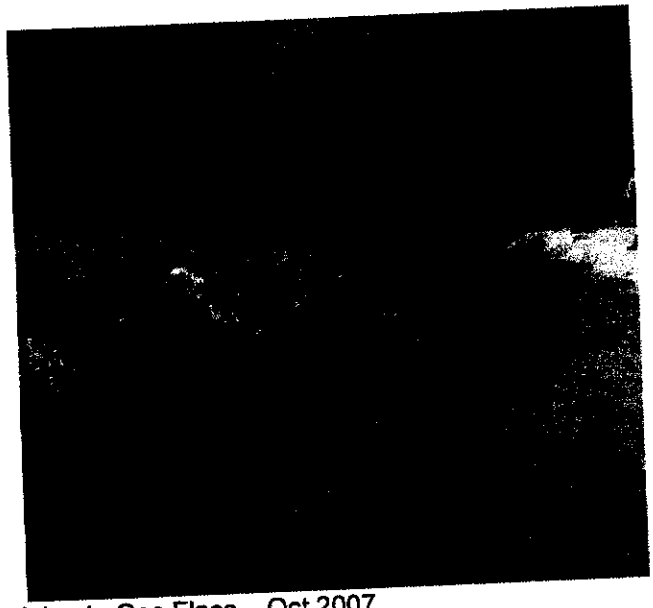


Figure 5. Algal bloom in Oso Flaco Lake – Oct 2007





Figures 6 and 7. Sediment-laden channel draining to Oso Flaco – Oct 2007.

Figure 8. Turbid water in drainage ditch.

Figure 9. Turbid runoff flowing into drainage ditch feeding Oso Flaco Creek.

Figures 10 and 11. Oso Flaco Creek reaching the Pacific Ocean.

DUNES COLLABORATIVE WATER QUALITY PROJECTS

The Dana Adobe Cultural Landscape Preservation Project: A Proposal for Land Acquisition, Restoration, and Community Participation

PROJECT PROPONENT:

The Land Conservancy of San Luis Obispo County
743 Pacific Street
San Luis Obispo, CA 93401
Attn: Robert A. Hill, Conservation Director
Phone: (805) 544-9096
Email: bobh@lcslo.org

PROJECT DESCRIPTION:

The Land Conservancy of San Luis Obispo County, as part of an informal partnership with the Dana Adobe Nipomo Amigos (DANA) and the County of San Luis Obispo Parks and Recreation and Public Works Departments, is seeking matching acquisition funding in the amount of **$700,000** from the Guadalupe Settlement Water Quality Trust to purchase a conservation easement interest in the 100-acre "Patterson" Property located in the Nipomo Creek watershed in southern San Luis Obispo County. The final purchase price for the property is approximately $2.5 million. The County would own the property, the Land Conservancy would hold the conservation easement, and DANA would lease and manage the property. The acquisition and permanent protection of this property would allow for the restoration of its riparian and wetland resources and would also provide for educational and public interpretation opportunities. The Nipomo Creek watershed system is a major tributary draining 25-square miles of land to the Santa Maria River, and the proposed activities would enable both direct and indirect water quality benefits to the areas impacted by the Guadalupe oil spill.

WATER QUALITY COMPONENTS:

The proposed project provides multiple public benefits, including both direct and indirect water quality benefits.

There are two creeks, Adobe Creek and Carillo Creek, which pass through the property before they tributary with the main stem of Nipomo Creek on the adjacent Grisingher Property. With the exception of a few scattered willow trees, both creeks are largely devoid of riparian vegetation due to the historical agricultural practices that have occurred on the property. The potential for restoration activities to enhance water quality through sediment and nutrient capture, stabilization of the stream banks, and through cattle exclusion fencing is enormous. Benefits to wildlife through stream restoration should also to be expected; the Nipomo Creek watershed has been documented as an important stop-over location for birds migrating along the Pacific Coast Fly-Way. The Federally threatened California red-legged frog (*Rana aurora darytonii*) was documented

on the main stem of Nipomo Creek adjacent to the property in June 2006. Enhanced water quality is important to aquatic and amphibian wildlife receptors such as the red-legged frog. Finally, the property also contains a small, seasonal wetland area in the northwestern corner of the site which would also be protected through fencing.

Acquisition of the Patterson Property provides the opportunity for permanent protection of it agricultural and open space uses, and to restore both of the streams that run through the site. Funding for this restoration is already approved. With both streams being currently devoid of almost all riparian vegetation, the primary focus of the restoration component of the project is on planting a diverse native riparian cover, with willow trees being the dominant and pioneer species. Over 10,000 native shrubs and 1,000 trees will be installed over a period of three years as part of the Land Conservancy's restoration project. An analysis undertaken as part of the recent *Nipomo Creek Watershed Management Plan* revealed that the entire watershed system is estimated to have only 38.7% riparian cover. Analysis also shows that approximately 25% of the watershed could be characterized as impervious. Efforts to restore native riparian vegetation would improve water quality through the capture of sediment and other nutrients. The secondary aim of the restoration is to stabilize several areas where streams banks are eroding and directly contributing sediment to the watershed system during heavier flow events. The acquisition of the property would also allow for the implementation of Best Management Practices for a ranching operation, including riparian exclusion fencing, rotational grazing, and the development of alternative cattle watering sources. Each of these three activities can greatly improve water quality from an agricultural property. Further, a recent State Coastal Conservancy study revealed that riparian exclusion fencing has been a component in a majority of successful riparian restoration projects. As Nipomo Creek is currently impaired for fecal coliform, excluding cattle from the riparian areas at this site directly addresses this concern.

The project also provides indirect long-term water quality benefits through the establishment of pilot program involving the nearby Nipomo High School. As the ultimate operators of the property, DANA proposes to implement an educational curriculum where high school students and other students would come to the property to learn Best Management Practices and other state-of–the-art ranching methods. This would take place through both the high school's agriculture department and the AP Environmental Science courses. Local 4H and FFA groups may also take advantage of this educational opportunity. Teachers and local ranchers have already been approached with respect to this pilot program and have pledged their support. By providing opportunities for youth to learn methods by which ranching and water quality protection can go hand in hand, its anticipated that the knowledge gained would be brought forward to other family ranching operations in the region. The property could also be made available for Farm and Ranch Short Courses. The vision is that the property would become an important demonstration site at a central watershed location that is open and available to the public for learning.

Regional Water Quality Control Board CCAMP monitoring results find that Nipomo Creek no longer supports the water contact recreation beneficial use and non-contact

water recreation beneficial use. In addition, the aquatic life beneficial use is currently listed as threatened. Nipomo Creek is also currently listed as an impaired body of water for fecal coliform with a start date of March 10, 2004. This listing also resulted from water quality sampling conducted during the 2000-2001 sampling rotation and led to the board's requirement of a TMDL. (The monitoring listing identification is 819 and the project identification is 596.) Based on the Regional Board's CCAMP monitoring, additional constituents of concern include:

- Ammonia as N (single sample indicates cause for concern)
- Chlorophyll a (single sample indicates cause for concern)
- Fecal coliform (not supporting some beneficial uses)
- Total coliform (not supporting some beneficial uses)
- Dissolved oxygen (partially supporting beneficial uses)
- Oxygen Saturation (not supporting some beneficial uses)
- pH (a single sample indicates cause for concern)

Nipomo Creek is proposed on the current 303(d) list of impaired water bodies list. The recommendation is to retain Nipomo Creek on the list for fecal coliform.

CONSISTENCY WITH OTHER FUNDING CRITERIA:

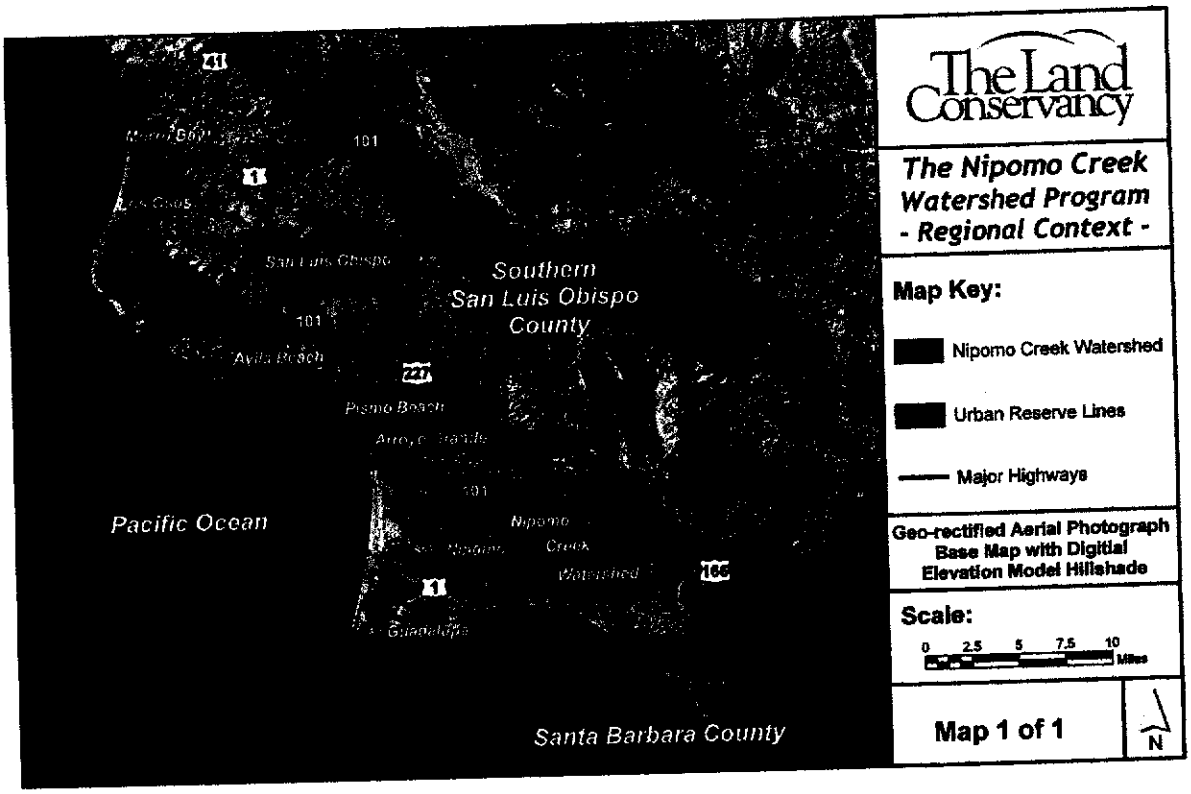
This section of the proposal is intended to demonstrate how the proposed project meets with Guadalupe Settlement Funding Criteria established by the Regional Water Quality Control Board and reflected in the July 11, 2003 staff report titled, *Blueprint for Expenditure of the Guadalupe Settlement Fund.* This document identifies seven criteria for identifying priority projects. These are: 1.) Water Quality Focus; 2.) Geographic Nexus; 3.) Waste Type or Violation; 4.) Beneficial Use Protection; 5.) Institutional Stability and Capacity; 6.) Leveraged Funding; and, 7.) Region-wide Use or Benefit. The foregoing provides more in-depth discussion of the proposed project relative to each criterion:

1) Water Quality Focus – See prior section, above.

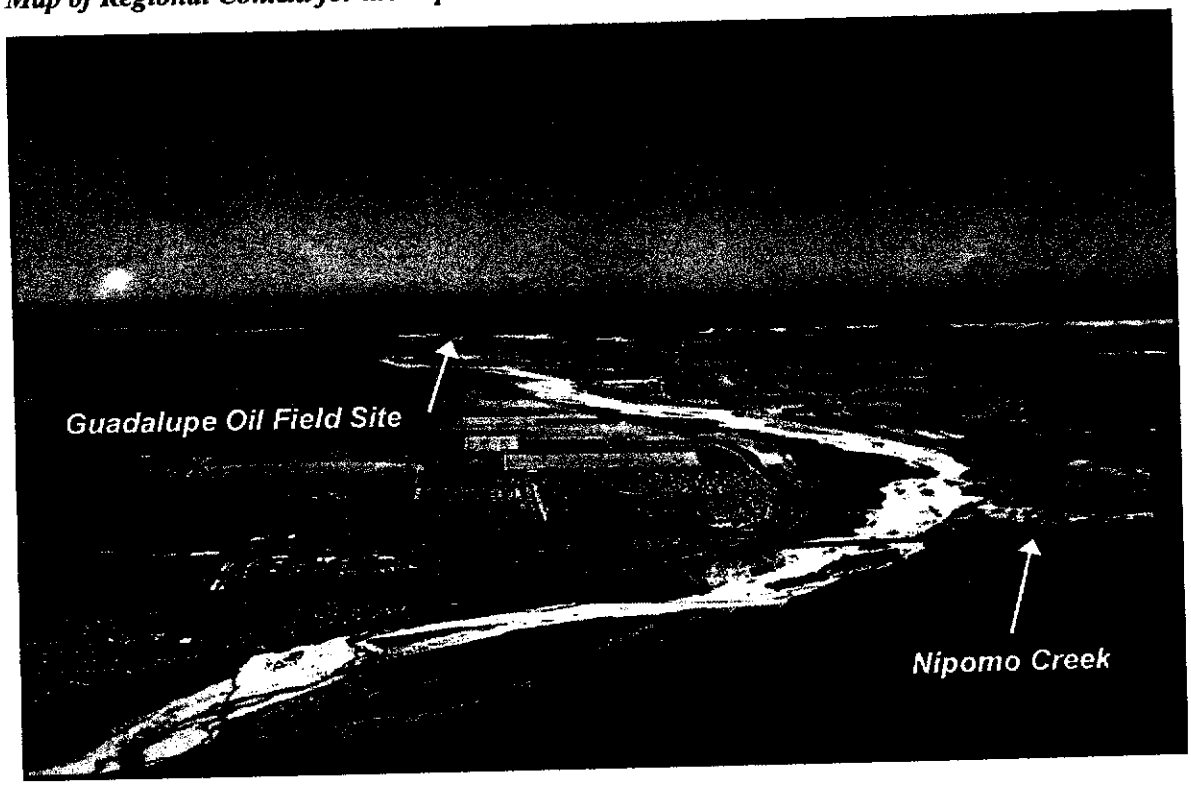
2) Geographic Nexus – The Patterson Property is located approximately ten miles from the Guadalupe Oil Field site. It is centrally located within the Nipomo Creek watershed. Nipomo Creek is the first major tributary to the Santa Maria River in San Luis Obispo County (with the Nipomo Mesa being essentially a stabilized sand dune, there are no other drainages from the north until Nipomo Creek). The Nipomo Creek watershed drains approximately 16,000 acres, or 25-square miles, of largely agricultural lands to the Santa Maria River before its outflow at the Guadalupe Nipomo Dunes. Projects in upstream watersheds can provide significant water quality benefits to the impacted area by protecting the source. The map and photo on the following pages show the proximity of

Nipomo Creek to the Guadalupe Nipomo Dunes, as well as its location within the larger region.

3) Waste Type of Violation (Petroleum Nexus) – We have learned of the presence of crude oil contamination which is impacting both the Patterson and Grisingher properties. ConocoPhillips, as successor to Unocal, operates line 300 through Nipomo Valley under the former Pacific Coast Railroad right-of-way. Line 300 is a 12 inch pipeline used to transmit crude oil to the Santa Maria Refinery. ConocoPhillips located petroleum impacted soil following an excavation prompted by anomalous smart pig data. The petroleum impacted soil is located directly beneath Nipomo Creek and extends laterally to both sides. Two documents titled, "Subsurface Investigation Report, Nipomo Creek Pipeline, Line 300" (January 06, 2006 and January 31, 2007) have been prepared by ConocoPhillips' consultant, Terra Pacific Group. These reports, collectively, delineate the entire contamination area, as well as report findings of soil samples, groundwater samples, and surface water samples. The contamination is approximately 330 feet in length, and 220 feet in width, at a depths ranging from 7 feet to 28 feet. The reports conclude with an initial recommendation to leave the contamination in place, as excavation of the sensitive riparian area would likely have more environmentally deleterious effects than if left in place, accompanied by long-term monitoring. The Central Coast Regional Water Quality Control Board is now acting as lead agency. Depending on their interpretation of the data in the recent reports, the California Department of Fish and Game, Office of Spill Prevention and Response may also become involved. No firm agreements regarding a resolution of the problem have been reached as of this date. **It is understood that ConocoPhillips is the responsible party and grant funds would not be used for restoration or mitigation of impacts that they are responsible for. However, if the lead agency determines that leaving the contamination in the ground is the best solution, then protection and restoration of this property could greatly alleviate the potential for further erosion and down-cutting of the channels, which may potentially result in future interaction between the contamination and surface water.**



Map of Regional Context for the Nipomo Creek Watershed



Overhead Photo of the Confluence of Nipomo Creek with the Santa Maria River

4) Beneficial Use Protection – See prior section, above.

5) Institutional Stability and Capacity – One could not ask for a more stable property owner than a government agency such as the County of San Luis Obispo. The Land Conservancy has been a proven land trust organization since 1984 and is well qualified to administer the conservation easement and restoration components of the proposed project. Further, the Land Conservancy has successfully partnered with the Regional Water Quality Control Board on numerous projects in recent years, including the recent acquisitions of the Choin and Rossi properties in Black Lake Canyon. The Dana Adobe Nipomo Amigos were incorporated in 1999 with the specific purpose of restoring the adobe structure itself as well as the surrounding landscape that is the subject of this proposal, and will act as lessee.

6) Leveraged Funding – This project will bring a significant match to the funds requested of the Regional Water Quality Control Board. The request of $700,000 will be matched by an additional $1.8 million in acquisition funds. Watershed planning and restoration projects total $1,171,275, with $350,000 specifically approved for this project. All other funds are secure.

7) Region-wide Use or Benefit – The project will provide local, regional, and statewide benefits. Some of these benefits include:

- Direct water quality benefits (local and regional)
- Indirect water quality benefits (local, regional, and perhaps statewide)
- Wildlife benefits (local, regional, and statewide)
- Prevention of rural development and urban sprawl benefits (local and regional)
- Historic preservation benefits (local, regional, statewide, and national)
- Visitor serving and educational benefits (local, regional, statewide, and national)

PROJECT ESTIMATED COST:

Land acquisition	$2,500,000
Restoration	$350,000
Total	$2,850,000*

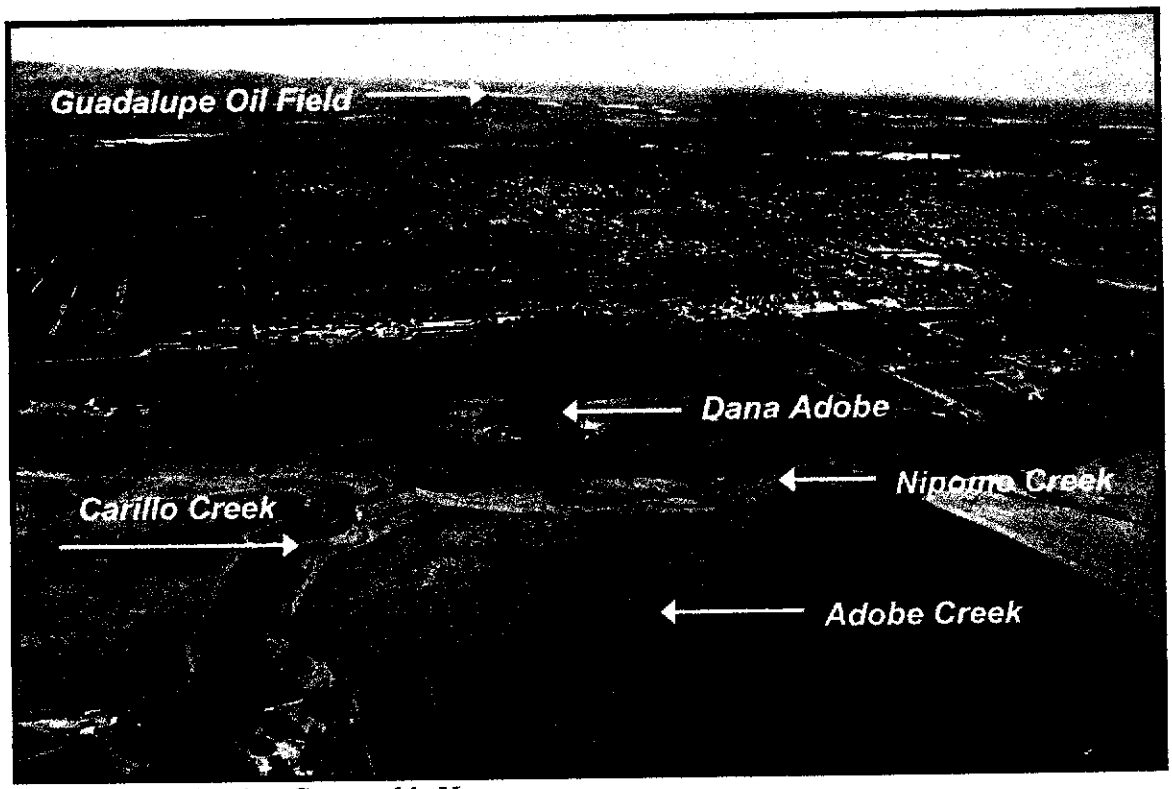
* The larger project also includes the acquisition of the adjacent "Grisingher Property" with an estimated purchase price of $1,200,000, subject to forthcoming appraisal.

PROJECT PARTNERS:

County Parks - Quimby Funds	$1,000,000	(Fee simple owner)
County Public Works - Mitigation Funds	$500,000	(Oak mitigation project)
Dana Adobe Nipomo Amigos	$300,000	(Long-term lessee & manager)
Guadalupe-Nipomo Dunes Restoration Trust	$350,000	(Restoration project)
Regional Water Quality Control Board (?)	***$700,000***	***(Conservation easement)***
Total	$2,850,000	

PROJECT READINESS:

Time is of the essence with this project. The final acquisition of the property must occur by June 2008 when interim bridge financing comes due. The restoration component of the project is also scheduled for summer 2008.



Project Area Showing Geographic Nexus

DUNES COLLABORATIVE WATER QUALITY PROJECTS
Rancho Guadalupe Dunes Fence and Trail Installation

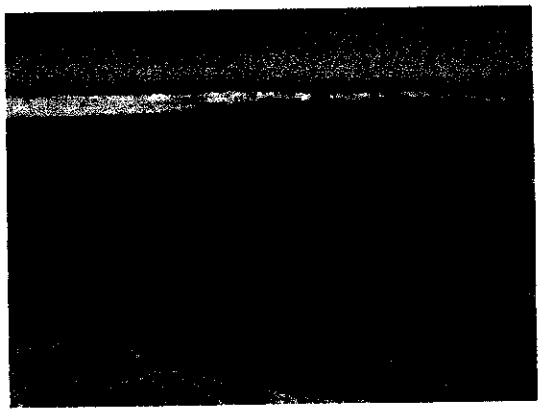
DUNES COLLABORATIVE WATER QUALITY PROJECTS

PROJECT PROPONENT: Center for Natural Lands Management (CNLM), Rancho Guadalupe Dunes Preserve and County of Santa Barbara Parks and Recreation Department. Contact: Jamie King, Preserve Manager, Rancho Guadalupe Dunes, 805.701.4517, jking@cnlm.org.

PROJECT DESCRIPTION:

The Santa Maria River Estuary forms part of the northern boundary for the Rancho Guadalupe Dunes Preserve (Preserve), a Santa Barbara County owned public park that has been managed by the Center for Natural Lands Management since 2000. The riparian habitats associated with the Santa Maria River are important resources as they are utilized by many listed and sensitive species, including the California least tern, western snowy plover, tidewater goby, California red-legged frog, Blochman's leafy daisy, crisp monardella, and dunedelion. Portions of the riparian habitat onsite are also critical habitat for La Graciosa thistle.

Unfortunately, these sensitive habitat and open water areas are being adversely impacted by cattle trespass and unregulated human intrusion resulting in direct impacts to water quality, species diversity, habitat degradation via siltation, ground disturbance, trash accumulation, and animal waste deposition (see adjacent photo). We therefore are proposing a program of fencing, signage, and trail installation along the Santa Maria floodplain onsite to minimize degradation of the its resource values and beneficial uses via cattle exclusion and redirecting public access to appropriate locations (Figure 1).



Cattle Exclusion Fencing. Cattle are currently trespassing into the Preserve from a privately-owned grazing pasture to the north owned by the Minetti/Maretti families. A barrier to fence construction along the property boundary has been the fact that any fence would have to cross a channel of the Santa Maria River twice. Discussions with the adjacent landowner (Tyke Minetti) and USFWS (Mary Root) have resulted in a plan to install approximately 1.5 miles of wildlife friendly 4-strand barbed wire fencing (bottom wire is smooth) across a section of the Preserve's northern boundary (see Figure 1). This alignment would exclude cattle from areas onsite with open water, and that are critical habitat of the La Graciosa thistle. As the fence would cross two sections of the Santa Maria River, it would be constructed in overlapping segments at the river crossings so that in the event the fence is damaged by flooding, only a small section will require repair or replacement (Figure 2). It should be noted that other landowners in the vicinity, specifically Chevron and the U.S..Fish and Wildlife National Wildlife Refuge are also looking to exclude cattle from their properties and the associated resources onsite (including water quality). Although these efforts do not result in the complete exclusion of cattle from the Santa Maria River estuary, it is a good first step towards that goal and establishing better relations with the long-term ranching interests in the area.

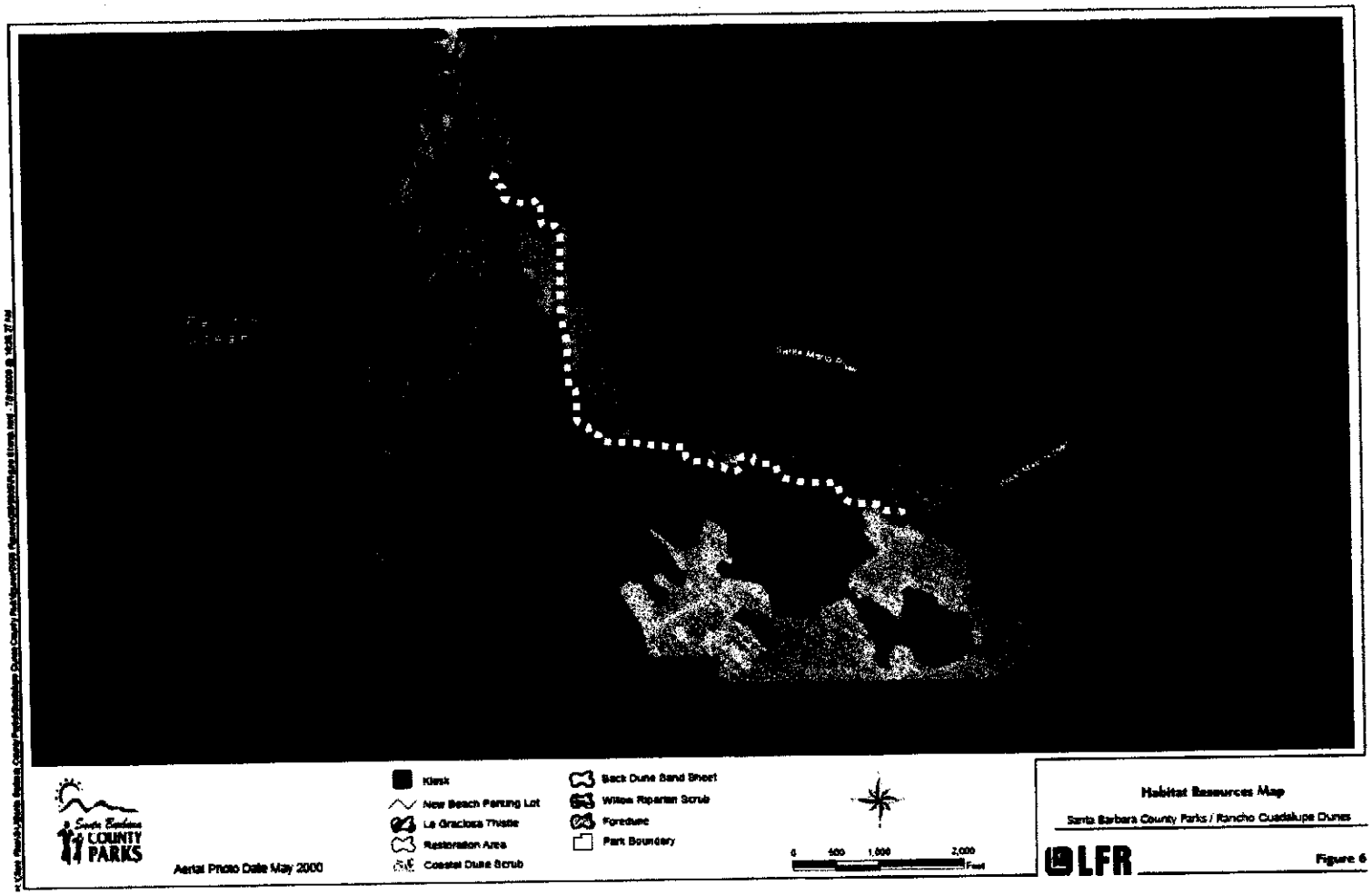
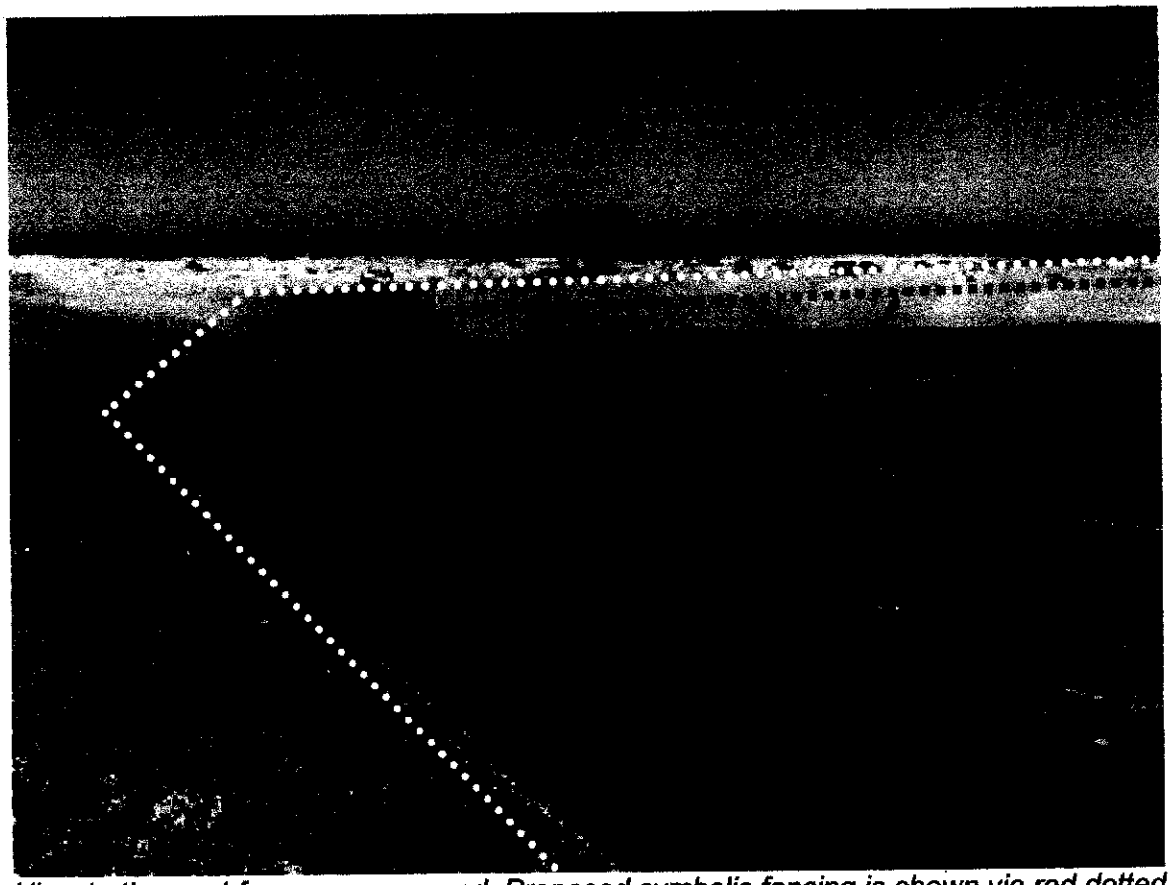


Figure 1: Solid red line is proposed barbed wire fence to exclude cattle from private land to north. Red dotted line is area requiring symbolic fencing to exclude public from wetland /riparian areas (La Graciosa thistle critical habitat). Dotted yellow line is proposed path for trail/education signage program to direct visitor usage near the Santa Maria River outside of sensitive resource areas. Areas of riparian/wetland/La Graciosa thistle critical habitat that do not have proposed fencing around them do not require it due to preexisting fencing or natural barriers (e.g. dense woodland).

Symbolic Fencing, Signage, and Trail Installation to Manage Human Traffic. The areas along the Santa Maria River are accessible outside of the bird nesting season (Oct. 1-March 1) to the estimated 70,000 preserve visitors per year. Because there is no symbolic fencing or signage in place in this area, damage to sensitive vegetation, sedimentation and trash accumulation typically occurs. We are therefore proposing to install approximately 3/4 mile of symbolic fencing (3/4" post and cable or post and rope) with "Do not enter"/interpretive signs posted every 100' or so to direct visitors away from these areas.

We are also proposing a trail with interpretive signage along the southwestern boundary of the estuary (and outside of La Graciosa thistle critical habitat) to direct visitors along an established route that borders these sensitive areas. This will allow public views into these areas to observe the resources present, but will deter actual access and the associated habitat and water quality degradation.



View to the west from preserve road. Proposed symbolic fencing is shown via red dotted line. Approx. alignment of proposed cattle exclusion fencing is shown with a solid red line. Note how it ties in to existing barbed-wire fence in foreground. Proposed interpretive trail with signage is shown via yellow dotted line.

As the Preserve is one of the few places along the Santa Maria River that is publicly accessible and provides an impressive overview of the Santa Maria River watershed and associated water resources, the Interpretive signage will focus on the following topics:

a. Estuary importance to ecosystem
b. Santa Maria River as part of greater watershed
c. Down stream issues and what you can do ("Good Neighbor Policies" for water quality)
d. Important/Unique biological resources
e. Hydrology/Geology

Prior to trail installation, a trail design would first be completed with public input and subsequently submitted to CDFG, USACE, RWQCB, and CCC as needed for permit receipt and approval. Interpretive signage and a brochure for marked locations along the trail would be designed and installed.

MEETS RWQCB CRITERIA:

1. Water Quality Focus: Yes. As discussed above, this project directly protects water quality by excluding the existing siltation, and trash and animal waste deposition directly in the Santa Maria River and adjacent areas that drain into it. The cattle exclusion fencing and trail components of this project are included within the Santa Maria River Estuary Enhancement Plan; this plan has been identified in RWCQB 2003 Guadalupe Settlement Fund Blueprint document as a priority.

2. Geographic Nexus: Yes. Located just south of the Guadalupe Oil fields

3. Waste Type or Violation (Petroleum Nexus). None known.

4. Beneficial Use Protection. Yes. See Table 1 below for applicable beneficial uses protected via project.

5. Institutional Stability and Capacity. Yes. *The Center for Natural Lands Management* (CNLM) is a nonprofit 501(c)(3), financially stable, organization created in 1990 with the mission of perpetual management of natural open-space areas, sensitive species, and their resident ecosystems. Currently, sixty-six Preserves, encompassing approximately 50,000 acres throughout California, are under the management of CNLM, with new Preserves added regularly. The Preserves vary in size from three to over 20,000 acres and are managed under direct ownership, conservation easements, or management contracts. CNLM has eighteen years of experience in restoring and managing lands for conservation purposes. Central to CNLM's mission and fundamental to its success are the principles of rigorous cost estimation for managing conservation areas in perpetuity and application of appropriate scientific information for conservation and restoration. CNLM has provided management for the Rancho Guadalupe Dunes Preserve since 2000 and continues in that capacity. CNLM's mission is to:

   - Conserve native species, their habitat and functioning ecosystems in perpetuity;
   - Own and/or manage lands in an ecologically beneficial manner consistent with local, state and federal environmental laws and with science-based stewardship;
   - Promote the conservation values of such lands through education;
   - Promote and facilitate uses of such lands by the public that Preserve the conservation values; and
   - Cooperate with public and private entities in their efforts to protect native species and their habitats for the public benefit.

6. Leveraged Funding. Yes. This includes an in-kind contribution by CNLM preparation of the CDFG 1603 permit for the cattle exclusion fencing ($3,500), and ongoing maintenance of the cattle fence, trail and signage by CNLM/County/adjacent landowner for an estimated $1,200-$6,000/year.

   A potential match for the trail and interpretive signage for $25,000-50,000 has been offered by the Dunes Collaborative Visitor Services Task Force.

7. Region-wide Use or Benefit. Yes. An estimated 70,000 visitors come to the preserve annually for passive recreation. Their experience at the preserve will benefit from improved water quality (swimmers/surfers near estuary mouth) and protection of the existing beneficial uses and resource

values for the portions of the Santa Maria River onsite. By providing interpretive signage, we will provide opportunities for the public to learn more about the resources both onsite and within the greater watershed and their connection with, and responsibility towards, them.

Table 1. Summary of Beneficial Uses Protection

Beneficial Use/Water Quality Objectives (per Basin Plan)	**Project Effect**
Beneficial Uses	
Warm Fresh Water Habitat (WARM) Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates. Wildlife Habitat (WILD)-Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources. Rare, Threatened, or Endangered Species (RARE)-Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered. Migration of Aquatic Organisms (MIGR)-Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish. Spawning, Reproduction, and/or Early Development (SPWN)- Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.	Project will exclude cattle and human adverse activities (trampling vegetation, stirring up sediment, defecation) from sensitive water and upland habitats onsite associated with the Santa Maria River. Sensitive biological resources documented or anticipated in or adjacent to these areas include: • Tidewater goby • California red-legged frog • La graciosa thistle and its critical habitat • Western snowy plover • California least tern • Blochman's leafy daisy • Crisp monardella • Dunedelion
Non-Contact Water Recreation (REC-2) Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.	Trail and human fencing project will allow controlled public access to the edges of these habitats for education and recreation purposes and thereby minimize adverse effects to sensitive biological and hydrological resources
Preservation of Biological Habitats of Special Significance (BIOL) Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.	Rancho Guadalupe Dunes is a County Preserve managed by the Center of Natural Lands Management. These projects will facilitate the protection and controlled public enjoyment and education of these resources.
Water Quality Objectives	
Floating Material - Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses. Suspended Material - Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses. Settleable Material - Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses. Sediment - The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Turbidity - Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.	Because the project only includes the portion of the Santa Maria River which is located on County property, surface water quality objectives are affected by adjacent and upstream uses. However, the propose project would remove defecation, animal and human trampling and sedimentation thereby decreasing turbidity and other floating material in this area and downstream from the section of the estuary covered by this project and is expected to at least incrementally improve the water quality objectives listed to the left.

PROJECT ESTIMATED COST:

The requested grant amount is for ~$168,000, which would cover installation of the cattle exclusion fencing, symbolic fencing (for visitors) and interpretive trail with associated signage and brochure. An additional $1,500-5,000 is anticipated every few years for maintenance of this infrastructure and would be provided by CNLM/County staff, the adjacent landowner (cattle fencing) or via other funding sources. See Table 2 for more details.

PROJECT PARTNERS:

Santa Barbara County Parks Department
USFWS, Partners for Fish and Wildlife
Adjacent Landowner representative/lessee, Tyke Minetti
Dunes Collaborative

Potential Partners:
Santa Barbara and San Luis Obispo Audubon Chapters (for trail and associated interpretive signs)

PROJECT READINESS: All work would be completed outside of the western snow plover and California least nesting season unless otherwise approved by USFWS and CDFG. Fencing for cattle and human traffic could be installed within one year of receipt of funds. Design and installation of the trail with interpretive signage is estimated to take 1.5-2 years due to the permitting process and seasonal closures associated with nesting birds.

Table 2. Estimated Project Costs

Task	#	Unit	Cost/Unit	Total
Cattle Exclusion Fencing				
Barbed Wire (1.5 miles)				
4-strand barbed wire (all materials/Installation)	7800	Feet	$3	$23,400
Signage (Every 100')	78	Sign	$7	$550
Sand Excavator Rental (Quinn Rentals)	10	Day Rental Rate	$500	$5,000
Subtotal				**$28,950**
Symbolic Fencing (~ 3,000')				
Post and Cable	2600	Linear Foot	$7	$18,200
Labor	96	Hours	$35	$3,360
Signage (Every 100')	30	Sign	$7	$195
Sand Excavator Rental (Quinn Rentals)	5	Day Rental Rate	$500	$2,500
Subtotal				**$24,255**
Trail Design & Installation				
Trail Design (Labor, contractor, includes GIS work)	160	Hours	$100	$16,000
Permits (Application/Fees/Coordination)				
CCC	1	Permit	$6,500	$6,500
CDFG 1603	1	Permit	$3,500	$3,500
USACE 404	1	Permit	$3,500	$3,500
RWQCB 401	1	Permit	$4,000	$4,000
Installation (per mile, CCC Crew + equipment)	1	Mile	$25,000	$25,000
Interpretive Signage-1 large sign at entrance, 2 panels along trail), interpretive brochure for numbered areas.				
Design	120	Hours	$75	$9,000
Brochure Printing	3	2000 copies	$300	$900
Materials/Installation	3	Display	$1,500	$4,500
Subtotal				**$72,900**
TOTAL				**$123,222**
Field Tools/Vehicle Use/Office Supplies/Postage				**$1,850**
10% Contingency				**$12,322**
Project Management/Administrative				**$30,806**
GRAND TOTAL				**$168,199**

In-Kind Contributions	
CDFG Permit Preparation for Cattle Fencing (CNLM/County)	$3,500 one time
Annual Trail, Signage Maintenance and Brochure Printing (CNLM/County)	$800-4,000 annually
Annual Fence Repair/Maintenance (CNLM/Minetti)	$350-2,000 annually
Potential Matching Funds	
Funding for Trail/Interpretive Signage Component (Dunes Collaborative)*	25,000-50,000

** If funding received by Dunes Collaborative, project cost would be reduced by the received amount.*

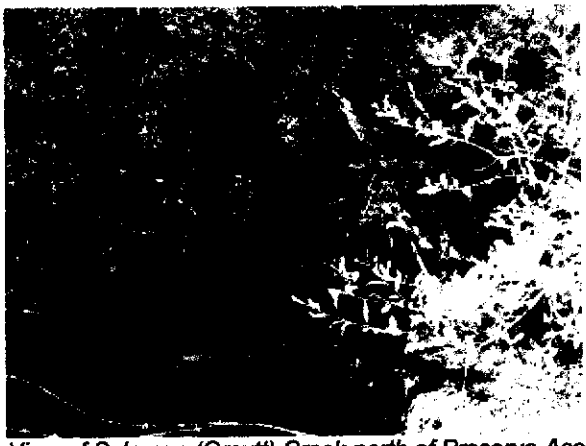
DUNES COLLABORATIVE WATER QUALITY PROJECTS
Rancho Guadalupe Dunes Preserve, Biotic Surveys, Solomon Creek & Santa Maria River Estuary

DUNES COLLABORATIVE WATER QUALITY PROJECTS

PROJECT PROPONENT: Center for Natural Lands Management (CNLM), Rancho Guadalupe Dunes Preserve and County of Santa Barbara Parks and Recreation Department. Contact: Jamie King, Preserve Manager, Rancho Guadalupe Dunes, 805.701.4517, jking@cnlm.org.

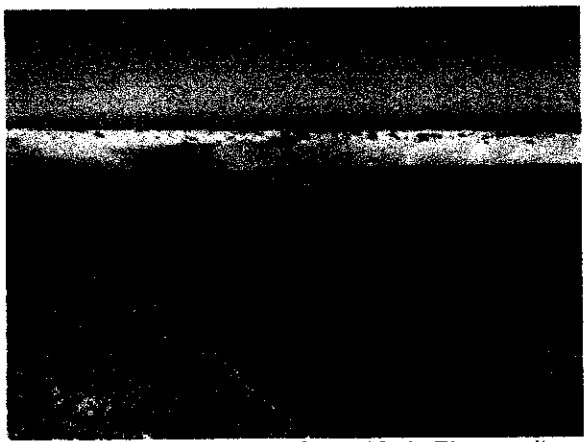
PROJECT DESCRIPTION & WATER QUALITY COMPONENTS:

Biotic Surveys for CRLF and Other Sensitive Species. Solomon Creek has been suggested as a key contributor to water quality issues associated with the Santa Maria River estuary (RWQCB staff *pers. comm.*, Santa Maria River Estuary and Enhancement Plan (SMREEP)). A section of Solomon Creek crosses through the RGDP. Multiple water quality and flood control improvement projects have been suggested for Solomon Creek and the Santa Maria River estuary from the SMREEP and other sources. These range from periodic cleaning of the channel and culverts, to removal of willow areas that block flood waters, to creation of a sediment capture area at the confluence with the Santa Maria River, a 303(d) river. Although these projects would benefit water quality and flooding concerns over the long-term, we can anticipate at least temporary adverse impacts to the biological resources present.



View of Solomon (Orcutt) Creek north of Preserve Access Road

View of Solomon (Orcutt) Creek south of Preserve Access Road



View to west of portions of Santa Maria River onsite.

Although the water quality of the creek and Santa Maria River estuary is being assessed via RWQCB CCAMP and Agricultural waiver programs, no information is readily available on the sensitive biotic resources that may be present in this area, are being affected by water quality issues, or that could be affected by future proposed activities. For example, the listed California red-legged frog (CRLF) has been identified within a ½ mile of this area and is anticipated onsite (RGDP Draft HCP, 2007); however no USFWS protocol surveys have been conducted to confirm its presence. La Graciosa thistle critical habitat has also been identified onsite, but it is unclear whether the species is present within the riparian areas identified in the above figure. We therefore propose to complete the following baseline surveys for an approximately 60 -acre riparian/wetland habitat area, where future water quality/flood control projects are anticipated to occur:

1) Conduct a USFWS CRLF protocol survey (which includes CNDDB review, habitat assessment and 6-8 survey bouts) within areas that are suitable habitat for CRLF within the preserve. Surveys will be conducted by Preserve Manager Jamie L. King, M.S. with support for night surveys and as needed by preserve staff. Ms. King has the requisite experience to conduct these surveys. Consulting biologist use will be limited. We will also note any deformed tadpoles or other signs of adverse impacts on biotic resources that may be associated with water quality issues onsite.
2) Survey riparian areas associated with Solomon Creek and Santa Maria River estuary for vegetation and wildlife from Spring-Fall (at least four bouts to capture the Spring, Early Summer, Summer-Fall blooming periods). The goal of the surveys is to provide baseline biological information for the riparian areas onsite, specifically species presence/absence and the extent of invasive vegetation present.
3) Map findings via GIS and summarize findings in report to be provided to RGDP, County of Santa Barbara, RWQCB, and as appropriate, project proponents.

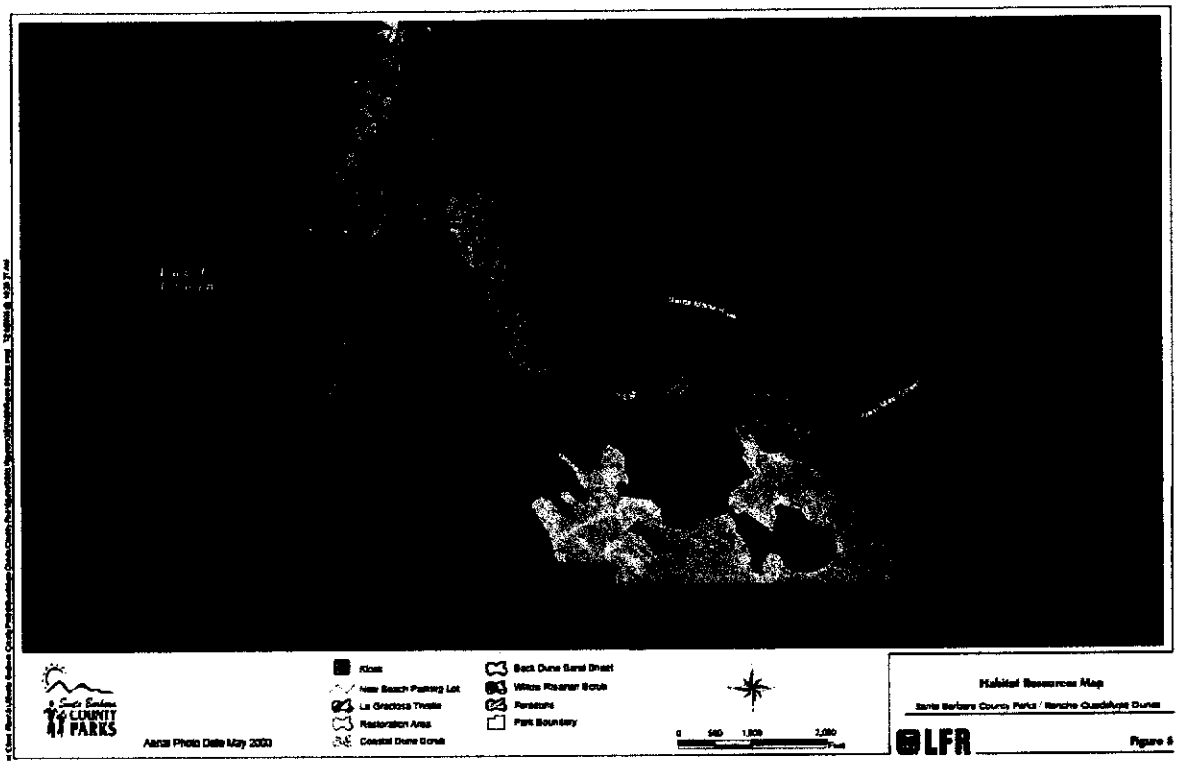
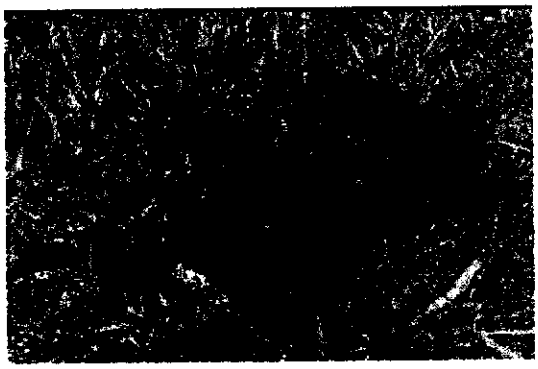


Figure 1: Red arrows show polygons (labeled La Graciosa thistle and willow riparian scrub habitats) that need baseline biological surveys as these are areas are associated with projects proposed in Solomon Creek and the Santa Maria River.

MEETS RWQCB CRITERIA:



1. Water Quality Focus : Yes as discussed above. Involves biotic baseline surveys for Santa Maria River (on 303(d) list) and Solomon Creek.

2. Geographic Nexus: Yes. Located just south of the Guadalupe Oil fields

3. Waste Type or Violation (Petroleum Nexus). None known.

4. Beneficial Use Protection. Yes. See Table 1 below for applicable beneficial uses protected via project.

5. Institutional Stability and Capacity. Yes. *The Center for Natural Lands Management* (CNLM) is a nonprofit 501(c)(3), financially stable, organization created in 1990 with the mission of perpetual management of natural open-space areas, sensitive species, and their resident ecosystems. Currently, sixty-six Preserves, encompassing approximately 50,000 acres throughout California, are under the management of CNLM, with new Preserves added regularly. The Preserves vary in size from three to over 20,000 acres and are managed under direct ownership, conservation easements, or management contracts. CNLM has eighteen years of experience in restoring and managing lands for conservation purposes. Central to CNLM's mission and fundamental to its success are the principles of rigorous cost estimation for managing conservation areas in perpetuity and application of appropriate scientific information for conservation and restoration. CNLM has provided management for the Rancho Guadalupe Dunes Preserve since 2000 and continues in that capacity. CNLM's mission is to:

- Conserve native species, their habitat and functioning ecosystems in perpetuity;
- Own and/or manage lands in an ecologically beneficial manner consistent with local, state and federal environmental laws and with science-based stewardship;
- Promote the conservation values of such lands through education;
- Promote and facilitate uses of such lands by the public that Preserve the conservation values; and
- Cooperate with public and private entities in their efforts to protect native species and their habitats for the public benefit.

6. Leveraged Funding. Yes. This project includes in-kind contributions of $6,000. Work would be conducted by the preserve manager, Jamie King, M.S, who has 10 years of experience in biological surveys with limited support by consultants, thus minimizing costs.

7. Region-wide Use or Benefit. Yes. An estimated 70,000 visitors come to the preserve annually. Potential water quality improvement activities are also being considered for Santa Maria River and Solomon Creek. It is therefore vital to understand what resources we have onsite so we can best protect them during implementation of proposed water quality and flood control projects.

Table 1. Summary of Beneficial Uses Protection

Beneficial Use/Water Quality Objectives (per Basin Plan)	Project Effect
Beneficial Uses	
Warm Fresh Water Habitat (WARM) Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates. Wildlife Habitat (WILD)-Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources. Rare, Threatened, or Endangered Species (RARE)-Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered. Migration of Aquatic Organisms (MIGR)-Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish. Spawning, Reproduction, and/or Early Development (SPWN)- Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.	Project characterizes the habitat, identifies the presence of invasive species, and determines the presence/likelihood of presence of the special-status species in portions of the Santa Maria River and Solomon Creek onsite, which include, but are not limited to, the following: • Tidewater goby • California red-legged frog • La graciosa thistle and its critical habitat • Western snowy plover • California least tern • Blochman's leafy daisy • Crisp monardella • Dunedelion
Non-Contact Water Recreation (REC-2) Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.	Project will help us clarify what resources are present and thus appropriate recreation in these areas.
Preservation of Biological Habitats of Special Significance (BIOL) Uses of water that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection.	Rancho Guadalupe Dunes is a County Preserve managed by the Center of Natural Lands Management. This project will provide baseline information on the biological resources present in the project area, and therefore allow us to determine how best to manage them.

PROJECT ESTIMATED COST:

We estimate the proposed project will cost approximately $31,500. As an estimated $6,000 will be available as in-kind contributions, we are requesting $25,500. Please see Table 2 below for more details.

PROJECT PARTNERS:

Santa Barbara County Parks Department
Adjacent Landowner, Tyke Minetti
Dunes Collaborative

Potential Partners:
USFWS NRS

PROJECT READINESS: The project is ready to be implemented immediately and would be completed within one year of funding. Field work would be completed between Jan-Sept with reporting completed by the December. A western snowy plover/California least tern monitor would be utilized for field work during the nesting season within the species habitat.

Table 2 Estimated Project Costs

Tasks	REQUESTED GRANT BUDGET						IN KIND CONTRIBUTION	
	Cost	Hours	Preserve Mgr. $65/hr.	Lead Rngr. $40/hr.	Consultant $85/hr.	Supply Cost	Cost	Source
Task 1 - CRLF Habitat Assessment/Protocol Surveys								
CNDDB Search/GIS Review	$130	2	2				$100	CNDDB Rarefind
USFWS Site Assessment Report/Coord.	$390	6	6				$100	CNLM staff time (QA/QC)
Protocol survey (8 bouts)	$5,720	92	60	20	12			
Field Supplies: waders (2), headlamps (2), camera (1), waterproof notebook, arial photos	$800					$800	$200	
GIS Mapping (GIS unit-8 days)	$520		8				$1,500	CNLM equip./GIS software use (via Dunes Collab/USFWS)
USFWS Report/Coord.	$1,300	20	20				$200	CNLM staff time (QA/QC)
Travel	$400					$400		
Subtotal	$9,260						$2,100	
Task 2 - Baseline Vegetation/Wildlife Surveys								
4 Survey Bouts/Species Identifications	$3,450	50	40		10		$1,300	CNLM staff time
Biological Monitor (during nesting season)	$2,800					$2,800		
Field Supplies/Topographic layers	$100					$100	$200	CNLM supplies
GIS mapping	$780	12	12				$600	CNLM staff time
Report Preparation	$3,830	22	22			$2,400		
Travel	$150					$150	$50	CNLM vehicle use
Subtotal	$11,110						$2,150	
Contingency (10%)	$2,037							
Administrative (15%)	$3,056						$1,833	CNLM staff time/resources
TOTAL ESTIMATE	*$25,463*						*$6,083*	

DUNES COLLABORATIVE WATER QUALITY PROJECTS

Refuge South Fence Project

PROJECT PROPONENTS:

Project Administrative Coordinator:

Kathie Matsuyama
Acting Executive Director /
Watershed Coordinator
Dunes Center
(805) 458-1604
kmatsuyama @dunescenter.org

Project Technical Coordinator:

Glenn Greenwald
Wildlife Refuge Manager
U.S. Fish & Wildlife Service
Guadalupe-Nipomo Dunes NWR
(805) 343-9151
glenn_greenwald @fws.gov

PROJECT DESCRIPTION:

Cattle are currently trespassing onto the Guadalupe-Nipomo Dunes National Wildlife Refuge (Refuge). These cattle tend to congregate in wetland habitats of the refuge where they lower water quality, graze and trample vegetation, and cause pond bank erosion. The proposed project seeks to construct a wildlife–friendly barbed wire fence across the southern boundary of the Refuge to exclude cattle from more than 150 acres of sensitive wetlands.

The proposed fence would connect to the existing East Fence in the southeast corner of the Refuge. From this point, the proposed fence line would be constructed westward about 16,000 feet towards the ocean (Fig. 1). The fence would be constructed with a wildlife-friendly design. This design would include the following basic components: four strands of wire, with barbed wire on the top three strands and smooth-strand (barbless) wire on the bottom strand. The top wire would be placed 48 inches from the ground, while the bottom wire would be placed 16 inches from the ground. Such a design facilitates wildlife to jump over, crawl under, or crawl through the fence line, while restricting the passage of cattle.

WATER QUALITY COMPONENTS:

The proposed fence would eliminate cattle trespass on the Refuge. Elimination of cattle on the Refuge would prevent cattle from wading into more than 60 sensitive swale, marsh, and pond habitats which cover more than 150 acres. A few months after cattle removal, water quality in these marshes and ponds would likely improve through natural attenuation processes. By removing cattle from Refuge ponds and marshes, we would expect an increase in nighttime dissolved oxygen levels and a lowering of such nutrients as phosphates and nitrates. Further, we would expect that a lowering of total and fecal coliform bacteria levels would also ensue.

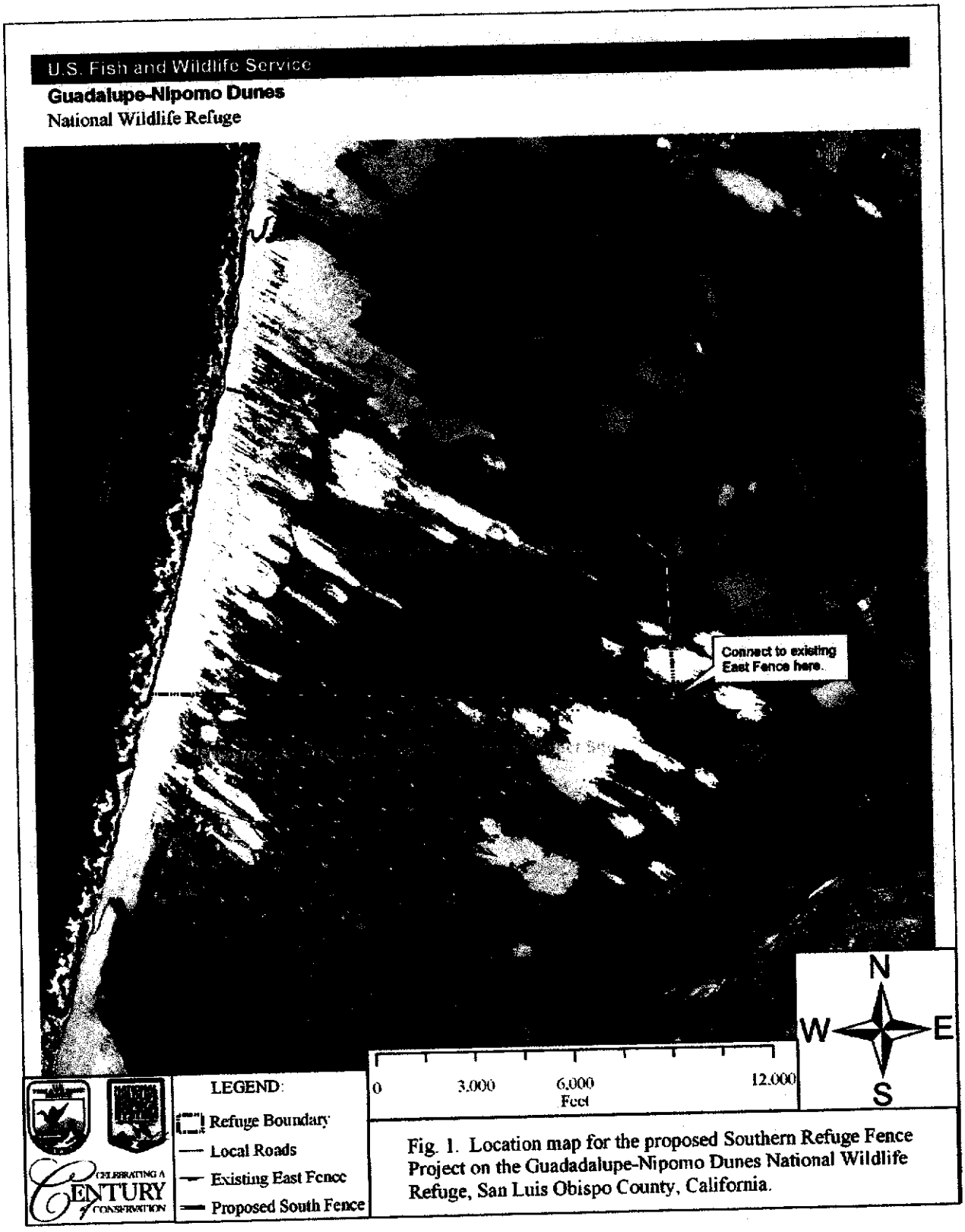
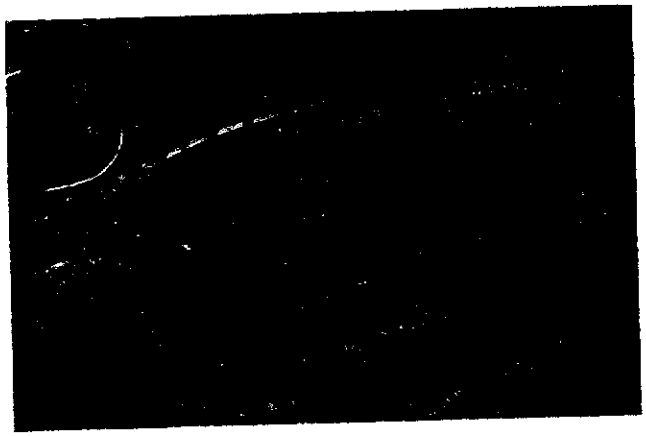


Fig. 1. Location map for the proposed Southern Refuge Fence Project on the Guadadalupe-Nipomo Dunes National Wildlife Refuge, San Luis Obispo County, California.

In addition to protecting sensitive wetlands and providing water quality improvements, the fence would also provide protection to more than 90 imperiled species of plants and animals. In particular, the proposed fence would serve to protect several populations of the federally endangered La Graciosa thistle, marsh sandwort, and Gambel's watercress, and the federally threatened California red-legged frog from the effects of poor water quality and the onslaught of cattle grazing and trampling.

Trespassing cattle are causing several severe water quality and wildlife habitat problems on the Refuge, primarily related to eutrophication. The cattle pictured here are trespassing on the Refuge in Four-Pond Valley, in proximity to prime habitat for several federally listed species.



Over enrichment of water bodies by cattle on the Refuge are causing high nutrient loading, aquatic and emergent vegetation overgrowth, low dissolved oxygen levels, high hydrogen sulfide levels, high coliform bacteria levels, and increased pond bank erosion. Several imperiled species are adversely affected by these water quality problems, including the egg masses, tadpoles, juveniles, and adults of the federally threatened California red-legged frog. Juvenile (left photo) and adult (right photo) California red-legged frogs are pictured above.

MEETS RWQCB CRITERIA:

1) **Water Quality Focus.** The primary goal of this project is to eliminate the ongoing nutrient loading being caused by trespassing cattle in wetland waters on the Refuge. The exclusion of cattle would allow natural attenuation processes to improve water quality in these highly eutrophic water bodies.

2) **Geographic Nexus.** The proposed fence line is located across the center of the former Guadalupe Oil Fields, thus providing a direct ("ground zero") geographic nexus to Guadalupe Oil Spill Settlement funding.

3) **Waste Type or Violation (Petroleum Nexus).** Nutrient loading from cattle is the waste type that is present on the project site. However, the Refuge is located in the former Mobil Corporation oil production fields.

4) **Beneficial Use Protection**. Water bodies on the Refuge do not appear to have been classified for Beneficial Use Definitions by the Regional Water Quality Control Board. However, if classified, waters in Refuge wetlands that would benefit from the construction of the proposed fence project appear to meet the following Beneficial Use Definitions: Ground Water Recharge (GWR), Warm Fresh Water Habitat (WARM), Preservation of Biological Habitats of Special Significance (BIOL), Rare, Threatened, or Endangered Species (RARE), Migration of Aquatic Organisms (MIGR), Wildlife Habitat (WILD), and Marine Habitat (MAR).

5) **Institutional Stability and Capacity.** The Dunes Center is a non-profit environmental organization that has been in existence for seven years. The Dunes Center will be teaming up with the U.S. Fish and Wildlife Service, a federal agency under the U.S. Department of the Interior, which has been in existence since 1849.

6) **Leveraged Funding**. The total project cost is $91,825, with approximately $28,000 of this total being provided by in-kind contributions. Due to these in-kind contributions, the amount of funds requested is $63,825. This amount of matching funds is equal to about 30% of the total project expenses, or 44% of the total requested funding.

7) **Region-wide Use or Benefit.** The proposed project would serve to protect more than 150 acres of sensitive, unique wetlands in the middle of the 20,000-acre Dunes Complex. The Dunes Complex has been designated as a National Natural Landmark. Therefore, protecting water quality, habitat, and species in this area would have regional, national, and global significance.

PROJECT ESTIMATED COST:

The total estimated cost for this project is approximately $91,825 (= $83,500 sub-total + $8,325 overhead). Matching funds in the form of donated in-kind services for administrative support, off-road vehicle usage, fence construction, logistical support, and project coordination would equal approximately $28,000. Therefore, a total of $63,825 is being requested. These in-kind contributions are summarized below:

Activity / Item	Hrs	$ / Hr.	Amount
Dunes Center - donated admin. support	20	40	$800
Tyke Minetti - field crew supervision, fence design	30	60	$1,800
Minetti / Maretti Ranch - crew member 1	30	30	$900
Minetti / Maretti Ranch - crew member 2	30	30	$900
Glenn Greenwald - technical, logistical coordination	200	100	$20,000
FWS Polaris Ranger 6 x 6 UTV	150	16	$2,400
Minetti / Maretti ATV	100	12	$1,200
		Total:	**$28,000**

A project budget summary would include the following:

Materials.....	$16,500
Labor.....	$63,400
Off-Road Vehicle Rental.....	$3,600
Subtotal	$83,500
Contributed In-kind Services / Items	$28,000
Balance	$55,500
Overhead (Dunes Center @15%)....	$8,325
Total Requested	**$63,825**

PROJECT PARTNERS:

The project partners include the following organizations: Dunes Center, U.S. Fish and Wildlife Service, and Minetti - Maretti Ranch. Acting as the "Friends of the Refuge" organization, the Dunes Center proposes to administer the proposed project. Working cooperatively with the Dunes Center, the U.S. Fish and Wildlife Service would coordinate the logistical and technical aspects of the fence installation. A field crew from the Minetti-Maretti Ranch would assist with project design, start the fence construction, plus provide onsite orientation to a fencing contractor. After receiving a few days of orientation, the fencing contractor would perform the bulk of the fence construction.

PROJECT READINESS:

The preliminary planning stages of the proposed project have already been initiated. Pending funding, the project would be ready to implement as soon as January 21, 2008. After fencing materials have been staged along the proposed fence line, project construction would take an estimated four weeks.

DUNES COLLABORATIVE WATER QUALITY PROJECTS

Arroyo Grande Creek Care Guide

PROJECT PROPONENT:

Central Coast Salmon Enhancement
Stephnie Wald
steph@centralcoastsalmon.com
805-473-8221

PROJECT DESCRIPTION:

As part of the City of Arroyo Grande's commitment to increasing their involvement in improving habitat and water quality within their jurisdiction, the City has prepared a draft Creek Care Guide that would be available on their and our web-sites and provided to city residents. Our web-site would link the Guide to the Collaborative Partners and the RWQCB.

Salmon Enhancement would complete the draft and produce a camera ready copy for the City for production and distribution. A portion of the City's recently approved sales tax revenue is intended for production and distribution.

The production of the Guide represents a small portion of the City's Creek program which includes partnerships with many area agencies and organization to:

- remove English Ivy through a pilot demonstration project
- restore floodplain within the City
- restore creek capacity
- demonstrate LID projects
- sign onto a watershed-wide MOU which identifies roles and responsibilities of managing the Arroyo Grande Creek Watershed together

WATER QUALITY COMPONENTS:

Erosion control, sediment reduction and storm water pollution prevention

MEETS RWQCB CRITERIA:

Water Quality Focus

The Creek Care Guide will provide residents with easy to implement ideas for improving water quality and habitat including:

- Preventing storm water pollution, the importance of doing so, and the city's role in pollution prevention.
- Resources for design and construction using LID principles.
- Information about and invitation to participate with Salmon Enhancement's Volunteer Water Quality Monitoring Program will be included.
- The relationship between riparian vegetation and healthy aquatic habitat
- Creek set-back ordinances do's

Geographic Nexus

The Arroyo Grande Creek Watershed is located approximately 13 miles from the Guadalupe Oil Field Site. It is a feeder watershed to the Dunes ecosystem that empties within the Off-Highway Vehicle Riding Area of California State Parks at Oceano. The headwaters are in the Los Padres National Forest. Lopez Dam is situated about 13 miles upstream. The watershed drains approximately 86 square miles. Projects in upstream watersheds can provide significant water quality benefits to the impacted area by protecting the source.

Waste Type or Violation (Petroleum Nexus)

N/A

Beneficial Use Protection

Aquatic life, wildlife habitat, cold freshwater habitat, spawning, reproduction and/or early development (for Steelhead trout and other native fish) and estuarine habitat beneficial uses would be addressed in this project by incorporating information relevant to homeowners and residents about practices that impact beneficial uses in an engaging and educational manner.

Institutional Stability and Capacity

The City of Arroyo Grande's commitment to changing their culture of land management is demonstrated with their aggressive participation in creek health promoting projects. Elected official leadership and planning commission commitment in involving citizens via the Guide demonstrates the City's capacity to fulfill this and many other creek and watershed projects. Their institutional stability as a government agency is strong with a City Manager who attends monthly Creek Task Force meetings and associate planner who sets agendas for those meetings and has become an integral part of implementing the City Council's directives.

Central Coast Salmon Enhancement was founded in 1984. The organization has been working in the Arroyo Grande Watershed for the past nine years, hosting community-wide watershed forums on a wide variety of creek related topics. We have completed a watershed management plan for Arroyo Grande Creek Watershed that is now being implemented. We have built sturdy relationships with landowners, residents and agencies in our attempt to improve watershed health for fisheries.

Leveraged Funding

The City will provide funds to print, and distribute the Guide to residents in the City, and post the Guide on their web-site. We will also provide in-kind support to distribute the Guide to those requesting hard copies outside of the City limits.

Region-wide Use or Benefit

There is potential for region-wide use and benefit as the creek care guide is relevant to central coastal drainages, native plants and creek-friendly gardening/landscaping, being water wise, and restoring riparian habitats.

PROJECT ESTIMATED COST:

Labor for writing, editing	$4000
Labor for graphics	2000
	6000 Requested

PROJECT PARTNERS:

	Matching Funds
Central Coast Salmon Enhancement	$100 (mailing Guides)
City of Arroyo Grande	500 (reproduction and mailing Guides)
	600

PROJECT READINESS: (If funds were available, would the project be ready to implement?)

Yes

DUNES COLLABORATIVE WATER QUALITY PROJECTS

CORBETT CREEK/TALLY HO CREEK SEDIMENT REDUCTION PROJECT

PROJECT PROPONENT:

Coastal San Luis Resource Conservation District
545 Main Street, Suite B-1
Morro Bay CA 93442
Contact: Julie Thomas
Email: jthomas@coastalrcd.org
Phone: 471-9479 (cell); 772-4391 (general office)

PROJECT DESCRIPTION:

This project consists of two main components to remediate chronic sediment inputs to the Tally Ho Creek (also known as Corbett Creek) tributary to Arroyo Grande Creek.

Component 1 consists of repairing a head cut on Tally Ho Creek, restoring stream geometry, and addressing culvert drainage problems; estimated sediment delivery reduction: 250 cubic yards over 10-year period.

Component 2 consists of obtaining a conservation easement on a 7 to 9 acre portion of Clark family property. This property is currently zoned to allow residential housing, and is one of the largest remaining open space parcels in AG City limits (Figure 1) less than 1 mile upstream of the Tally Ho site (landowner interest confirmed) and implementing a floodplain restoration/sediment detention (passive or active to be determined) project on the property; estimated sediment delivery reduction: approx. 900 tons/yr.

Both of these measures will provide long-term sediment delivery reductions for the tributary as well as mainstem Arroyo Grande Creek downstream of the juncture. In addition, the measures will improve flood protection to adjacent landowners. Erosion and sedimentation control projects were identified as priority needs for protection of steelhead trout habitat in the 2005 "Arroyo Grande Creek Watershed Management Plan" (CCSE). Both of the proposed projects were listed as priorities in the 2006 "Arroyo Grande Creek Erosion, Sedimentation and Flooding Alternatives Study". Component 1 is listed as "Site 14" in Table 4.8 of the study, and Component 2 is listed as "Site 2" in Table 4.9.

The City of Arroyo Grande is funding early design components for both projects, the Coastal San Luis RCD is providing planning, permitting and coordination functions, and the State Coastal Conservancy has confirmed interest in providing match funding for easement acquisition and implementation of the Clark project.

WATER QUALITY COMPONENTS:

Sediment Delivery Reduction.

MEETS RWQCB CRITERIA:

1. Water Quality Focus: Sediment delivery reduction.

2. Geographic Nexus: Corbett/Tally Ho Creek is a tributary to Arroyo Grande Creek, on the north border of the Oceano Dunes.

3. Waste Type or Violation (Petroleum Nexus): No history of petroleum waste or violation.

4. Beneficial Use Protection: Preserves and enhances open space, floodplain and riparian corridor. Enhances known habitat for federally-listed steelhead trout and red-legged frog (AG Creek).

5. Institutional Stability and Capacity: CSLRCD's successful floodplain restoration projects include Chorro Flats Enhancement Project; the City of Arroyo Grande is committed to creek protection as shown in their Creek Resource Protection Ordinance; Central Coast Salmon Enhancement completed the 2005 Arroyo Grande Creek Watershed Management Plan with CDFG funding.

6. Leveraged Funding: The Coastal Conservancy has tentatively committed a match of up to $400,000 for acquisition and implementation; the City of Arroyo Grande has committed funds for a property appraisal.

7. Region-wide Use or Benefit: Enhances and protects habitat for federally-listed steelhead trout on mainstem AG Creek; reduces flood risk reduction to lower Arroyo Grande Creek.

PROJECT ESTIMATED COST:

1. Headcut remediation and culvert drainage (Tally Ho headcut): $212,875

2. Conservation easement acquisition/floodplain restoration (Clark project): $450,000 approx for easement acquisition + $150,000 to 350,000 implementation (depending on final design = up to $800,000.

Total estimated cost for both projects: $812,875 to 1,012,875.

PROJECT PARTNERS:

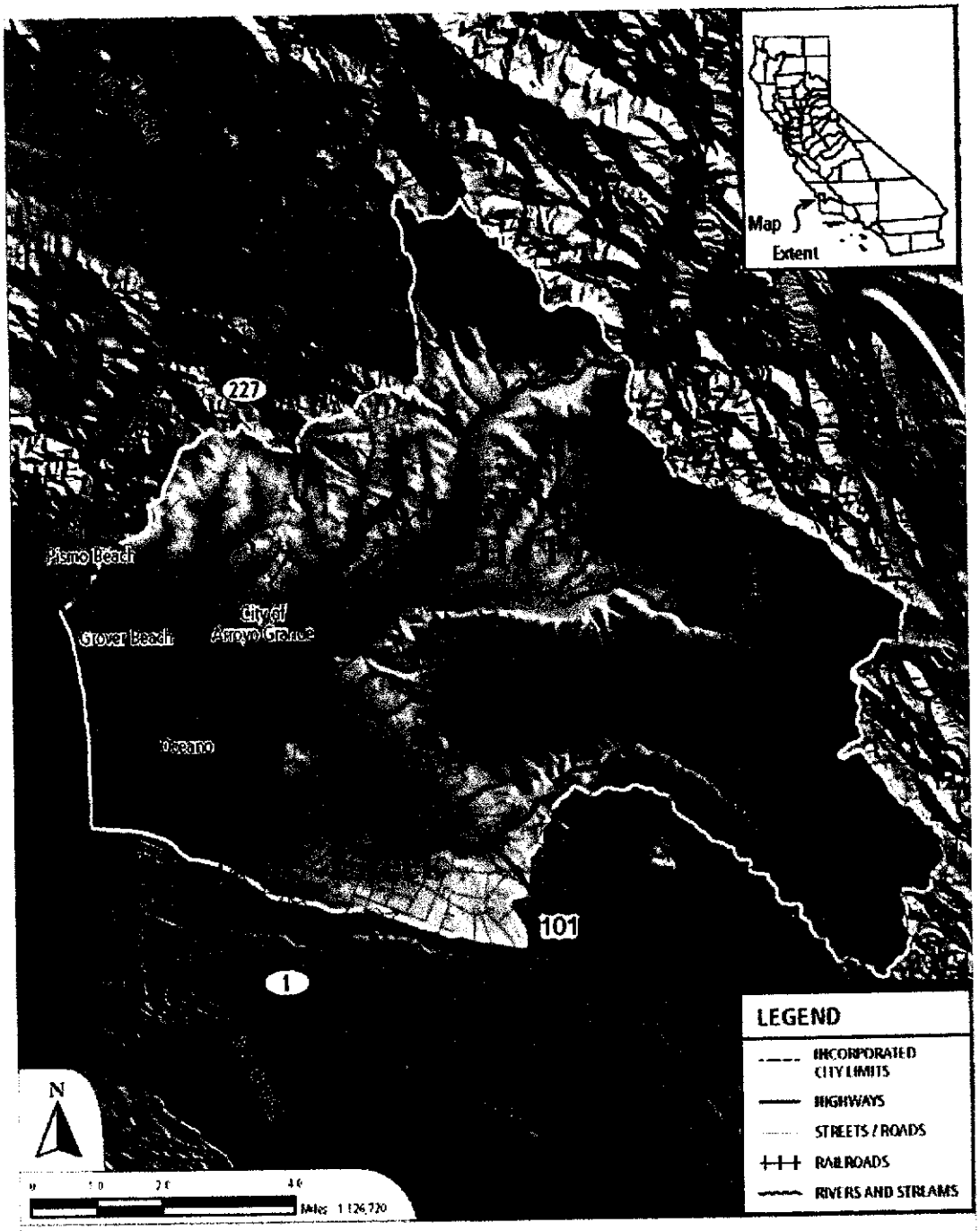
Central Coast Salmon Enhancement
Coastal San Luis RCD
State Coastal Conservancy (tentative commitment of $400,000 for Clark conservation easement and floodplain restoration project)
City of Arroyo Grande (committed over $20,000 to projects)
Tally Ho Homeowners
Clark Family

PROJECT READINESS:

Component #1 - Tally Ho headcut repair: Implementation could begin as early as summer 2008, depending on status of environmental permits.

Component #2 – Clark property conservation easement and floodplain restoration: The process of completing the conservation easement process for the Clark property could begin immediately. Simultaneously we would move forward on obtaining necessary permits from environmental regulatory agencies for the floodplain restoration component. The most likely estimate for commencement of implementation of the floodplain restoration component is late 2008 / early 2009.

Figure 1. Location Map.of Tally Ho and Clark Projects.



Location of Clark and Tally Ho Projects within Arroyo Grande Creek Watershed.

Figure 2. Tally Ho Creek immediately upstream of headcut.

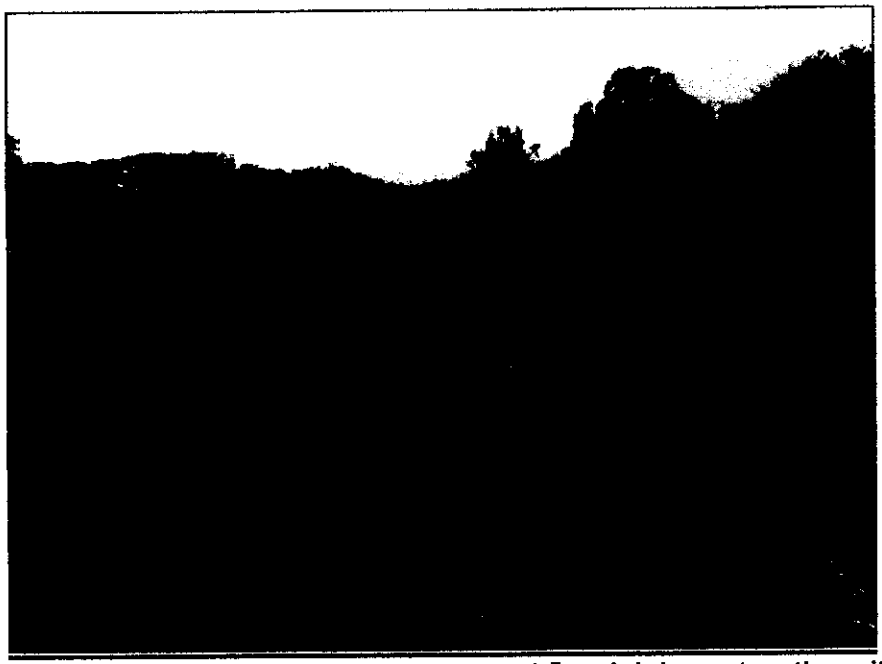


Figure 3. Proposed conservation easement and floodplain restoration site on Clark property.

DUNES COLLABORATIVE WATER QUALITY PROJECTS

NEWSOM SPRINGS REGIONAL DRAINAGE PLAN PROJECT

PROJECT PROPONENT:

City of Arroyo Grande
Community Development Department
Contact: Teresa McClish, Associate Planner
P.O. Box 550
214 E. Branch Street
Arroyo Grande, CA 93421
(805) 473-5420
tmcclish@arroyogrande.org

PROJECT DESCRIPTION:

The Newsom Springs Regional Drainage Plan Project (NSPDP) consists of a series of actions to improve regional drainage, water quality and reduce flooding in parts of the City. The project area is generally bounded by Branch Mill Road and Arroyo Grande Creek in the southeast portion of Arroyo Grande (Figures 1 and 2). The primary objectives of the project include:

- Remedy flooding in areas identified in the City's Storm Water Drainage Master Plan (SWDMP) and downstream
- Improve runoff water quality as it enters Arroyo Grande Creek
- Remedy existing creek bank erosion sites dependent on the selected stormdrain outfall point
- Maintain the ongoing viability of existing agricultural operations and protect prime agricultural soils

The proposed project area currently supports primarily active annually cultivated cropland (Dixson Ranch) bordered by the mature dense riparian habitat along Arroyo Grande Creek. As described in the City Storm Water Drainage Master Plan (Draft 2006), the existing Newsom Springs drainage from just above Branch Mill Road to its confluence with Los Berros Creek is a highly modified earth channel bordering active annual cropland habitat, residential development, a church, and Arroyo Grande High School athletic fields. The NSPDP project area is surrounded by residential subdivision development and large lot rural residential development within the City of Arroyo Grande and unincorporated San Luis Obispo County surrounding the City limits.

WATER QUALITY COMPONENTS:

Stormflow from the entire Newsom Springs watershed, over 1000 acres, currently moves to Arroyo Grande Creek via an open earth ditch along Branch Mill Road and a temporary ditch through the Cherry Creek project site. Based on the Universal Soil

Loss Equation used to estimate sediment load, on average the Newsom Springs watershed upstream of the box culvert at Branch Mill Road currently accounts for 670 tons/yr[1] of sediment delivered to Arroyo Grande Creek, and sheet flow across farmland accounts for 21 tons/yr.[2]

The proposed NSPDP project would transfer the stormflow for most events from the earthen ditch to pipes and a bioswale, thus eliminating the increased sediment load currently created during flow in the earthen ditch, and also will eliminate soil erosion and sediment entrainment caused by sheet flow across the farmland during substantial storm events. A stormwater basin along East Cherry Ave would function as a sediment basin, trapping sediment before it enters Arroyo Grande Creek.

The Branch Mill Road Perimeter Ditch Capacity Improvement proposed option is a stormdrain pipe, rather than a widened ditch or swale, as application of Manning's Equation to approximate the size of ditch required to convey the 100-year 24-hour storm event determined that an adequate ditch size to handle the 1,024 cfs peak flow calculated in the 1998 NSRDP Wallace Report would require 6 feet of depth (including 1 foot for freeboard) and 40 feet of top width (assuming slope of 0.35%[3]). This substantially larger ditch would have increased potential for sedimentation loading due to increased soil surface area and increased velocities associated with the higher volume of storm water conveyed. A properly designed stormdrain pipe would avoid these disadvantages.

The array of facilities described above would significantly decrease the amount of sediment currently reaching the creek from the earthen ditch along Branch Mill Road and from the agricultural fields. As a result, the Project would not adversely affect the existing agricultural operation's status in relation to California's Nonpoint Source Program Plan and the California Water Code for discharges of water from irrigated lands.

Additionally, The 2006 Swanson Hydrology & Geomorphology "Arroyo Grande Creek Erosion, Sedimentation and Flooding Alternatives Study" mapped and characterized bank erosion locations as potential sediment sources. The erosion sites were mapped based on a 2004 stream inventory study coordinated by Central Coast Salmon Enhancement. Six streambank erosion sites ranging from eight feet to 40 feet in height and 198 feet to 372 feet in length were mapped in Arroyo Grande Creek from near the County stream gage upstream to the alternative outfall location. The NSPDP would remedy existing streambank erosion sites related to the stormdrain outfall.

---

[1] Approximately 97% of Swanson estimated sediment yield for Newsom watershed; proportion calculated per application of universal soil loss Equation (USLE).
[2] Approximately 3% of Swanson estimated sediment yield for Newsom watershed.
[3] Based on preliminary field measurements and analysis per NRCS engineer.

MEETS RWQCB CRITERIA:

1. Water Quality Focus: Reduction in sheet erosion over farmland, reduced sediment delivery to AG Creek.

2. Geographic Nexus: AG Creek forms northern border of Oceano Dunes.

3. Waste Type or Violation (Petroleum Nexus): No petroleum nexus.

4. Beneficial Use Protection: Protects federally-listed steelhead habitat; protects prime farmland under agricultural conservation easement; reduces flood risk to residential neighborhoods.

5. Institutional Stability and Capacity: City of Arroyo Grande regularly conducts and oversees large projects.

6. Leveraged Funding: The City has $286,000 to contribute to the project. Additionally, the City has already spent $70,000 for the completion and certification the Program EIR.

7. Region-wide Use or Benefit: By preventing sheet erosion from farmland during moderate storm events, decreases introduction of sediment and agricultural pesticides and herbicides into Arroyo Grande Creek.

PROJECT ESTIMATED COST:

The Newsom Springs Regional Drainage project is estimated to cost up to a total of $885,000 – 997,000 to construct. The City has $286,000 to contribute to the project. Additionally, the City has already spent $70,000 for the completion and certification the Program EIR.

PROJECT PARTNERS:

- City of Arroyo Grande: Steve Adams, City Manager
- County of San Luis Obispo: Jeff Werst, County Public Works Engineer
- Coastal San Luis Resource Conservation District: Julie Thomas, South County Watershed Coodinator
- Natural Resource Conservation District: Margie Lindquist, District Conservationist
- Dixson Ranch (Agricultural Easement): Jim Dickens

PROJECT READINESS:

The project is programmed in the City's 2008 CIP Budget. The EIR was certified on July 24, 2007 SCH #200702114. Once funded, an RFP will immediately be prepared for the construction contract.

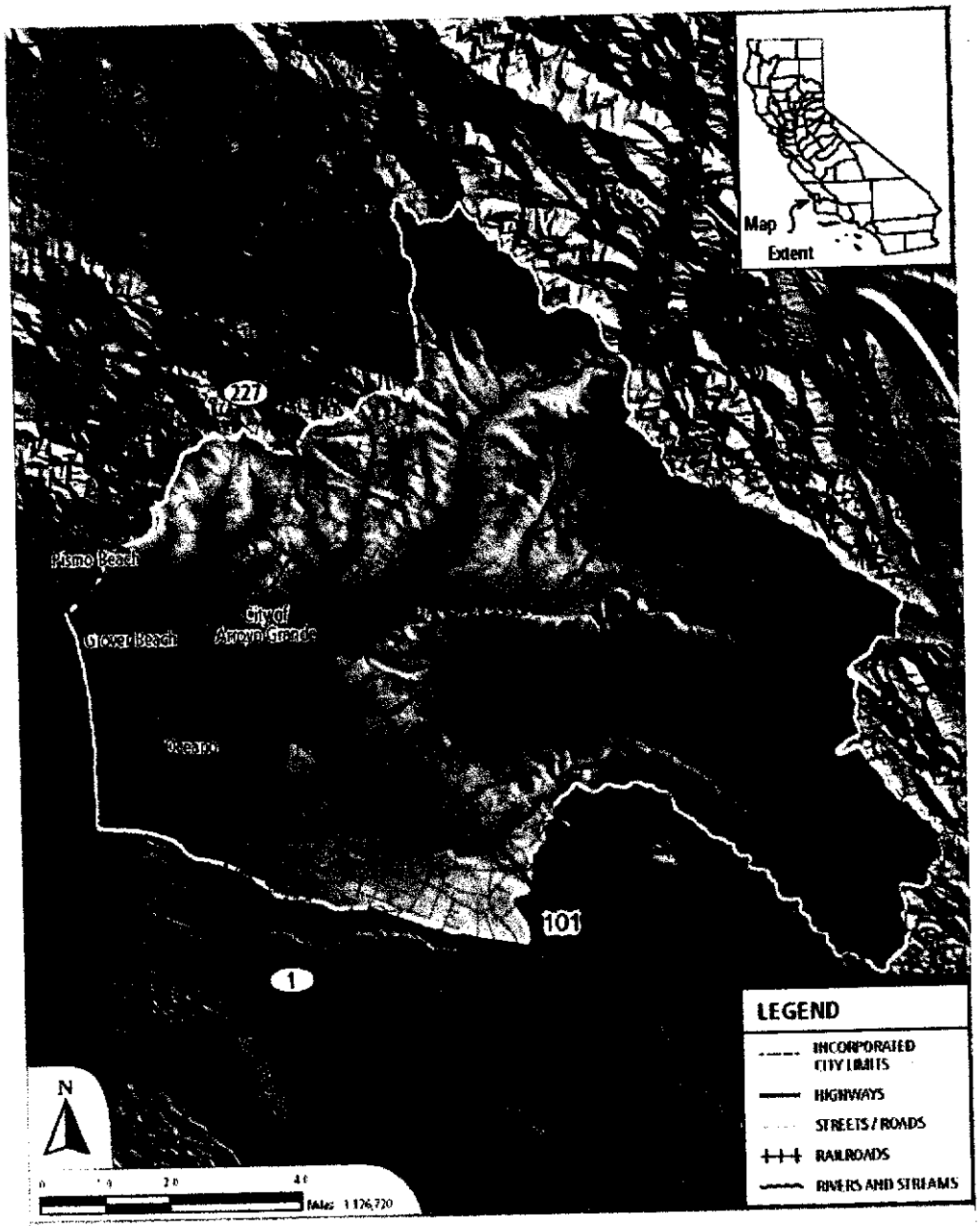


Figure 1. Location of Newsom Springs Project within Arroyo Grande Creek Watershed.

Figure 2. Aerial of project area.

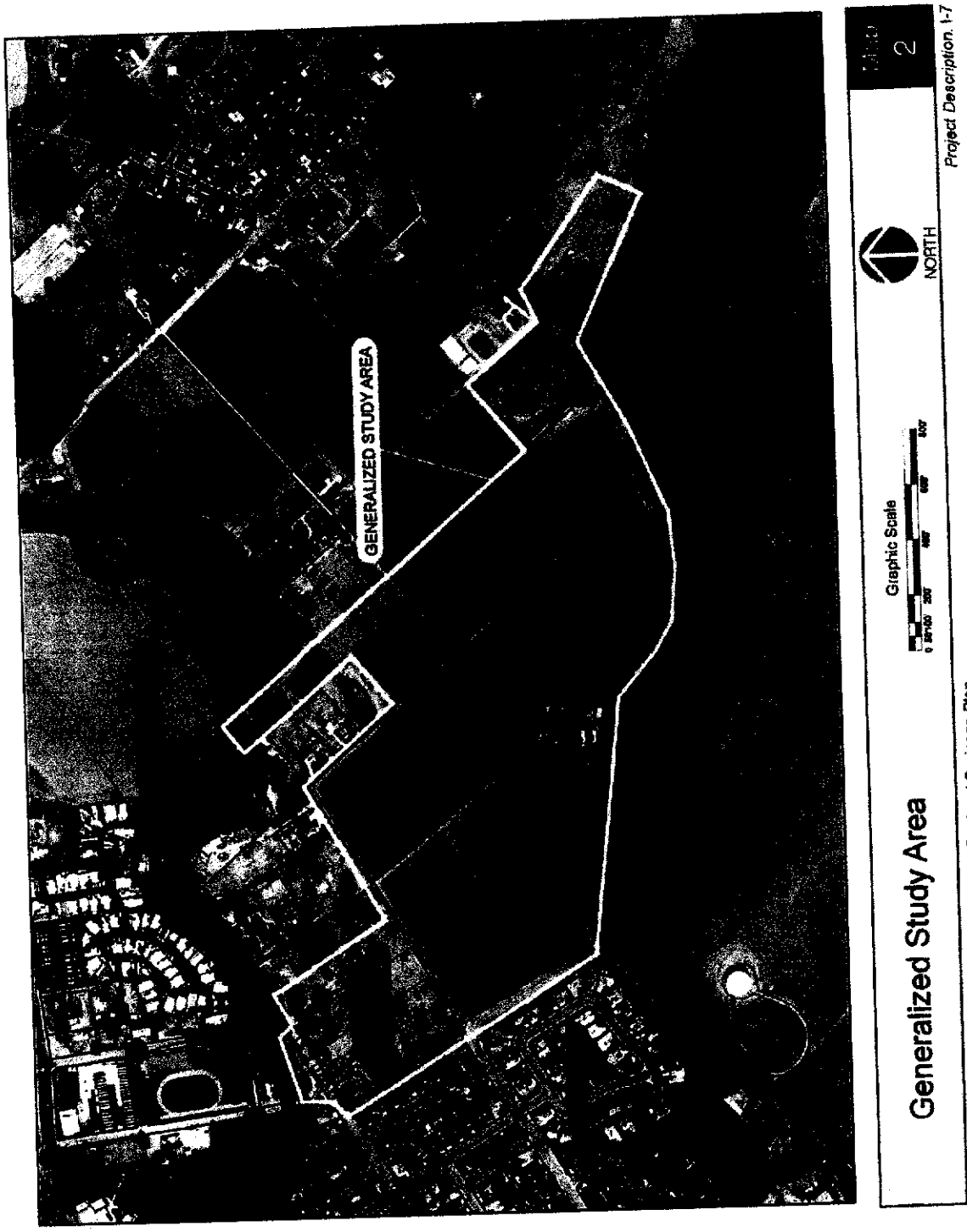


Figure 3. Undersized ditch into which Newsom Springs watershed runoff is currently directed.

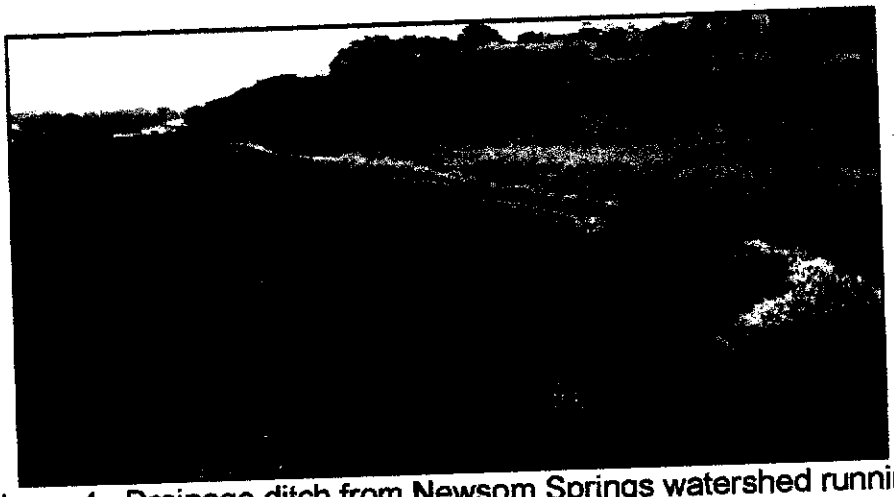


Figure 4. Drainage ditch from Newsom Springs watershed running alongside fallow farmland.

DUNES COLLABORATIVE WATER QUALITY PROJECTS

PROJECT TITLE:

Oceano Lagoon Water Quality Assessment, Biological Resource Assessment, and Management Actions

PROJECT PROPONENT:

California Department of Parks and Recreation
Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449
Ronnie Glick, Senior Environmental Scientist
805-773-7180, Fax 805-773-7176
rglick@parks.ca.gov

PROJECT DESCRIPTION:

Oceano Lagoon water quality assessment, biological resource assessment, and management actions. This project would assess water quality and biological resource issues in Oceano Lagoon, in the Meadow Creek watershed in southern San Luis Obispo County. Based on the information generated from this assessment, management actions will be developed to perpetuate the natural resource values of this regionally important lagoon system. This project will generate benefits to the Arroyo Grande Creek estuary because Oceano Lagoon feeds this regionally important estuary.

WATER QUALITY COMPONENTS:

Urban runoff, nutrients, coliform, dissolved oxygen, other NPS.

MEETS RWQCB CRITERIA:

1. Water Quality Focus – This project would assess water quality impairment in Oceano Lagoon with an emphasis on maintaining beneficial uses of the water body.

2. Geographic Nexus – Oceano Lagoon empties into the Arroyo Grande Creek estuary and is part of the Guadalupe Nipomo Dunes Complex

3. Waste Type or Violation (Petroleum Nexus) – Oceano Lagoon is minimally impacted by petroleum products from urban runoff.

4. Beneficial Use Protection – This project will assess water quality and contributing factors to water quality impairment and address specific threats to beneficial uses of the water body.

5. Institutional Stability and Capacity – The California Department of Parks and Recreation (State Parks) has owned and managed a significant portion of this water body for more than 25 years. State Parks has a track record of successfully implementing water quality improvement projects both locally and State-wide.

6. Leveraged Funding – This project has the potential to bring matching funds from CalTrans, the San Luis Obispo County, and State Parks.

7. Region-wide Use or Benefit – This project will address water quality impacts from urban development, light suburban development, and highways on water quality. There is a potential to expand the findings and processes established in this project to similar issues throughout the Central Coast region.

PROJECT ESTIMATED COST:

$120,000, additional funds for implementation of specific projects.

PROJECT PARTNERS:

State Parks, San Luis Obispo County Parks, Oceano Airport, South County Sanitation District, Oceano Community, public interest groups, private citizens.

PROJECT READINESS:

Ready to implement as soon as funding is available. Projected 18 month project duration.

DUNES COLLABORATIVE WATER QUALITY PROJECTS

PROJECT TITLE:

Pismo Lake Ecological Reserve Water Quality Assessment, Biological Resource Assessment, and Management Actions

PROJECT PROPONENT:

California Department of Parks and Recreation
Oceano Dunes District
340 James Way, Suite 270
Pismo Beach, CA 93449
Ronnie Glick, Senior Environmental Scientist
805-773-7180, Fax 805-773-7176
rglick@parks.ca.gov

PROJECT DESCRIPTION:

Pismo Lake Ecological Reserve water quality assessment, biological resource assessment, and management actions. This project would assess water quality and biological resource issues in the Pismo Lake Ecological Reserve, in southern San Luis Obispo County. Based on the information generated from this assessment, management actions will be developed to perpetuate the natural resource values of this regionally important lake system.

WATER QUALITY COMPONENTS:

Urban runoff, nutrients, coliform, dissolved oxygen, other NPS.

MEETS RWQCB CRITERIA:

1. Water Quality Focus – This project would assess water quality impairment in Pismo Lake with an emphasis on maintaining beneficial uses of the water body.

2. Geographic Nexus – Pismo Lake is a tributary to Meadow Creek which shares an ocean outlet with Arroyo Grande Creek. This watershed is part of the Guadalupe Nipomo Dunes Complex

3. Waste Type or Violation (Petroleum Nexus) – Pismo Lake is minimally impacted by petroleum products from urban runoff.

4. Beneficial Use Protection – This project will assess water quality and contributing factors to water quality impairment and address specific threats to beneficial uses of the water body.

5. Institutional Stability and Capacity – The California Department of Parks and Recreation (State Parks) has recently taken over management responsibilities for Pismo Lake from the California Department of Fish and Game. State Parks has a track record of successfully implementing water quality improvement projects both locally and State-wide.

6. Leveraged Funding – This project has the potential to bring matching funds from CalTrans, the city of Pismo Beach, San Luis Obispo County, California Coastal Conservancy, and State Parks.

7. Region-wide Use or Benefit – This project will address water quality impacts from urban development, light suburban development, and highways on water quality. There is a potential to expand the findings and processes established in this project to similar issues throughout the Central Coast region.

PROJECT ESTIMATED COST:

$120,000, additional funds for implementation of specific projects.

PROJECT PARTNERS:

State Parks, City of Pismo Beach, City of Grover Beach, public interest groups, private citizens.

PROJECT READINESS:

Ready to implement as soon as funding is available. Projected 18 month project duration.