



CNMI Water Kids: An Educational Resource for Teaching Children about Fresh Water and How to Protect It (*an adaption of Guam Water Kids*)



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In March of 2009, the Commonwealth Utilities Corporation (CUC) entered into a stipulated order (STO) for preliminary relief under an agreement with the Government of the United States. The order provided for a long list of compliance items that CUC must complete in order to satisfy the stipulated order. One major item that CUC must prepare is a Master Plan for their water supply and waste water systems. A part of the Master Plan is the “Development of a Geographic Information System (GIS) of the CUC drinking water and wastewater systems to facilitate better management of the CUC’s system”. As mentioned in the STO, the GIS shall locate, map, and develop GIS layers for all of the following: treatment facilities, wells, water lines, storage tanks, collection systems, pump stations, and CUC’s and DEQ’s water quality monitoring stations.

A healthy water system that can perform all of its essential functions requires a good record of system inventory, location, connectivity, and maintenance. This information should be easily available to the water managers and field operators. At the present time, the water and wastewater inventory and maintenance data are being entered manually and stored in file folders. This has created excess paperwork and makes it very difficult to track the frequency of maintenance, which makes it hard to provide timely information to the field operator groups, and creates a lack of close communication between system managers and

field operators. Additionally there is no link between the physical description of the water system that has been previously created by WERI and the maintenance and system inventory. What is needed as mentioned in the stipulated order is a GIS data base that contains all the system descriptions and system maintenance schedules and that can be made readily available to system managers and field operators. The proposed project will satisfy this need and will be divided into four discrete phases. The primary emphasis will be on the drinking water system. Later we will focus on the wastewater system and the data from water meters that are being installed.

The benefit of this project will be to provide and improved and more efficient management and operation of the Saipan water system by development of a GIS database. The specific objectives of this project will be to: a) install GIS software on a newly purchased computer and provide three days training on the use of GIS and data entry to one or two personnel from CUC; b) export the information from Saipan’s Haestad model into GIS layers, c) using GPS, locate components of the CUC water distribution system not included in the Haestad model; d) create data layers for each component of the water system; e) integrate the maintenance schedule and system inventory into GIS layers, and f) make the data base available to the system managers and system operators.