

Sausalito-Marín City Sanitary District
Supplemental Environmental Project Description

Project Name:	The Marine Mammal Center Rebuild – Milestone C: Water Distribution Piping
Location:	The Marine Mammal Center, 1065 Fort Cronkhite, Sausalito, CA 94965
Project Proponent:	Bob Simmons, District Manager, Sausalito-Marín Sanitary District
Phone Number:	(415) 331-4712
Category:	Marine Mammal Protection, Enhancement, and Research
General Cost:	\$119,000
Expected Completion Date:	March 2011

Project Overview

Need for Project: In 2005 The Marine Mammal Center (TMMC or Center) began construction to rebuild its facilities. The original buildings were modified shipping freight containers that were in disrepair after 20 years of heavy use. The pools and filtration systems exposed to direct sunlight had eroded. The outmoded facilities could no longer support the Center's work and it was clear the cost of maintaining outdated equipment and temporary structures long past their usable life span was no longer sustainable.

Below are the major components of TMMC's facilities rebuild. Phase I of these components is complete. This includes all of the buildings and roughly half of the pools.

- 30 new pens and pools designed specifically for animal care and research. A new Intensive Care Unit that will include 16 pens for individual animal observation. The pools are all saltwater, and will vary in depth and size for each marine mammal species treated at the Center. In addition, the new pens will have shade panels covered with solar cells to generate electricity, while minimizing the amount of direct sunlight exposure to the animals. A protective fence will also be constructed to prevent the public from entering these areas and disturbing the rehabilitating animals.
- During peak season the center houses over 200 animals on site in a 210,000 gallon saltwater system. A new closed wastewater filtration system will maintain the best water quality possible at the pools. With the increased holding capacity, water consumption will remain the same because of a more robust wastewater system design.
- A single story Animal Care Building with a food preparation area, pharmacy, chart room, research laboratory, necropsy area, and viewing bays for the public. These viewing areas, which will also include interpretive exhibits, will give visitors the ability to observe the various animal care functions at the Center.

- A two-story Community Education Center Building; the first floor will be the primary visitor entry point and will include the marine science exhibit gallery, information desk, education classroom, while the second floor will consist of administrative offices.
- A two-story Veterinary Science and Research Building. This building will also house staff from administrative and program departments. In addition, visiting scholars, Ph.D. fellowship students, and externs from around the world will have workspace for research, access to the Center's database, tissue bank and archived records spanning our over 30 years of operation.
- An Upper Level Public Observation Deck located between the Veterinary Science and Animal Care Buildings to allow the public to safely look out over the animal pens and pools without compromising the rehabilitation process.

Project Description: The proposed project is part of the civil work necessary to complete the upgraded TMMC facilities as part of Phase II of the rebuild. Specifically, the scope of work involves installation of piping and eight large concrete vaults to gain access to the distribution piping for the newly constructed pools. Piping for a new life support system is also included as are valves and control hardware. The vaults are large and the work includes deep trenching between vaults for piping installation. Installed piping is backfilled with slurry and the vaults are set with special lids and ladders for staff access. A design drawing of the proposed work is included in **Appendix A**.

Project Timeline

Task Description	Estimated Completion Date/Due Date
Contractor Mobilization	March 15, 2010
Place Vaults and Piping; Backfill, Spoils Removal, and Site Stabilization	April 10, 2010
Quarterly Progress Report	July 20, 2010 and October 20, 2010
Draft Final Project Report	January 14, 2011
Final Report	March 1, 2011

Milestone C Project Budget

Item Description	Cost
Materials (Pipe, Valves, Vaults, Concrete, Misc.)	\$ 44,824
Construction (Equipment, Labor, Subcontractors, etc.)	\$ 74,176
Total	\$ 119,000

Project Performance Standards and Measures

Judgment of project performance is based on generally accepted standards for construction of civil works. The project will be judged successful if it is installed per design plan and specifications and is fully functional per design intent.

Reporting to the Regional Water Board

A progress report shall be provided to the Regional Water Board quarterly from the start of the project up until a final report is submitted (based the current SEP timeline, a total of approximately two reports shall be submitted on the 20th day of July and October). Copies of these reports will also be submitted to the oversight/audit organization.

A final report will be provided to the Regional Water Board, the Division of Financial Assistance of the State Water Board, and the oversight/audit organization as outlined in Section H.3 of the State Water Board Policy on SEPs, dated Feb. 3, 2009. The final report will be submitted by March 1, 2011. The final report will describe the tasks completed, an accounting of funds expended, and describe whether the measures of success identified were met, and if not met, identify possible reasons for why they were not met and suggestions for changes to project elements and strategies to guide future efforts by the District and others.

Third Party Project Oversight

To ensure completion of commitments and appropriate expenditure of funds, oversight and audit of the project will be conducted by the San Francisco Estuary Partnership (SFEP). Third party oversight costs shall not be from the original project budget, but shall be in addition to the budget and paid for by the District. All reports must be sent to the following:

Carol Thornton
Contractor to SFEP
1515 Clay Street, Suite 1400
Oakland, CA 94612
(510) 622-2419
cthorton@waterboards.ca.gov

Continuing Maintenance of Project

Continuing maintenance of facility improvements funded by this SEP will be the responsibility of the TMMC staff. Maintenance funds will be included in the Facilities Maintenance Budget; a budget line item in the TMMC annual budget.

Supplemental Environmental Project (SEP) Qualifying Criteria

Measures Above and Beyond the Discharges Obligations: The Standard Criteria and Reporting Requirements for SEPs require that a SEP consist of measures that go above and beyond all legal obligations of the District. The District has no legal obligation to support the TMMC or its very important work.

Direct Benefit to Water Quality, the Beneficial Uses of Waters of the State, and the General Public: Marine mammals in coastal waters are influenced by several anthropogenic factors; discharge from sewage treatment facilities, agricultural and surface runoff, chemical pollution, and watercraft. The Marine Mammal Center provides the opportunity to study these factors and assess their influence on the health of the marine environment. Three examples of these efforts follow:

Epilepsy in Sea Lions & Studying of Domoic Acid Poisoning

Inquiry continues into the effects of domoic acid, a byproduct of harmful algal blooms or “red tides,” on sea lions. In 2007, the Center’s researchers published a paper in the Proceedings of the Royal Society identifying epilepsy in sea lions resulting from previous low dose exposure to the toxin. This is important, as similar effects could occur in people if they ate seafood containing these levels of domoic acid. Researchers plan on studying behavioral patterns of sea lion pups exhibiting epilepsy from domoic acid exposure during development.

PCBs and Developed Risk Assessment Models

Polychlorinated biphenyls (PCBs) are mixtures of manmade chemicals such as oily liquids, solids or sometimes odorless vapors. They are no longer produced in the United States but are still found in the environment. When PCBs enter the water, fish ingest them and in turn, sea lions and other marine mammals and humans eat the fish. California sea lions are exposed to some of the highest levels of contaminants worldwide because of their geographical range. The Center analyzed blubber samples from female sea lions and their pups, and learned that the contaminants crossed the placenta, thus exposing fetuses during critical months of their development. This study helps set the parameters for developing risk assessment models for marine mammals.

Understanding the Health of the Bay

The harbor seal habitat of San Francisco Bay Area coastal waters is influenced by several human-produced factors, including sewage, agricultural and surface runoff, chemical pollution, and watercraft. Not only is it important to protect the seal population from toxic exposure that could threaten its survival, but the seals also serve as good gauges for the safety of the marine environment in relation to human beings.

Additionally, by allowing the general public access, the TMMC is enhancing the public’s knowledge of the marine environment and the water quality issues that may impact marine mammals and other marine flora and fauna.

No Direct Fiscal Benefit to Regional Water Board Function, its Members, its Staff, or Family of Members or Staff: The proposed SEP in no way provides direct fiscal benefit to Regional Water Board functions, its members, its staff, or family of its members or staff.

Nexus between the Violation and the SEP: Section IX.E of the Water Quality Enforcement Policy (WQEP) states that the SEP must have an appropriate nexus between the violation and the SEP. The proposed SEP is related (as indicated above) to understanding the overall environmental risks associated with the violation. TMMC’s location in the Marin Headlands makes the SEP geographically proximate to the District’s location.

Documented Support by Other Public Agencies, Public Groups, and Affected Persons:
The TMMC project has documented financial support from the following public and private organizations:

The Geoffrey C. Hughes Foundation
The William and Gretchen Kimball Fund
National Oceanic and Atmospheric Administration (NOAA)
The David & Lucile Packard Foundation
The Richard and Rhoda Goldman Fund
The Firedoll Foundation
The Marin Community Foundation
Wayne & Gladys Valley Foundation
The Roberts Foundation
The Koret Foundation
The Kresge Foundation
Thelma Doelger Trust for Animals
The Gordon and Betty Moore Foundation
David P. Wheatland Trust
William Randolph Hearst Foundation
DMARLOU Foundation
Thelma Doelger Charitable Trust
Bernice Barbour Foundation
The Irma Penniman Khan Conservation Education Foundation
Schow Foundation
McBean Family Foundation
Elinor Patterson Baker Trust
The Kimball Foundation
The Lasky Charitable Trust
The Laurel Foundation
Morris Stulsaft Foundation

Area Directly Benefited by SEP: TMMC facility is located in the Marin Headlands which is proximate to the District's facilities. However, the research conducted at TMMC provides benefit state-wide, nationally, and internationally.

Project Stage and Compliance with the California Environmental Quality Act (CEQA):
The first phase of TMMC rebuild has been completed. The proposed SEP is a critical part of the second phase of the rebuild. Both phases are fully compliant with CEQA.

The SEP as a Basis for Funding from Other Sources: The proposed SEP could be used as a basis for funding from other administrative civil liability funded SEPs. However, the District has no specific knowledge of any other proposals.

TMMC Institutional Stability and Capacity: The Marine Mammal Center has been in operation since 1975. It is the only facility between Mendocino and San Luis Obispo

counties (600 miles of California coast line) that is federally authorized to rescue and rehabilitate marine mammals. The Center's physical operations began with a handful of pens and pools for its patients, and freight containers used as make-shift offices for staff. Many thousands of animal rescues later, it has grown into a veterinary teaching hospital that integrates day-to-day rescue and rehabilitation work with that of scientific research and marine science education. TMMC has successfully completed the first phase of the rebuild demonstrating the capacity to complete the next phase.

Success Criteria and Long Term Monitoring: The SEP includes success criteria as indicated above (successful completion and operation of the civil improvements). Maintenance of the facilities provides the necessary monitoring to assure long term project viability.

SEP Funding Available for Project

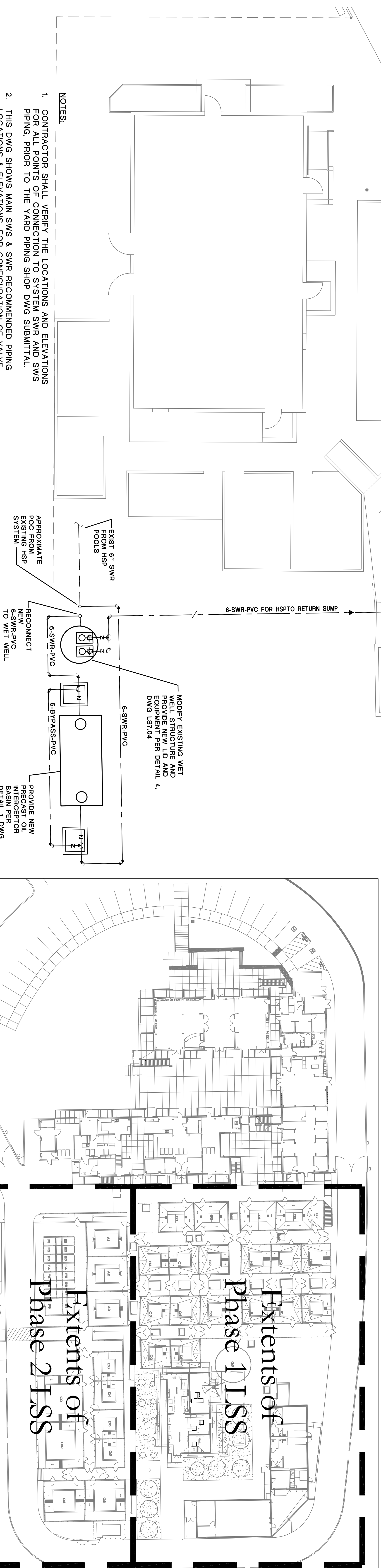
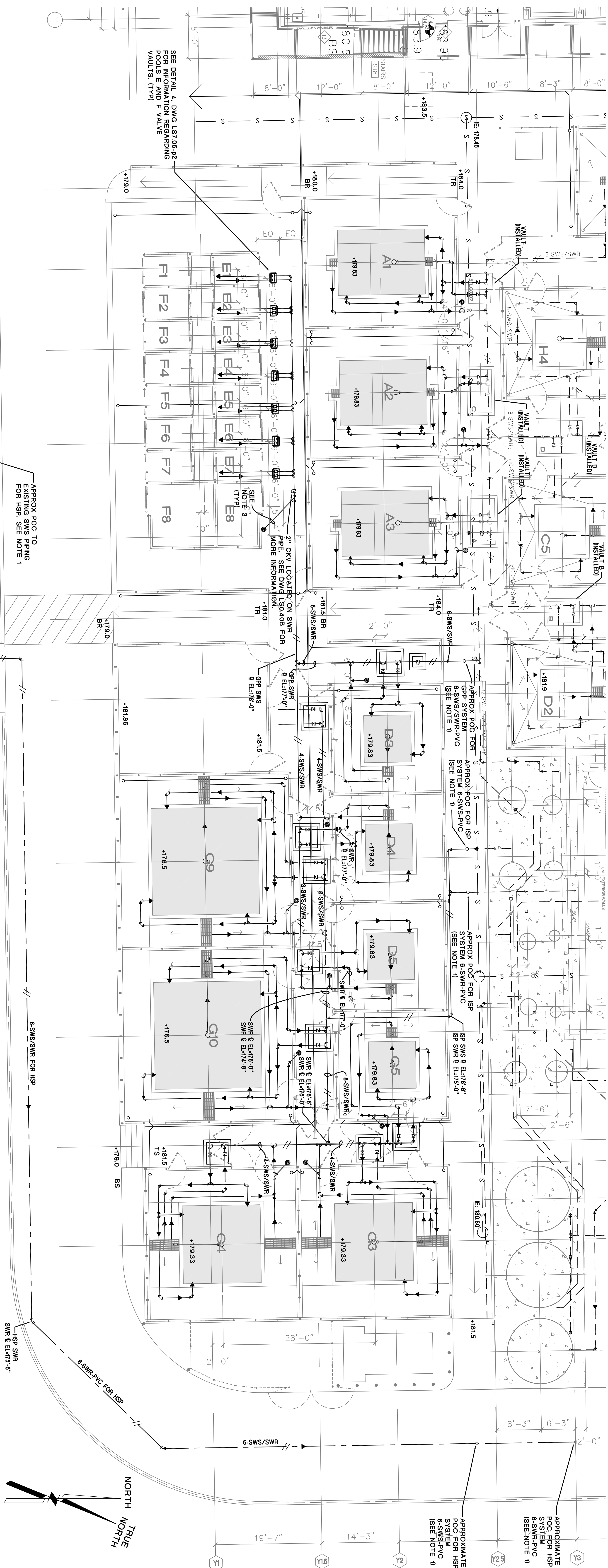
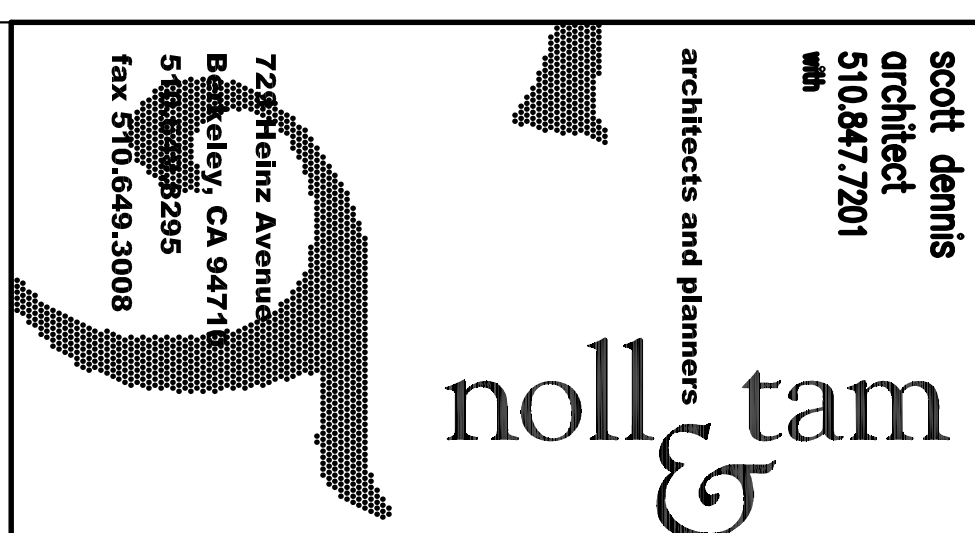
The District will make \$119,000 available for the SEP, in accordance with the Complaint. Third party oversight cost is estimated at \$6,048 (see **Appendix B**).

Summary

The goal of the project is to assist TMMC in completing phase II of its facilities rebuild. The SEP will contribute approximately 15% of the necessary funding to complete necessary yard piping and piping access vaults. The remaining funds have been secured from other sources by TMCC. The District believes that this project is an appropriate response to a Complaint related problem in a manner that fulfills all SEP requirements.

APPENDIX A

YARD PIPING PLAN



LSS YARD PIPING PLAN

LSS SITE KEY MAP

Pool Coordination Set - Phase 2
All Previous Drawings Dated
Prior to 08/22/08 Shall Not Be
Used for Construction or Bids

THE MARINE MAMMAL CENTER

1006 POST CROWN-ITE
GOLDEN GATE
NATIONAL RECREATION AREA
SARATOLLO, CALIFORNIA



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
DENVER SERVICE CENTER

REGION	COUNTY	STATE
PACIFIC	MAHON	CALIFORNIA

COORDINATION SET PHASE TWO

SHEET TITLE
LSS SITE KEY MAP
AND YARD PIPING PLAN

REVISIONS

NO.	DATE	DESCRIPTION

DATE **8.22.08**

DRAWN **J.D.K.**

CHECKED **J.D.K./C.E.**

SCALE **AS SHOWN**

JOB NO. **2218**

SHEET NUMBER

LS1.01-p2

POOL COORDINATION SET - PHASE TWO

APPENDIX B

THIRD PARTY OVERSIGHT COST ESTIMATE

SAUSALITO MARIN SANITARY DISTRICT OVERSIGHT/AUDIT COST ESTIMATE
CIWQS REGULATORY MEASURE No.

Oversight Tasks based on Milestones in SEP	No. of tasks	Est. Hours/task	Est. Hours
CIWQS entry of SEP milestones/deliverables into Regulatory Measure for ACL Order	1	2	2
Update CIWQS when milestones/deliverables are met as necessary	6	0.25	1.5
Review and file (in ECM) 2 progress reports; assess progress and appropriate expenditure of funds; identify any problems, and prepare memo to Water Board staff describing problems with a recommendation for resolution. If no problems identified, memo should so note. Memo should also be filed in ECM.	2	8.25	16.5
Inspection of site to verify activities were completed (shortly after construction completion)	1	4	4
Prepare memo to Water Board staff describing observations made during site inspections, identify any problems and provide a recommendation for resolution. If no problems identified, memo should so note. Memo should also be filed in ECM.	1	8	8
Review and file (in ECM) 1 final report (both draft and final) documenting completion of SEP; audit appropriate expenditure of funds; identify any problems, prepare memo to Water Board staff describing problems with a recommendation for resolution, and prepare documentation approving or denying completion of project.	1	40	40
SUBTOTAL			72
Contingency to deal with unpredictable matters that arise such as discharger forgetting to submit progress reports, or its requests for budget changes and schedule adjustments. (10% of SEP oversight time/cost)			7.2
SFEP Director's time to manage oversight contract and other management costs. (10% of SEP oversight time/cost)			7.2

TOTAL SEP Oversight Staff Time (hours) 86.40

(ABAG staff cost range of \$60-\$70/hr) \$70.00

TOTAL SEP Oversight Cost (dollars, using ABAG \$/hr) **\$6,048**

Timeframe for SEP completion (1 year)	
	1
(SEP Oversight Staff Time) / (SEP Completion Time) in hr/yr	86