

Project Name

Utility Technical Study of Potable Water Systems
Public Works Center, Guam

Client / Owner

U.S. Navy, Pacific Division, Pearl Harbor, Hawaii

Year Completed

2004

Project Description & Firm's Responsibility

The purpose of the Utility Technical Study (UTS) was to evaluate the capacity, condition, and reliability of the U.S. Navy's potable water systems at various naval installations on Guam. The UTS would determine whether present and future potable water requirements can be met. Weaknesses in the system were identified and corrective action recommended.

Work involved conducting a field investigation of the water systems at Naval activities in the Apra Harbor Complex, NAVMAG Guam, Nimitz Hill / Naval Hospital, South Finegayan Housing, and NCTAMS WESTPAC. In determining water demand for domestic and fire protection needs for the water network modeling, the work tasks included the following: flow from water mains was measured using portable meters and submeters, pipeline condition was assessed by conducting hydrant flow tests and measuring changes in system pressure using pressure recorders, and water distribution losses were observed by night-time meter readings and the use of portable meters. Data were analyzed to develop recommendations to improve the water supply, treatment, and distribution systems to meet current and future requirements.

