

1. Component NAVY	FY 2005 MILITARY CONSTRUCTION PROGRAM	2. Date 13 JAN 2004
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3. Installation and Location/UIC: M00681 MARINE CORPS BASE CAMP PENDLETON, CALIFORNIA	4. Project Title TERTIARY SEWAGE TREATMENT PLANT (INCREMENT II)
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5. Program Element 0202056M	6. Category Code 83110	7. Project Number P002A	8. Project Cost (\$000) 25,690
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9. COST ESTIMATES

Item	UM	Quantity	Unit Cost	Cost(\$000)
TERTIARY SEWAGE TREATMENT PLANT (INCREMENT II) (4,499 SF)	m2	418		40200
OPERATIONS/MAINTENANCE BLDG (4,499 SF) (4,499 SF)	m2	418	1,711.23	(720)
ADVANCED WASTEWATER TREATMENT FACILITIES	LS			(4620)
BUILT-IN EQUIPMENT	LS			(2700)
CHEMICAL STORAGE AND HANDLING	LS			(580)
DISINFECTION	LS			(2330)
INFLUENT PUMP STATION	LS			(4490)
ODOR CONTROL	LS			(470)
PLANT ELECTRICAL CONTROL SYSTEM	LS			(4570)
PLANT WATER SYSTEM	LS			(510)
POTABLE WATER SYSTEM	LS			(170)
PRELIMINARY TREATMENT	LS			(1620)
RELOCATE RECYCLING FACILITY	LS			(310)
SECONDARY BIO-TREATMENT W/NUTRIENT REMOVAL	LS			(7820)
SLUDGE HANDLING AND DISPOSAL	LS			(8630)
TECHNICAL OPERATING MANUALS	LS			(630)
INFORMATION SYSTEMS	LS			(30)
SUPPORTING FACILITIES				5300
ELECTRICAL UTILITIES	LS			(1190)
MECHANICAL UTILITIES	LS			(590)
PAVING AND SITE IMPROVEMENTS	LS			(2490)
DEMOLITION	LS			(280)
ENVIRONMENTAL MITIGATION	LS			(750)
SUBTOTAL				45500
CONTINGENCY (5%)				2280
TOTAL CONTRACT COST				47780
SIOH (6%)				2870
SUBTOTAL				50650
LESS INCREMENT I FUNDING	LS			-24960
TOTAL REQUEST ROUNDED				25690
TOTAL REQUEST				25690

10. Description of Proposed Construction

Construct a 5 million gallon per day (mgd) southern regional, tertiary sewage treatment plant (STP) and sludge treatment facility near the location of existing STP 13 to treat raw sewage from the STP 13 tributary area. Construction shall include an influent pump station, preliminary treatment facilities (flow measurement/sampling, screening, and grit removal), secondary treatment facilities (three biological nutrient removal channels, two conventional clarifiers, return activated sludge [RAS] pumping and waste activated sludge

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<p>[WAS] pumping), advanced sewage treatment facilities (secondary effluent equalization basin, filter influent pump station, rapid mix tank, flocculation system, filtration system, and disinfection system), chemical storage and feed systems, odor control facilities, a control room, and Electronic Monitoring System (EMS) connection. Construction also includes sludge treatment and handling facilities (two dissolved air flotation units, two anaerobic digesters and multiple sludge drying beds). Built-in equipment includes plant yard piping. Sustainable principles will be included into the design, development, and construction of the project in accordance with Executive Order 13123 and other laws and executive orders. Electrical systems include telephone, fire alarms, information systems, electronic monitoring and control system (EMCS), and back-up generator and control system. Mechanical utilities include plumbing, wet-pipe sprinkler system, heating, ventilation and air conditioning (HVAC). Supporting facilities include site and building utility connections (electrical, telephone, water, sanitary and storm sewer, and Local Area Network (LAN)). Paving and site improvements include exterior site and building lighting, facility access roads and parking, site preparation and paving, storm water management, fencing, pedestrian gates, vehicle gates, grading, earthwork, and landscaping. Project includes demolition of an existing recycling center (650 m2), Technical Operating Manuals, and environmental mitigation. This is the first component project of a phased program that will, when complete, achieve long-term regulatory compliance for the MCB Camp Pendleton wastewater systems.</p>				
<p>11. Requirement: <u>418m2</u> Adequate: <u>0m2</u> Substandard: <u>0m2</u></p> <p>PROJECT: Construct a 5.0 mgd southern regional tertiary sewage treatment plant (STP) and sludge facility at the location of existing STP 13 to treat raw sewage from the STP13 tributary area. (Current Mission)</p> <p>REQUIREMENT: An adequate southern regional treatment plant and sludge treatment facility is required to provide adequate treatment and plant capacity to handle raw sewage from STP 1, 2, 3, 8, 9, and 13 tributary areas and to accommodate projected future increases in influent quantities. The live-stream discharge of effluent must comply with the San Diego Regional Water Quality Control Board (RWQCB) Basin Plan. This project and Increment II in FY2005 is the first phase of a program to bring the wastewater system into long-term compliance with the regulatory requirements.</p> <p>CURRENT SITUATION:</p>				

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MCB Camp Pendleton is in violation of existing wastewater quality standards for the discharge of treated sewage to the Santa Margarita River and is under Cease and Desist orders (CDO's) for five STP's for failure to meet effluent requirements. MCB Camp Pendleton has a compliance date of 8 September 2004 and must provide a sewage treatment system that meets the water quality objectives and effluent limitations established by the RWQCB.

MCB Camp Pendleton currently relies on nine STPs, 67 pump stations and vehicle wash water stations, and over 150 miles of sewage collection pipelines to collect, pump and treat raw sewage and vehicle wash water from all developed areas of the base. The treated sewage discharged from each STP is required to meet effluent discharge limitations established by the San Diego RWQCB.

Original permits for STP 1, 2, 3, 8, 9 and 13 were issued by the RWQCB in 1987. In January 1989, the RWQCB issued CDOs for the six plants for failure to meet effluent quality requirements. In 1994, new CDOs were issued to update the compliance schedules and allow MCB Camp Pendleton additional time to study and implement corrective actions. MCB Camp Pendleton developed a strategy to comply with the CDO requirements that, in general, involved relocating and/or consolidating treated effluent discharge points to more favorable locations. The established requirements for STPs 1, 2, 3, 8 and 13 based on disposal of treated effluent to the Santa Margarita River. Requirements for STP 9 were based on relocating the respective discharge point west of Interstate 5 (I5) to subsurface injection wells.

MCB Camp Pendleton was unsuccessful in finding a suitable site in the Santa Margarita River Basin for percolation or injection disposal of effluent from STPs 1, 2, 3, 8, and 13. An attempt to reach an agreement with the City of Oceanside to permanently pipe treated effluent from the plants to the ocean outfall was also unsuccessful.

MCB Camp Pendleton currently has a short-term agreement with the City of Oceanside to dispose of treated secondary effluent via the City's existing ocean outfall. To reach the outfall, MCB Camp Pendleton must install a 2.2-mile pipeline from the Base through the City. The pipeline is presently under construction. The agreement is intended to allow MCB Camp Pendleton to meet State of California discharge requirements while constructing MILCON funded on-Base treatment and disposal facilities. The agreement stipulates that use of the outfall is for a five-year period commencing on the date the Base begins pumping effluent into the Outfall. The Base may exercise up to three additional option years only if it can certify to the City Council that it has secured

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<p>full project funding for the alternate disposal facilities.</p> <p>The proposed program to comply with CDO 99-41 and the Basin Plan requirements has been subdivided into multiple phases over five years with each phase representing a complete and progressive step toward overall compliance.</p> <p>IMPACT IF NOT PROVIDED: Camp Pendleton (CPEN) is required to comply with California's implementation of the Clean Water Act's National Pollution Discharge Elimination System (NPDES) permit program. CPEN's wastewater treatment plants within this project's scope operate under state issued Waste Discharge Requirements (i.e., NPDES permits). Because these plants cannot achieve or maintain compliance with their Waste Discharge Requirements, they also operate pursuant to enforcement orders (i.e., Cease and Desist Orders) issued by the state. The terms and conditions of these enforcement orders, in part, require CPEN to notify the regional water board of its long-term compliance project's completion (and full compliance with NPDES permits) by 8 September 2004. Should CPEN fail to meet this mandatory compliance date, CPEN is subject to additional civil enforcement for its ongoing environmental noncompliance. This enforcement may include a judicial sanction (e.g., a monetary penalty) to ensure future compliance.</p> <p>The construction of the southern regional treatment facility is the primary element that is necessary for ensuring compliance with RWQCB Basin Plan requirements and resolving the existing CDOs. Continued discharge from the existing STPs in violation of the NPDES permit requirements will result in continued NOV's, potential adverse impacts to the environment (to include disruption of threatened and endangered species habitat) and civil litigation. Other impacts (e.g., beach closures, impairment of Base mission) are possible.</p>				
12. Supplemental Data:				
A. Estimated Design Data:				
1. Status:				
(A) Date Design Start				092001
(B) Date Design 35% Complete				012003
(C) Date Design Completed				092003
(D) Percent Completed as of	SEPTEMBER	2003		100%
(E) Percent Completed as of	JANUARY	2004		100%
(F) Type of Design Contract				Design Bid Build

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<p>(G) Parametric Estimate used to develop cost Yes</p> <p>(H) Energy study/Life cycle analysis performed Yes</p> <p>2. Basis:</p> <p>(A) Standard or Definitive Design: No</p> <p>(B) Where Design Was Most Recently Used: N/A</p> <p>3. Total Cost (C) = (A) + (B) = (D) + (E) : \$3,691</p> <p>(A) Production of Plans and Specifications \$2,768</p> <p>(B) All other Design Costs \$923</p> <p>(C) Total \$3,691</p> <p>(D) Contract \$2,307</p> <p>(E) In-House \$1,384</p> <p>4. Contract Award 112003</p> <p>5. Construction Start 122003</p> <p>6. Construction Complete 122005</p> <p>B. Equipment associated with this project which will be provided from other appropriations: NONE</p> <p>JOINT USE CERTIFICATION:</p> <p>The Director Land Use and Military Construction Branch, Installations and Logistics Department, Headquarters Marine Corps certifies that this project has been considered for joint use potential. Unilateral Construction is recommended.</p> <p>Activity POC: KARLA KRIEGER Phone No: (760) 763-0135</p>			