

US EPA ARCHIVE DOCUMENT



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
Pacific Islands Office
75 Hawthorne Street
San Francisco, CA 94105**

**Categorical Exclusion
For the Commonwealth Utilities Corporation
Drinking Water and Wastewater Systems Improvement Projects, Saipan, CNMI
Pursuant to 40 CFR § 6.204 (a) (1) (2)**

The Commonwealth of the Northern Mariana Islands (CNMI) was authorized to receive U.S. Environmental Protection Agency (EPA) grant assistance of \$19,722,936.00 in Drinking Water (DW) and Clean Water (CW) grants under the Safe Drinking Water Act State Revolving Fund (DWSRF) and Clean Water Act State Revolving Fund (CWSRF). EPA funding is as follows:

Fiscal Year 2010	DWSRF	\$6,652,000
Fiscal Year 2010	CWSRF	\$5,245,634
Fiscal Year 2011	DWSRF	\$4,250,937
Fiscal Year 2011	CWSRF	\$3,574,365
TOTAL		\$19,722,936

Pursuant to Section 1469a of the Omnibus Territories Act, 48 USC 1469a, these grant funds are consolidated and awarded as one grant to the Commonwealth Utilities Corporation (CUC). The grant funds are administered by CUC for the following water and wastewater projects:

Project Number/Name	Estimated Total Project Cost
WTR 11-001: Design and Construction San Vicente Water Service Area Extension, Fina Sisu and Herman's Bakery Waterline Replacement Project	\$900,000.00
WTR 11-002: Design and Construction of Navy Hill Pressure Improvement and Waterline Project	\$1,000,000.00
SWR 11-003: Improvement to Saipan Wastewater Collection, Transmission, and Conveyance System	\$1,700,000.00
WTR 11-005: Islandwide Gate Valve, Fire Hydrant, Pressure Reducing Valves, Replacement and Installation, Leak Detection and Repair, and Waterline Replacement and Installation	\$1,400,000.00

WTR 11-006: Design and Construction of CUC Chlorine Storage Building Project	\$200,000.00
WTR 11-009: Design and Construction of Capitol Hill Waterline Replacement Project	\$1,800,00.00
SWR 11-012: Rehabilitation of S3 Lift Station Project	\$750,000.00
SWR SWR 11-013: Agingan Wastewater Treatment Plant Rehabilitation Project	\$800,000.00
SWR 11-014: Saipan Islandwide Sewer Service Lines Project	\$675,000.00
SWR 11-015: Improvement to Saipan Wastewater Collection, Lift Stations, Force Mains, and Repair Shop Project	\$1,000,000.00
SWR 11-017: Saipan Islandwide Sewerline Replacement Project	\$751,900.00

CUC owns and operates the public drinking water and wastewater treatment systems in the CNMI. The CUC projects will address critical drinking water and wastewater infrastructure needs in the following manner:

- WTR 11-001: Design and Construction San Vicente Water Service Area Extension, Fina Sisu and Herman's Bakery Waterline Replacement Project: This project covers three geographical locations which include the villages of San Vicente, Dandan, and Objan. The Saipan Well Isolation Project, funded by the American Recovery and Reinvestment Act (ARRA), is being completed and water supply wells in Agingan area and Dandan area are now pumping water to the San Vicente storage tank. CUC now needs to extend its San Vicente tank water service area. The San Vicente service zone needs to be extended to include the Dandan Homestead and Obyan area. These are the areas south of San Vicente and are currently being served by the Dandan Tank. Due to the Dandan tank's current elevation, there are numerous homes in the Dandan tank's service area that are not receiving adequate water pressure once the water level in the tank is half-full. This will be resolved by extending the San Vicente water system to the Dandan area and having the San Vicente water tank serve the entire Dandan Village and Obyan area.

The general scope of work under this project shall consist of the following: (1) replacement of approximately 7500 linear feet (lf) of existing 8" asbestos-concrete pipe (ACP); (2) upgrade of approximately 800 lf of 6" diameter polyvinylchloride (PVC) pipe to 8" diameter PVC pipe; (3) replacement of approximately 2500 lf of 2" diameter galvanized iron (GI) pipeline behind Herman's Bakery; (4) replacement of defective (three each) gate valves; (5) connection of existing main lines to the new distribution main; (6) installation of new service laterals and water meters; (7) installation of blow-off-valves, fire hydrants, and air relief valves, and other control valves; (8) installation of service laterals and water meters; (9) reconnection of existing service laterals to new water mains; and (9) asphalt road restoration.

- WTR 11-002: Design and Construction of Navy Hill Pressure Improvement and Waterline Project: The 1.0 million gallon (MG) Calhoun Storage Tanks (two 0.50 MG each) serve the areas of Navy Hill, Lower Navy Hill, Chinatown, Upper Chinatown, and Upper Mariana Islands Housing Authority (MIHA) Housing. The floor elevation is at 541 feet with an overflow elevation of 561 feet. Most of the service areas are located at a much lower elevation. There are currently pressure reducing valves (PRVs) installed along the mainline but they are not functioning properly and/or located at the right elevation. For this reason, the lower service areas are experiencing high water pressure which leads to damage of pipes and excessive leakage. This project will replace existing PRVs and install additional PRVs to provide proper elevation and pressure settings to avoid damage to the water lines.

The general scope of work under this project shall consist of the following: (1) replacement of 3 each existing PRVs along Navy Hill Road; (2) installation of 1 each new PRV along Isla Road and Fabot Way; (3) installation of a new 2500 lf of 4" distribution line on Gloria Drive and Isla Drive with all the necessary fittings, valves, and other appurtenances; (4) installation of new 800 lf of 2" distribution line along Diboto Drive going down Pueto Drive; (5) replacement of existing 3500 lf of 3" GI pipe waterline with new 4" PVC waterline; (6) installation of blow-off-valves, fire hydrants, and air relief valves; (7) cut and cap all old galvanized iron pipes; (8) installation of about 30 each service laterals and water meters; (9) reconnection of existing service laterals to new water mains; (10) rehabilitation of 1 each existing booster pump with housing and pump control system; and (11) asphalt concrete road restoration.

- SWR 11-003: Improvement to Saipan Wastewater Collection, Transmission, and Conveyance System: This project includes major and minor work to sewer lift stations S-8 and sewer lift station S-2, extensions to force main, and the rehabilitation of the sewer system. Sewer lift stations S-8 and S-2 are located adjacent to each other and are in need of upgrade and improvement.

The project scope consists of the following: (1) replacement and construction of new valve boxes outside of the wetwell pit; (2) upgrade of the wetwell pit with the replacement of pipes, pumps, level sensors, guide rails, gate valves, check valves, rehabilitation of the electrical control panel, replacement of generator units and their automatic transfer switches; (3) rewiring of the electrical control system where it is deficient; (4) provide new base elbows properly anchored to the concrete; (5) replacement of gate valves and check valves that have corroded and do not move or seal adequately; (6) replacement of inadequate wetwell covers; (7) replacement of existing rails that have inadequate strength to properly set the pump onto the base when lowering it into the wetwell; (8) rehabilitation of 264,000 linear feet of sewer lines; and (9) rehabilitation of multiple backup generators.

- WTR 11-005: Islandwide Gate Valve, Fire Hydrant, Pressure Reducing Valves, Replacement and Installation, Leak Detection and Repair, and Waterline Replacement and Installation Project: The Saipan water system includes approximately 5000 water valves and fire hydrants and flush valves. It is estimated that over 50% of the valves and hydrants have failed and require replacement.

Many pipelines have been abandoned. However, the fire hydrants and control valves were not removed as was the case with San Vicente, San Roque, and San Jose. The failed valves result in larger service areas without 24 hour water because of water by-passing and leakage from one pressure zone into another. The abandoned fire hydrants are considered a potential safety hazard as a result of time wasted by fire fighting emergency personnel during a fire situation where they may try to connect to an inoperable fire hydrant.

The water system also includes over 30 control type valves including PRVs, pressure sustaining valves (PSVs), altitude valves, motor control valves, and other control type valves. Most of these control type valves are PRV's which no longer function properly. Parts for many of these valves are obsolete and replacement of the entire valve assembly is required. Additionally, various control valve assemblies are recommended in areas where they do not presently exist (e.g. along Isa Drive, Santa Lourdes Road, Egiggi, E-Denni, and Wireless Road). The present condition of both non-functioning and absent PRV valves result in over pressurization or under pressurization.

The general scope of this project consists of the following: (1) replacement of broken valves of varying sizes, hydrants, and pipes throughout the island; (2) replacement of PRVs with standard design and model; (3) procurement and installation of approximately 200 individual PRVs; (4) replacement of other various defective control type valves on the system; (5) cutting and capping any unwanted pipe interconnections throughout the water distribution system; (5) locate and repair subsurface leaks and identify connections to old system; (6) provide new service lines where needed; (8) road restorations in locations where repairs are made under the existing roadway.

- WTR 11-006: Design and Construction of CUC Chlorine Storage Building Project: The CUC proposes to use an existing World War II bunker near the Lower Base Power Plant for the purpose of storing chlorine cylinders. Minor modification works on the building such as: (1) installation of chlorine detection equipment; (2) construction of a new door; (3) construction of a new ramp over the steps for loading and unloading purposes will be designed to meet CUC needs.
- WTR 11-009: Design and Construction of Capitol Hill Waterline Replacement Project: The constantly leaking Capitol Hill water system is constructed of steel pipes that are more than 40 years old. This system needs to be replaced to eliminate leaks and possible contamination. Serving the 1200 and 1300 blocks, these steel pipes are also prone to breakage, resulting in CUC performing costly repairs and loss of precious water. By

replacing these lines and eliminating the source of leaks, the Capitol Hill tank can then provide longer water service hours to those areas without adequate water supply such as the areas of Mt. Tapochao, Wireless, Talafofo, and Egigi Road. With the pipe replacement and elimination of water leaks, the service zone can then be extended south to Papago area and provide back-up water to the Super Blue tank.

The general scope consists of the following: (1) replacement of approximately 4.25 miles of 8, 6, and 4 inch diameter PVC water distribution line; (2) installation of service laterals and water meters; (3) construction and installation of 3 each pressure reducing valves complete with vaults and other appurtenances and lateral distribution PRVs; (4) installation of appurtenant valves, fittings, 4 each blow-off-valves, 6 each air vacuum/relief valves, and 10 each fire hydrants; (5) cut and cap old existing lines; (6) connection to existing waterlines; (7) installation of 1 set-booster pump with control system and building enclosure; (8) pressure/leakage testing and disinfection; and (9) asphalt pavement restoration.

- WTR 11-012: Rehabilitation of S-3 Lift Station Project: Sewer Lift Station S-3 is located at lower base. It is the terminal lift station for the Sadog Tasi Wastewater Plant and is in need of upgrades and improvements. The lift station pipes and guide rails are highly susceptible to corrosion. This corrosion creates leaks, damages the pump and ultimately overflows sewage. The emergency power and electrical controls are in a state of deterioration leaving the sewer system with no backup power to run during power outages, typhoons, or any other emergency situation.

This project will consist of the following: (1) purchase of Flygt model 3231 pumps; (2) upgrade of the wetwell pits with the replacement of pipes, pumps, level sensors, guide rails, sluice gates, gate valves, and check valves; (3) rehabilitation of the electrical control panels, (4) repair of generator unit and its automatic transfer switches; (5) provide new properly anchored base elbows; and (6) replacement of wetwell covers.

- SWR 11-013: Agingan Wastewater Treatment Plant Rehabilitation Project: This project involves the rehabilitation of the Agingan Wastewater Treatment Plant (WWTP). The plant was constructed in 1993 with a capacity of 3.0 million gallons per day (MGD). The plant operates through an activated sludge and biological process of treating wastewater. The treatment plant serves a population of about 20,000 in the southern portion of the island.

This project will provide structural assessment and construction to rehabilitate the structural condition of the existing plant. Construction and repair works are necessary to improve the wastewater service and existing facilities at Agingan Plant. Work items to be included are (1) installation of additional catwalks and stair case; (2) construction of an office building with laboratory room, (3) demolition of the old clarifier tank, (4) perimeter fencing and (5) improvements to the belt filter press.

- **SWR 11-014: Saipan Islandwide Sewer Service Lines Project:** This project involves connecting existing residences and businesses to the CUC sewer system to enhance groundwater protection in order to help assist in meeting federal safe drinking water standards. The project scope includes connecting up to 75 customers to existing sewer lines. Installation locations may be at any location within the island of Saipan where sewer service currently exists. Sewer connections will involve minor construction work within customer lots and existing roadway easements, including installation of 4-inch and 6-inch sewer pipe, connection saddles, and demolition of existing septic tanks.
- **SWR 11-015: Improvement to Saipan Wastewater Collection, Lift Stations, Force Mains, and Repair Shop Project:** The current CUC lift stations are in need of upgrades and improvements. The pipes, guide rails are highly susceptible to corrosion, which creates leaks, damage to the pumps and ultimately overflows sewage. The emergency power and electrical controls are in state of deterioration, which leaves the sewer system with no back-up power to run during power outages, typhoons, or any other emergency situations.

This project includes the following: (1) replacement/installation of new valve boxes outside the wet well pit; (2) upgrade of the wet well pit with the replacement of pipe spools into stainless steel, pumps, level sensors, guide rails; (3) rehabilitation of the electrical control panel; (4) rehabilitation of the generator unit and its automatic transfer switch; (5) construction of building enclosure to house the pump control panel; (6) upgrade or modification of sewer transmission and collection lines and (7) rehabilitation and cleaning of approximately 90,000 lineal foot of collection lines located in Garapan, Puerto Rico, and Oleai Villages.

- **SWR 11-017: Saipan Islandwide Sewerline Replacement Project:** The transmission and collection lines particularly in the villages of Garapan, San Jose, Susupe, Chalan Kanoa, San Antonio, As Terlaje Hill, and along the property of the Northern Marianas College are on asbestos pipeline built in the early 1970s. The asbestos pipe has thinned and collapsed through the years.
This project would: (1) replace existing sewer asbestos concrete pipe or vitrified clay pipe with a PVC pipe; (2) upgrade sewer manholes; (3) possibly reroute sewer flows; and (4) restore damaged asphalt road.

Eligibility for Categorical Exclusion

In accordance with the EPA's regulations for implementing the National Environmental Policy Act (NEPA), 42 USC §§4321-4370f, EPA Region 9 has determined these projects to be eligible for categorical exclusions under 40 CFR §6.204(a)(1)(ii) which allows projects to be categorically excluded when the projects involve:

“Actions relating to existing infrastructure systems (such as sewer systems; drinking water supply systems; and stormwater systems, including combined sewer overflow systems) that involve minor upgrading, or minor expansion of system capacity or rehabilitation (including functional replacement) of the existing system and system components (such as the sewer collection network and treatment system; the system to collect, treat, store and distribute drinking water; and stormwater systems, including

combined sewer overflow systems) or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities.”

The projects do not involve new or relocated discharges to surface or ground water; will not result in the substantial increase in the volume or the loading of pollutant to the receiving water; will not provide capacity to serve a population of 30% greater than the existing population; and will not directly or indirectly involve or relate to upgrading or extending infrastructure systems primarily for the purpose of future development. In addition, EPA reviewed the proposed actions and has determined that no extraordinary circumstances are involved in accordance with 40 CFR § 6.204 (b) (1)-(10):

- 1) The proposed actions are not known or expected to have potentially significant environmental impacts on the quality of the human environment either individually or cumulatively over time.
- 2) The proposed actions are not known or expected to have disproportionately high and adverse human health or environmental effects on any community, including minority communities, low-income communities, or federally recognized Indian tribal communities.
- 3) The proposed actions are not known or expected to significantly affect federally listed threatened or endangered species or their critical habitat. The CNMI Division of Fish and Wildlife (DFW) stated in a letter dated May 30, 2011 that the projects would have no effect on locally or federally listed species. In an email dated November 1, 2011 from the U.S. Fish and Wildlife Service (USFWS) to CUC, the USFWS acknowledged that surveys were completed in the area of the proposed projects by DFW and no federally listed species were detected. Since there would be no impacts to listed species, the USFWS stated it had no further comments.
- 4) The proposed actions are not known or expected to significantly affect national natural landmarks or any property with nationally significant historic, architectural, prehistoric, archaeological, or cultural value, including but not limited to, property listed on or eligible for the National Register of Historic Places. The CNMI Department of Community and Cultural Affairs, Division of Historic Preservation (CNMI HPO) has reviewed the proposed projects and concurred with this determination. CNMI HPO, in a letter dated March 11, 2011, determined that the projects will have no adverse effect on historic properties. The HPO stated that a variety of historic and prehistoric sites are known to exist in the project areas, which, together cover most of southern Saipan. Because most of the projects involve excavation, there is some potential to cause effects on archaeological sites, but they have no potential to cause effects on other types of historical properties (buildings, structure, object, districts). Most of the proposed projects involve replacement or repairs within previously disturbed soils; therefore, their potential to cause effects on significant archaeological sites is minimal. Regarding those activities that might cause adverse effects on archaeological sites, HPO will identify them during its review of the material submitted to the Department of Environmental Quality when

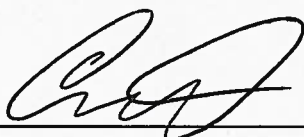
CUC submits its earthmoving permit applications. At that time, HPO will further examine each project, conduct site visits, and may require some form of subsurface testing or (more likely) monitoring of excavation that take place in undisturbed soils. In addition, with respect to project number WTR 11-006 described above, CNMI HPO indicated in a letter dated April 8, 2011, that it supported the adaptive reuse of historic buildings and that the minor modifications involved were not expected to have adverse effects on the historic building. CNMI HPO will review modification plans when available to ensure that the proposed modifications meet the U.S. Department of Interior's standards.

- 5) The proposed actions are not known or expected to significantly affect environmentally important natural resource areas such as wetlands, floodplains, significant agricultural lands, aquifer recharge zones, barrier islands, wild and scenic rivers, and significant fish or wildlife habitat.
- 6) The proposed actions are not known or expected to cause significant adverse air quality effects.
- 7) The proposed actions are not known or expected to have a significant effect on the pattern and type of land use (industrial, commercial, recreational, residential) or growth and distribution of population including altering the character of existing residential areas, and are consistent with state or local government, federally-recognized Indian Tribe approved land use plans and federal land management plans.
- 8) The proposed actions are not know or expected to cause significant public controversy about a potential environmental impact of the proposed actions.
- 9) The proposed actions are not known or expected to be associated with providing financial assistance to a federal agency through an interagency agreement for a project that is known or expected to have potentially significant environmental impacts.
- 10) The proposed actions are not known or expected to conflict with federal, state or local government, or federally-recognized Indian Tribe environmental, resource-protection, or land-use laws or regulations.

Conclusion

The proposed actions conform to the category of actions eligible for exclusion under 40 CFR §6.204 (a) (1) (ii) and will not involve any extraordinary circumstances pursuant to 40 CFR §6.204 (b) (1)-(10). Accordingly, EPA approves this request for a categorical exclusion from detailed environmental review pursuant to EPA procedures for implementing the National Environmental Policy Act. EPA may revoke this categorical exclusion if changes in the proposed actions render them ineligible for exclusion, new evidence emerges which indicates that serious local or environmental issues exist, or federal or local laws would be violated.

This categorical exclusion is final upon signature. EPA Region 9 will not circulate this categorical exclusion for review, but will make it available to any individual upon request.



Enrique Manzanilla, Director
Communities and Ecosystems Division

1/5/2012

Date