



Newport News, Virginia
Tyson's Corner, Virginia
Virginia Beach, Virginia
Wilmington, North Carolina
Jacksonville, Florida

Contract Summary

Contract: AE AND ENVIRONMENTAL CONSULTING SERVICES FOR WATER/WASTEWATER/STORM WATER ENVIRONMENTAL COMPLIANCE SUPPORT IN THE NAVFAC AREA OF RESPONSIBILITY AND DOD INSTALLATIONS (N69450-11-D-0046)

Location: NAVFAC Southeast Area of Responsibility & DOD Installations

Client: NAVFAC Southeast

Value: \$5,000,000.00

Scope: Water/Wastewater & Environmental Compliance Support; Disinfection Byproducts Rule Study; Wastewater Management Alternatives Assessments; Sanitary Surveys; Stormwater Sampling and Analysis; Sanitary Sewer Evaluations; Site Compliance Evaluations

Date: March 2011 – March 2016

Background

AH Environmental Consultants, Inc. was reselected as the prime contractor on a second 5-year contract to perform water, wastewater and environmental compliance support for the United States Naval Facilities Engineering Command (NAVFAC) Southeast. The following project descriptions provide an example of the types of projects that are currently being performed or have been completed:

Wastewater Reuse, Naval Air Station Jacksonville, Florida

Naval Air Station Jacksonville (NAS JAX), a multi-mission Base hosting more than 100 tenant commands, is the third largest naval installation in the United States. The installation serves as the host for the Patrol Wing Eleven as well as Sea Control Wing Atlantic and its five squadrons of S-3B aircraft, and Helicopter Antisubmarine Wing Atlantic, and five squadrons of SH-60/HH-60 helicopters.

NAS JAX tasked AH Environmental with designing and permitting an effluent reuse spray irrigation disposal system to be built and operated within the Base boundaries. The project, still ongoing, involves developing an engineering report for land application of reclaimed water, pipeline design, spray field design including layout, controls, telemetry and modifications to the wastewater treatment plant permit for the state of Florida.

Specific tasks for this project include:

- Conducting underground utility and topographic survey of the proposed pipeline route from the golf course to the spray site at the Antenna Farm;
- Geotechnical assessment of the Antenna Farm application area;
- Preparing and submitting detailed (50 and 100%) pipeline design and specifications;
- Designing and selecting spray field system including headers, trunks, pressure regulating valves and sprinklers; and
- Permitting.

Finally, as this project will be constructed in cooperation with the City of Jacksonville, AH will assist the City with addressing questions during the bid phase, review of bids, review of submittals, pay request reviews, review of as-built documents, and completion of required certification of construction documents required by the modification of the wastewater treatment permit.

Annual Comprehensive Site Compliance Inspection (CCI) and Report and Update of Storm Water Pollution Prevention Plan (SWP3), Naval Air Station Corpus Christi, Texas

AH conducted the annual Comprehensive Site Compliance Evaluation (CCI) in conjunction with the Storm Water Pollution Prevention Plan (SWP3) update at Naval Air Station Corpus Christi. The site compliance evaluation consisted of visual inspections of all aspects of stormwater BMPs with recommendations for improvements where warranted. The SWP3 was updated using the information gathered during the site compliance evaluation and the new Texas General Permit No. TXR050000 for stormwater associated with industrial activity. The permit sectors under which NAS Corpus Christi was governed were updated to more fully reflect the operations conducted on the Base. This resulted in the selection of Sector K (Hazardous Waste Treatment, Storage, and Disposal Facilities), Sector N (Scrap and Waste Recycling Facilities), Sector P (Land Transportation and Warehousing), Sector S (Air Transportation Facilities), and Sector AB (Transportation Equipment, Industrial or Commercial machinery Manufacturing Facilities) as pertaining to the industrial activities on NAS Corpus Christi. Facilities removed from the SWP3 as not meeting the definition of a permitted industrial activity included the Morale, Welfare and Recreation Facilities, the golf course maintenance building, grounds maintenance, Base Exchange gas station, the government gas station, the Public Works buildings, the fire station, the bulk fuel farm, the Army and Navy reserve facilities, and the Defense Logistics Administration (DLA) warehouses.



The stormwater conveyance system in the industrial area was surveyed using a global positioning system (GPS). The remainder of the Base stormwater conveyance system was field-verified and the mapping updated when new components were identified. As part of the SWP3 update, the storm water drainage basin boundaries were updated to reflect one outfall per drainage basin and new storm water sampling locations were suggested. The GPS'd coordinates were entered into a geodatabase that could be uploaded into the NAS Corpus Christi geodatabase by Base personnel.

Sanitary Sewer Evaluation Study, Naval Air Station Meridian, Mississippi

AH is currently completing a second phase of SSES work at NAS Meridian. This project is a follow up project to a Phase I project conducted in 2007. As part of this second phase of work, AH will perform 161 manhole inspections and smoke test and CCTV approximately 23,000 lf of sanitary sewer system pipeline. All work is being performed in accordance with NASSCO protocols. As was provided in the previous study, AH will submit a comprehensive report that will describe survey execution and a summary of all data obtained, original field

forms and photographs, and a tabulation of any deficiencies observed and recorded during the inspection of the sanitary sewer collection system.

Sanitary Sewer Evaluation Study (I/I Study), Naval Air Station-Joint Reserve Base New Orleans, Louisiana

Naval Air Station Joint Reserve Base New Orleans is one of two Joint Reserve Bases in the country. The Base currently supports three Naval Air Reserve Squadrons, three Marine Forces Reserve units, a Coast Guard Air Station, a Louisiana Air National Guard fighter wing, an Army Reserve unit, a Fleet Readiness Center, a Navy Reserve Operational Support Center, and other support units. Nearly 5,400 military, Department of Defense civilian employees and contractors work at the base daily, and approximately 1,700 family members live in more than 900 housing units.

Wastewater generated at the Base is collected for treatment at an off-Base facility. The wastewater collection system consists of approximately 28,653 feet of gravity mains, 171 junctions (primarily manholes), and thirty-two (32) pump stations.

Naval Facilities Engineering Command Southeast (NAVFAC SE) contracted AH Environmental to assess the wastewater collection system at Naval Air Station Joint Reserve Base New Orleans (Facility) and to present deficiencies along with recommendations and cost estimates (pump station design, capacity and/or performance were not part of the scope). Assessments were comprised of visual inspections performed from the ground surface at manhole junctions, smoke testing, and closed-circuit television (CCTV) inspections. Findings were presented in report form and incorporated into the Facility's Geographic Information System (GIS).

Project fieldwork was unexpectedly hindered due to wide-spread surcharging of the collection system (wastewater accumulations above the inverts of outgoing pipelines). As a result, AH worked with the Facility's Public Works Department (PWD) to manually pump-down intermediate pump stations in an effort to identify impacted areas and to explore alternative operating procedures and/or necessary system modifications that would allow the completion the assessments. Following two of six planned weeks of fieldwork, AH drafted a memorandum describing preliminary findings and alternative approaches for assessing surcharge impacted areas.



Wastewater Management Alternatives Assessment, Naval Station Mayport, Florida

The project included mainly investigating viable alternatives for handling wastewater generated at NS Mayport. AH conducted a study to identify Wastewater Management Alternatives (WMA) and select a Preferred Course of Action (PCOA) from a limited number of offsite pumping and onsite treatment alternatives. The report developed by AH outlined steps taken to determine the most feasible approach to comply with both a revised and more stringent NPDES Permit and TMDL for nitrogen discharges to the Lower St Johns River, identified by the Florida Department of Environmental Protection as impaired. AH identified the most prudent course of action to bring the NS Mayport WWTP into compliance with upcoming regulatory deadlines. The report also identified options to upgrade the overall energy efficiency and sustainability of the wastewater collection system through a focused feasibility study. The selection of a PCOA was based on refined design and budgetary cost estimate assumptions detailed in a previously submitted AH report. The wastewater management alternatives assessment process involved development of a detailed description of the Wastewater Management Alternatives assessed, determination of the design flows that would be used to dictate the design of the alternatives, development of detailed conceptual designs for the assessed alternatives, development of detailed cost estimates for the assessed alternatives, development of a

ranking and scoring process by which the alternatives could be compared with the goal of identifying a Preferred Course of Action (PCOA), and lastly, provision of a recommended course of action and schedule for implementing the PCOA.



Sanitary Survey of Drinking Water System, Naval Station Guantanamo Bay Cuba

As part of the ongoing effort to ensure consistent and continuous production and delivery of safe potable water, Naval Facilities Engineering Command Southeast contracted AH Environmental Consultants, Inc. to conduct a Sanitary Survey of the drinking water system at the Naval Station Guantanamo Bay. The 2011 Sanitary Survey was conducted according to Chapter 3 of the current Final Governing Standards for Cuba (1994) and Chapter 3 of the Overseas Environmental Baseline Guidance Document.

The 2011 Sanitary Survey report was prepared following a site visit to the base in September 2011 by AH Environmental Consultants, Inc. The Sanitary Survey included a physical inspection of the treatment, distribution and storage facilities for both the Windward and Leeward portions of the Base, as well as an examination of operation and maintenance practices, interviews with Public Works Department and contractor personnel, and a review of compliance records and other relevant documents. The 2011 Sanitary Survey report provided an evaluation of the drinking water infrastructure and system management with respect to its ability to consistently and reliably produce and distribute safe drinking water.

Storm Water Metals Sampling and Analysis Plan, Naval Air Station Corpus Christi, Texas

AH created a Storm Water Metals Sampling and Analysis Plan (SAP) for metals contamination in conjunction with an Illicit Discharge Study (IDS) of the Storm Water System at Naval Air Station (NAS) Corpus Christi. The purpose of the SAP was to identify strategic sampling sites and plan for rain event sampling in the storm water sewer system that would help determine the origin of elevated levels of metals previously detected in storm water benchmark samples at NAS Corpus Christi.

Annual Comprehensive Site Compliance Evaluation (CCE) for Naval Air Station Fort Worth Joint Reserve Base (NASFWJRB), Texas

AH conducted the 2011 annual Comprehensive Site Compliance Evaluation for Naval Air Station Fort Worth Joint Reserve Base (NASFWJRB), Texas. NASFWJRB must perform annual CCEs as a requirement for coverage under the Texas Pollutant Discharge Elimination System Storm Water General Permit for Industrial Activities.