Item 16, Supporting Document 14

From: Eric Becker
To: Frank Melbourn; Mark Alpert; Odermatt, John
Date: 12/4/2007 8:26:20 AM
Subject: Fwd: Buena Vista Spill SEP & Joint Letter - Complaint No R9-2007-0099

>>> <Sharon_Taylor@fws.gov> 12/3/2007 5:46 PM >>>
Mr. Eric Becker,

Attached please find the U.S. Fish & Wildlife Service's and the California Department of Fish and Game's joint letter and SEP proposal regarding the Buena Vista Sewage Spill that occurred this past spring. We look forward to jointly working with the SDRWQCB and the Cities on restoration efforts to address the spill's impact to our trust resources. If we can provide any additional information please let us know.

Sincerely,

Sharon K. Taylor Warren Wong

Sharon K. Taylor, DVM, PhD Warren Wong
Environmental Contaminants Division Chief Associate Biologist
Carlsbad Fish & Wildlife Office California Department of Fish and Game
U.S. Fish & Wildlife Service 4949 Viewridge Avenue
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CA 92123
Carlsbad, CA 92011 Phone: (858) 467-4249
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South Coast Region
4949 Viewridge Avenue
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In Reply Refer To:
FWS/CDFG-EC-BV Lagoon SEP

Mr. John H. Robertus
Executive Officer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4353

Subject: Complaint No. R9-2007-0099 for Administrative Civil Liability against the Cities of Vista and Carlsbad for Violation of No. R9-2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

Dear Mr. Robertus:

The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Game (Department), collectively the "Wildlife Agencies", have reviewed Complaint No. R9-2007-0099 for Administrative Civil Liability (ACL) against the Cities of Vista and Carlsbad, dated September 28, 2007, developed by the San Diego Regional Water Quality Control Board (SDRWQCB) for the Buena Vista Lagoon Sewage Spill.

The Wildlife Agencies have reviewed the complaint and concur with the allegations concerning the 7.3 million gallons of raw sewage spilled. However, the currently proposed fines assessed to the responsible parties may not be adequate to address the injuries to our trust resources at Buena Vista Lagoon Ecological Reserve. During the ongoing incident and subsequent monitoring we communicated our concerns and recommendations concerning our trust resources to the Cities through meetings, phone calls, and electronic mail. We have previously requested and are still awaiting bird survey data, as well as benthic community analysis from the Cities to evaluate and prepare our independent impact assessments. In addition, the Service previously provided comments on the "Discharger Response to the Investigative Order No. R9-2007-0060", where we communicated that the Cities had still not addressed many of our concerns.

Although the investigation of this matter is still pending and alternative courses of action are still being evaluated, we support the use of a Supplemental Environmental Project (SEP) to help offset the impacts to the lagoon. We have prepared a SEP proposal (attached) which will address some of the impacts of the spill, to the ecological reserve and sensitive biological resources associated with the lagoon. If approved, this SEP would provide for completion of engineering studies and modeling needed for the Buena Vista Lagoon restoration plan. We respectfully request that this SEP proposal be considered by the SDRWCQB and the responsible parties.

We look forward to jointly working on restoration efforts to address the spill's impacts to natural resources with the SDRWQCB and the Cities. Working with our partners is essential to achieve our long term goals for the recovery of federal and state listed species. It is also essential for the continued preservation of Buena Vista Lagoon Ecological Reserve which provides habitat for numerous fish and wildlife species. If we can provide any additional information to support this SEP proposal, please contact Dr. Sharon Taylor (Service) at (760) 431-9440 extension 220 or Mr. Warren Wong (Department) at (858) 467-4249.

Sincerely,

Scott A. Sobiech
Deputy Field Supervisor
U.S. Fish and Wildlife Service

Theresa A. Stewart
Supervising Biologist
California Department of Fish and Game

Enclosure

cc:
Eric Becker, SDRWQCB
Sharon K. Taylor, USFWS
Judy Gibson, USFWS
John Brooks, USFWS
Therese O'Rourke, USFWS
Karen Miner, CDFG
Warren Wong, CDFG
Bruce Joab, CDFG
Julie Yamamoto, CDFG
Bill Paznokas, CDFG
Bryan Gollhofer, CDFG
Noel Richards, CDFG
Deborah Ruddock, State Coastal Conservancy

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
(SDRWQCB)

SUPPLEMENTAL ENVIRONMENTAL PROJECT APPLICATION FORM

Project Requested by: Natural Resource Co-Trustees - U.S. Fish & Wildlife Service (USFWS) and California Department of Fish and Game (DFG)

Name of Project: Buena Vista Lagoon Restoration – Engineering Studies and Analyses

Date of Request: November 30, 2007

Point of Contact: Natural Resource Co-Trustees USFWS (Sharon K. Taylor) and DFG (Warren Wong)

Phone: USFWS - Sharon K. Taylor (760) 431-9440 ext 220
DFG - Warren Wong (858) 467-4249

E-Mail: USFWS - Sharon K. Taylor sharon_taylor@fws.gov
DFG - Warren Wong wwong@dfg.ca.gov

Project Summary

Buena Vista Lagoon has been adversely impacted over time by a concrete weir built across the ocean entrance in the 1940's that controls the water level. Unique among the county's six coastal lagoons, Buena Vista Lagoon currently has no tidal flushing due to its present elevation and configuration. Historically, the lagoon was a tidal system. The presence of the weir at the mouth of the lagoon, combined with increasing sediment and nutrient loading, has reduced the depth and circulation of the lagoon, accelerated the growth of cattail, bulrush, and algal growth, and lead to the decline of biodiversity and increased vector problems. Numerous agencies and organizations have been working toward restoring the lagoon including, but not limited to, the USFWS, DFG, State Coastal Conservancy, Southern California Wetlands Recovery Project, and the Carlsbad Watershed Network.

This SEP proposal seeks funding to provide critical engineering analyses and studies to help restore the habitat and recreational resources of Buena Vista Lagoon. These studies would include coastal and fluvial processes and wetlands engineering. Approval of this SEP proposal would significantly contribute to these ongoing efforts to restore Buena Vista Lagoon and enhance the natural resources it supports.

Total Life Cycle Cost for the Project
Cost estimates for engineering analyses and studies, including the administrative overhead and contingency, required for the Buena Vista Lagoon restoration based on funding in FY 2008 are listed below.

Coastal Processes	$ 461,500
Fluvial Processes	$ 175,500
Wetlands Engineering	$ 565,500
Construction and Maintenance	$ 130,000
Impact Assessment	$ 175,500
Water Quality	$ 351,000
Total Project Cost	$ 1,860,000

Watershed/Water Body/Location for Project (attach maps)
Buena Vista Lagoon is located approximately 35 miles north of San Diego, on the border between the cities of Oceanside and Carlsbad in San Diego County, California. The lagoon, which is bordered by the Pacific Ocean on the west, Vista Way / Freeway 78 on the north, and Jefferson Street on the east and south, covers an area of approximately 225 acres. The lagoon is part of the El Salto Watershed. See attached Figures 1 and 2.

Project Proposed Start Date and Time Line
The proposed project is anticipated to commence as soon as contracts are in place, which is estimated to occur within 3-6 months of funding. Some of the studies are sequential in nature, so these would be initiated upon completion of others. Studies and analyses are estimated to be completed within 2 -3 years upon funding.

Organization Sponsoring Project (tax I.D. #): DFG 94-1697567

Name of Project Manager: Natural Resource Co-Trustees - USFWS (Sharon K. Taylor) and DFG (Warren Wong)

Phone: USFWS - Sharon K. Taylor (760) 431-9440 ext 220
DFG - Warren Wong (858) 467-4249

Designated Project Trustee: Natural Resource Co-Trustees USFWS (Sharon K. Taylor) and DFG (Warren Wong)

Description of Project Trustee capability to ensure that the project will be complete
As co-trustees, both the USFWS and DFG have agency mandates to protect the natural resources that are proposed under this SEP proposal. DFG has the mandate to manage Buena Vista Lagoon as an ecological reserve and has direct responsibility for overseeing the site. The US Fish & Wildlife Service has trustee resource responsibilities that include threatened and endangered species, as well as migratory birds and compliance with the National Environmental Policy Act (NEPA). Both agencies have extensive documented histories and commitments in working to restore Buena Vista Lagoon.

Statement of Project Trustee ability/authority to receive and disburse funds
Funds are proposed to be held by the California Department of Fish & Game, which has the ability as a State Agency to receive and disburse funds. Funds would be disbursed upon joint approval of the USFWS and DFG co-trustees. USFWS and DFG have jointly worked together on multiple projects as co-trustees.

DETAILED PROJECT INFORMATION

1 and 2. PROPOSAL DESCRIPTION AND PROBLEM STATEMENT

Buena Vista Lagoon has been adversely impacted over time by a concrete weir built across the ocean entrance in the1940's that controls the minimum water level. Unique among the county's six coastal lagoons, Buena Vista Lagoon currently has no tidal flushing due to its present elevation and configuration. Historically, the lagoon was a tidal system. The presence of the weir at the mouth of the lagoon, combined with increasing sediment and nutrient loading has reduced the depth and circulation of the lagoon, accelerated the growth of cattail, bulrush, and algal growth, and lead to the decline of biodiversity and increased vector problems. Numerous agencies and organizations have been working toward restoring the lagoon including, but not limited to, the USFWS, DFG, State Coastal Conservancy, Southern California Wetlands Recovery Project, and the Carlsbad Watershed Network.

The first phase of the restoration effort was completed in 1999 and consisted of a field program to collect data on the fauna, flora, and water quality of the lagoon. The second phase, initiated in 2004, would characterize existing conditions, identify constraints, develop restoration alternatives, analyze the restoration alternative, and would prepare and apply potential alternative evaluation methodology in determining the ultimate configuration of the lagoon and its hydrologic regime. Initial studies and analyses required in this second phase have been funded by the USFWS and State Coastal Conservancy (SCC), yet additional engineering studies and analyses are required for the completion of the lagoon restoration plan and have not been completed due to the lack of a funding source. Without completion of these studies, restoration of Buena Vista Lagoon cannot proceed.

This SEP proposal seeks funding to provide critical engineering analyses and studies to help restore the habitat and recreational resources of Buena Vista Lagoon. These studies would include coastal and fluvial processes and wetlands engineering that will result in plans and specifications to then implement the restoration. Specifically, these engineering analyses include:

I) Coastal Processes
- a. Ebb and Flood Bar Growth
- b. Shoreline Morphology
- c. Coastal Erosion Protection
- d. Surfing Impact Assessment
- e. Inlet Trafficability
- f. Beach Area Loss

II) Fluvial Processes
- a. Fluvial Hydraulics
- b. Fluvial Sedimentation

III) Wetlands Engineering
   a. Existing Structure Investigation
   b. Geotechnical Investigation
   c. Soil Characterization
   d. Utility Protection & Realignment
   e. Structural & Seismic
IV) Construction and Maintenance
   a. Construction Cost Estimates
   b. Maintenance Cost Estimates
V) Impact Assessment
   a. Visual Simulations
   b. Traffic Capacity
VI) Water Quality
   a. Lagoon Water Quality
   b. Nearshore Water Quality

3. HOW WILL THE PROJECT BENFEFIT WATER QUALITY AND BENEFICIAL USES?

Historically, Buena Vista Lagoon had periodic tidal influence. A weir installed at the ocean inlet in the 1940's isolates the lagoon from tidal influence and regulates water levels. Thus the lagoon has become a very efficient sediment trap. Estimates of the 1940-1982 sedimentation rate, based on cores of the lagoon bed, was 35,000 tons accrued per year.

If funded, this SEP will provide critical engineering analyses and studies to help restore the habitat and recreational resources of Buena Vista Lagoon. Approval of the project would provide information necessary to develop a long-term, sustainable configuration for the lagoon. Beneficial Uses identified in the Basin Plan are: REC1, REC2, BIOL, WILD, RARE, MAR, and WARM. Restoration would provide habitat for sensitive wildlife including light-footed clapper rail, California least tern and Belding's savannah sparrow and other wildlife. Removal of sediment and nutrients from the lagoon would provide additional habitat for fish and recreational opportunities for users and would also reduce fish die-offs. Water quality would be enhanced through a reduction in turbidity and nutrient load and the reduced potential for eutrophication. Depending on the final hydrologic regime, restoration could also potentially add EST, MIGR, and SPAWN uses to the lagoon.

4. HOW WILL THE SUCCESS OF THIS PROJECT BE MEASURED?

The success of this project will be measured by the completion and acceptance by the co-trustees of the engineering studies and analyses reports. These studies will be included in environmental documents to be circulated for agency and public review.

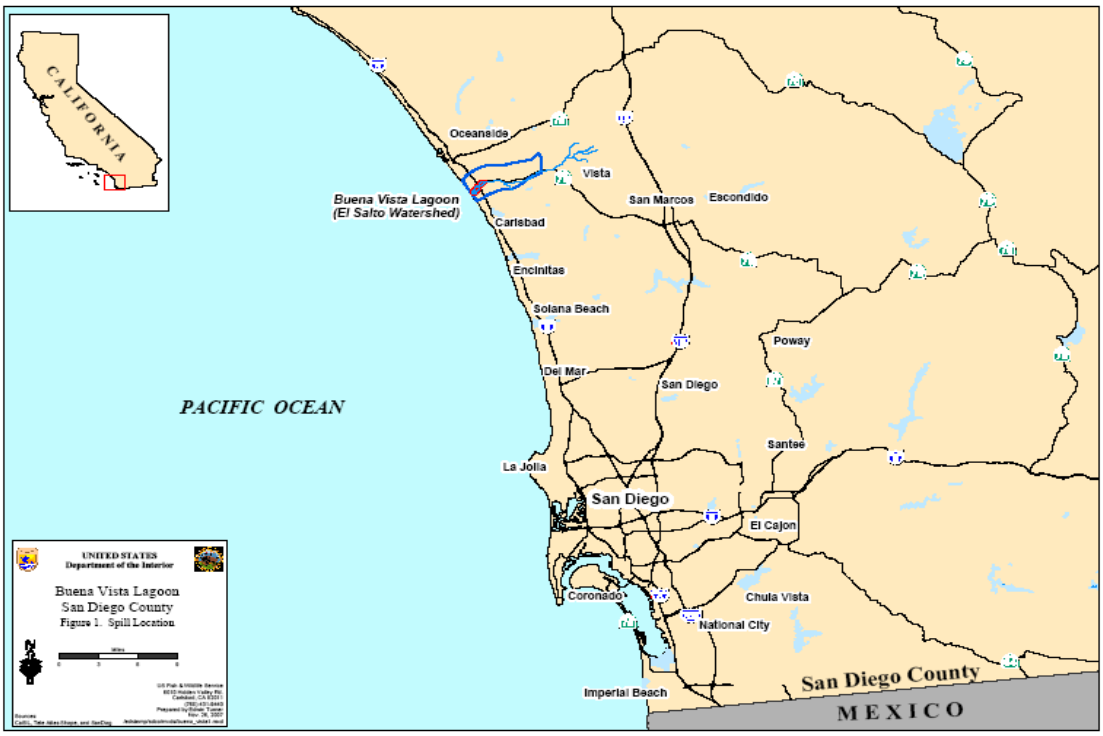
5. DETAILED WORK PLAN

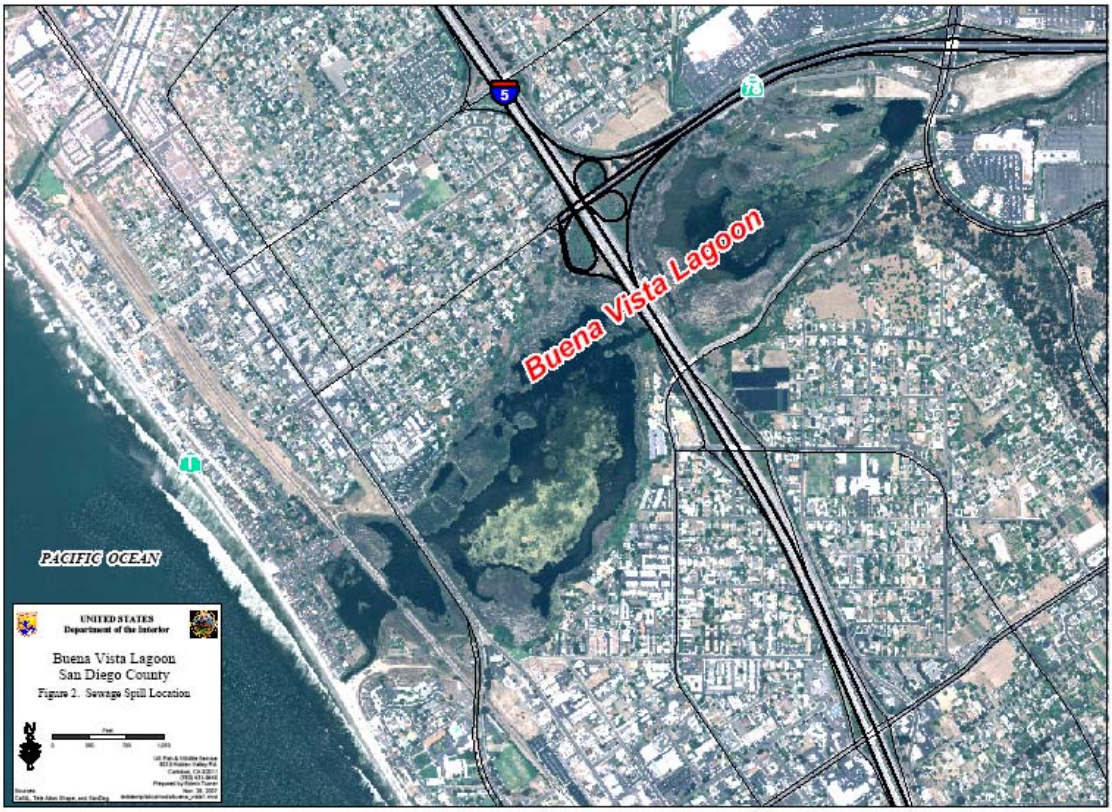
Please see the attached detailed work plan.

I certify that the information provided in this application is an accurate and complete report of the costs, scope of work and expectations of this proposed project I am submitting to the SDRWQCB.

SIGNATURE Sharon K Taylor *Date* 12/3/07

SIGNATURE _____ *Date* 12/3/07


CALIFORNIA
Oceanside
Vista
Buena Vista Lagoon
(El Salto Watershed)
San Marcos
Escondido
Carlsbad
Encinitas
Solana Beach
Poway
Del Mar
San Diego
PACIFIC OCEAN
Santee
La Jolla
San Diego
El Cajon
Coronado
Chula Vista
National City
Imperial Beach
San Diego County
MEXICO
UNITED STATES
Department of the Interior
Buena Vista Lagoon
San Diego County
Figure 1. Spill Location


Buena Vista Lagoon
PACIFIC OCEAN
UNITED STATES
Department of the Interior
Buena Vista Lagoon
San Diego County
Figure 2. Sewage Spill Location

Work Plan for Supplemental Environmental Project Proposal

Buena Vista Lagoon Restoration – Engineering Studies and Analyses
November 30, 2007

A. Scope of work

Buena Vista Lagoon has been adversely impacted over time by a concrete weir built across the ocean entrance in 1940's that controls the water level. Unique among the county's six coastal lagoons, Buena Vista Lagoon currently has no tidal flushing due to its present elevation and configuration. Historically, the lagoon was a tidal system. The presence of the weir at the mouth of the lagoon, combined with increasing sediment and nutrient loading has reduced the depth and circulation of the lagoon, accelerated the growth of cattail, bulrush, and algal growth, and lead to the decline of biodiversity and increased vector problems. Numerous agencies and organizations have been working toward restoring the lagoon including, but not limited to, the USFWS, DFG, State Coastal Conservancy, Southern California Wetlands Recovery Project, and the Carlsbad Watershed Network.

The first phase of the restoration effort was completed in 1999 and consisted of a field program to collect data on the fauna, flora, and water quality of the lagoon. The second phase, initiated in 2004, would characterize existing conditions, identify constraints, develop restoration alternatives, analyze the restoration alternative, and would prepare and apply potential alternative evaluation methodology in determining the ultimate configuration of the lagoon and its hydrologic regime. Initial studies and analyses required in this second phase have been funded by the USFWS and State Coastal Conservancy (SCC), yet additional engineering studies and analyses required for the completion of the lagoon restoration plan and have not been completed due to a lack of a funding source.

This SEP proposal seeks funding to provide critical engineering analysis and studies to help restore the habitat and recreational resources of Buena Vista Lagoon. These studies would include coastal and fluvial processes and wetlands engineering.

B. Task descriptions

Below is a list of task descriptions of the currently unfunded engineering studies and analysis for the Buena Vista Lagoon Restoration Project. Descriptions are excerpted from the Everest International Consultants, Inc. Buena Vista Lagoon Restoration Repor**t.**

Coastal Processes

Ebb and Flood Bar Growth

This task consists of analyses aimed at estimating the volume and growth rate of the ebb bar and flood bar that would form after opening the new tidal inlet. This information is needed to evaluate maintenance (dredging, excavation, and disposal) as well as to assess impacts to upcoast and downcoast beaches associated with sand trapped in the bar system. This task is interrelated with the shoreline morphology task described below.

Shoreline Morphology

This task consists of numerical modeling aimed at estimating the change in shoreline position (e.g., mean sea level shoreline) due to project-related changes to the littoral processes. This information is needed to assess the impacts of inlet channel stabilization structures (e.g., jetties) as well as the impacts of the ebb and flood bar system on upcoast and downcoast beaches. This task is interrelated with the ebb bar and flood bar growth task above.

Coastal Erosion Protection

This task consists of analyses aimed at designing erosion protection for the area in the immediate vicinity of the tidal inlet. This information is needed to protect the properties on either side of the tidal inlet from project-induced erosion associated with the jetties and ebb/flood bar system. This task is interrelated with the shoreline morphology task described above.

Surfing Impact Assessment

This task consists of analyses aimed at estimating the nearshore wave conditions under the salt water and mixed water alternatives and comparing those conditions and comparing those conditions with existing conditions. This information is needed to avoid, minimize, and mitigate project-related impacts to surfing resources. This task is interrelated with the shoreline morphology and ebb/flood bar tasks described above.

Inlet Trafficability

This task consists of analyses aimed at estimating the percentage of time that the tidal inlet would be unsafe for pedestrian traffic along the beach area. This information is needed to avoid, minimize, and mitigate project-related impacts to lateral beach access.

Beach Area Loss

This task consists of analyses aimed at estimating the recreational beach area that would be lost due to construction of tidal inlet stabilization structures under the salt water and mixed water alternatives. This information is needed to avoid, minimize, and mitigate project-related impacts to public beach area.

Fluvial Processes

Fluvial Hydraulics

This task consists of numerical modeling aimed at estimating the fluvial hydraulic response (water levels and water velocities) of the three restoration alternatives. This information is needed to assess the impact of the three alternatives on flooding within and around the lagoon. An understanding of the fluvial hydraulics is also needed to analyze fluvial sedimentation from the upstream watershed (see below). This task is interrelated with the inlet stability analysis.

Fluvial Sedimentation

This task consists of numerical modeling and/or empirical analyses aimed at estimating the fluvial sedimentation under the three restoration alternatives. This

information is needed to prepare cost estimates for the maintenance dredging of sediment from the upper watershed.

Wetlands Engineering

Existing Structure Investigation

This task consists of numerical modeling and/or empirical analyses aimed at estimating the fluvial sedimentation under the three restoration alternatives. This information is needed to prepare cost estimates for the maintenance dredging of sediment from the upper watershed.

Geotechnical Investigation

This task consists of field sampling, testing, and analyses as well as desktop analyses to determine the geotechnical properties of the sediment that will remain in the wetlands and those that will be disposed of onsite and/or offsite. This information is needed to develop a sediment management plan for the material excavated/dredged from the project area.

Soil Characterization

This task consists of field sampling, testing, and analyses to determine the physical, chemical, and biological properties of the sediment that will need to be disposed of (onsite and/or offsite) as part of the restoration project. This information is needed to develop a sediment management plan for the material excavated/dredged from the project area. This effort would augment the sediment characterization work completed by Battelle Memorial Institute in 2002/2003.

Utility Protection and Realignment

This task consists of investigations and analyses aimed at designing realignment plans and/or protection structures. This information is needed to protect the existing utility infrastructure within the restoration project area from project-related impacts (e.g., dredging). This task is interrelated with the grading plan task described above.

Structural and Seismic Investigations

This task consists of investigations and analyses aimed at designing channel and foundation protection structures. This information is needed to protect the existing transportation infrastructure within the restoration project area from project-related impacts (e.g., dredging, increased water speeds, and increased marine organism activity). This task is interrelated with the grading plan task described above.

Construction & Maintenance

Construction Methodology

This task consists of the development of various methods to construct the three restoration alternatives. This information is needed to assess the environmental impacts (e.g., traffic, noise, and air quality) associated with construction activities and support the preparation of construction cost estimates. This task is interrelated with the grading plan task described above.

Construction Cost Estimates

This task consists of the preparation of construction cost estimates for the three restoration alternatives. This information is needed to assess the funding requirements for construction of the various restoration alternatives. This task is interrelated with the grading plan and construction methodology tasks described above.

Maintenance Cost Estimates

This task consists of the preparation of maintenance cost estimates for the three restoration alternatives. This information is needed to assess the funding requirements for long-term maintenance of the various restoration alternatives as well as to help establish maintenance responsibilities for the various agencies and organizations. This task is interrelated with the fluvial sedimentation and ebb/flood bar tasks described above.

Impact Assessment

Visual Simulations

This task consists of preparing visual simulations of the restored wetlands to illustrate the percentage of time that the ground would be exposed due to changes in water levels associated with tidal exchange under the salt water and mixed water alternatives. This information is needed to assess the visual impact of the project by people that would view the lagoon from the high ground areas surrounding the lagoon. This task is interrelated with the tidal hydraulics task described above.

Water Quality

Lagoon Water Quality

This task consists of numerical modeling and/or empirical analyses aimed at estimating the concentration of water quality constituents within the lagoon under the three restoration alternatives. This information is needed to help assess the project-related impacts on lagoon water quality. This task is interrelated with the tidal hydraulics, fluvial hydraulics, and fluvial sedimentation tasks described above.

Nearshore Water Quality

This task consists of numerical modeling and/or empirical analyses aimed at estimating the concentration of water quality constituents within the nearshore coastal waters near the project site under the three restoration alternatives. This information is needed to help assess the project-related impacts on nearshore water quality. This task is interrelated with the tidal hydraulics, inlet stability, ebb/flood bar, fluvial hydraulics, and fluvial sedimentation tasks described above.

C. Budget & Schedule

Potential timeframes and budget allowances to complete the engineering analyses were developed based on prior experience with similar wetlands restoration projects in Southern California. The analyses were also grouped according to work type. The results of this effort are shown in Table 1, which presents the grouping, timeframe, and allowance for each analysis. Adjustments in the project plan may need to occur based on initial studies. The total budget allowance, including overhead and contingency to complete the preliminary engineering tasks, was estimated to be $1.86 million.

Table 1. Timeframe and Budget Allowance Estimates for Engineering Analyses

Analysis	Grouping	Timeframe	Allowance
Ebb & Flood Bar Growth Shoreline Morphology Coastal Erosion Protection Surfing Impact Assessment Inlet Trafficability Beach Area Loss	Coastal Processes	6-12 months	$461,500
Fluvial Hydraulics Fluvial Sedimentation	Fluvial Processes	3-6 months	$175,000
Existing Structure Investigation Geotechnical Investigation Soil Characterization Utility Protection & Realignment Structural & Seismic	Wetlands Engineering	3-6 months	$565,000
Construction Methodology Construction Cost Estimates Maintenance Cost Estimates	Construction & Maintenance	1 - 2 months	$130,000
Visual Simulations Traffic Capacity	Impact Assessment	2 - 4 months	$175,000
Lagoon Water Quality Nearshore Water Quality	Water Quality	3 - 6 months	$351,000
	TOTAL:	**9 - 18 months**	**$1,860,000**

* Based on simultaneous completion of parallel tasks with full funding.

D. Methods and materials
Standardized engineering methods that are accepted throughout the industry will be utilized. A quality assurance/quality control review process will be developed and utilized to ensure data collected and reports provided meet the needs of the restoration effort.

E. Resources needed
The co-trustees have access to the resources needed, if this SEP proposal is funded. The engineering work will be contracted out and administered through the DFG. Both the FWS and DFG will oversee the completion of projects as co-trustees.

F. Regulatory issues (environmental reviews, permits, etc.)
In spring 2006, work began on the environmental review process required to comply with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). A public meeting was held in April 2007 to solicit input regarding the scope of the environmental document. Preparation of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is underway and is the next step in the CEQA/NEPA process. The analyses/studies must be completed in order to provide the information necessary to prepare the EIR/EIS.

H. Work products and documents to be retained for records
Copies of all final work products and documents will be retained for records. In addition, both the USFWS and DFG as federal and state agencies have records retention policies.