

FY 2016 - 2017 ASPA CLEAN WATER ACT INFRASTRUCTURE CAPITAL IMPROVEMENT PROJECT RANKING

Project Name	CWA-NPDES Permit No.	Justification	Description	Est. Cost (M\$)	Criteria Points						Total Pts.	Rank
					1			2				
					A	B	C	A	B	C		
Influent Screening at Treatment Plants	AS 0020001	To ensure that the Disinfection AO is fulfilled and the UV disinfection system functions efficiently, it is necessary to increase the removal of total suspended solids prior to the UV reactor.	The installation of a fine automatic screening system will result in a higher removal of solids at the head works of the treatment plants. Increased removal will prevent floatables and other large debris from entering the clarifiers and disrupting settling and system operations.	\$1.00	50			25			75	1
					10	20	20	15	0	10		
East Side Village Package 5 Phase II	AS 0020001	In order to complete the ongoing ESV project additional funding is required.	Complete the construction of a sewer extension from the canneries to Aua. The construction of the gravity mains and home connections has been divided into two Phases due to funding availability. Phase II will connect approximately 260 homes to the sewer system eliminating the cesspools and septic tanks in these locations.	\$7.50	60			0			60	2
					20	20	20	0	0	0		
Replace Clarigester Drive Shaft	AS 0020001	The Clarigester #1 drive shaft at the Tafuna plant is badly corroded and has failed. It is currently back in operation under a temporary repair and needs to be replaced. The Clarigester cannot function without the drive shaft and wastewater treatment will fail compliance.	Remove existing drive shaft and replace it with a new one. Installation works will be completed in house.	\$0.30	40			10			50	3
					10	20	10	0	5	5		
Vaitele Lift Station Upgrade	AS 0020010	The Vaitele lift station does not maintain appropriate water levels in the wet well due to problems with the existing force main.	The Vaitele force main and the force main connected to it must be replaced and directed to a new discharge location. Additionally, the pumps at the lift station should be replaced with properly sized pumps and VFDs to improve pumping efficiency.	\$1.50	35			7			42	4
					10	15	10	0	0	7		
Aunu'u WWTP and Disposal Improvements	N/A	Sewage is pumped from an outfall into the near-shore reef area of Aunu'u. A health risk exists to swimmers while WW discharges cause reef damaging nutrient pollution and contaminate reef fish which are caught by local residents.	A low-tech on-site treatment system can be installed to meet secondary discharge requirements. A USEPA-NPDES permit could possibly be obtained that would be based on an extension of the existing ocean outfall piping. Injection wells to pump the secondary effluent deep into the subsurface could also provide a preferred discharge alternative.	\$2.50	30			10			40	5
					0	20	10	0	10	0		
Expand and Improve Wastewater Collection System	N/A	The existing community gravity collection systems initially served a smaller population, population expansion has gone beyond the capacity of the system in some areas. As more homes are built in these densely populated areas, sewer main extensions and sewer main replacements are needed to prevent overflows. High priority areas include Upper Pago Pago Bay and Vaitogi.	Utilize ASPA ESD-WW engineers to design sewer main extensions, re-sizing and improvements in the service areas of each of the two wastewater treatment plants. This will make it more timely and cost effective for ASPA's Wastewater construction crews compared to lengthy and more expensive contracting process. Wherever possible, extending sewer mains is preferable to septic systems given the housing density in these areas and often marginal soil conditions.	\$5.00	25			10			35	6
					0	15	10	0	0	10		
Leone Collection System Feasibility Study/Master Plan	N/A	A large residential area with some light business would benefit from a centralized WW collection system to protect lagoon water quality and groundwater aquifer areas where ASPA wells are located. Population densities in the Leone area increase yearly and septic pits or sludge pits are common throughout the area.	Retain a WW consulting firm to produce a master plan for WW issues in the Leone region, including Malealoa Village where numerous ASPA wells are sited. Collection, treatment, and disposal options should be evaluated with recommendations made. A 10% design of the proposed system should be a contract deliverable. Final design and construction phasing would follow in sequence. Project options include a new wastewater treatment plant and collecting WW from the Leone Village area and piping it to the existing Fogagogo sewage treatment plant.	\$0.75	30			0			30	7
					0	15	15	0	0	0		
Vaitogi Collection System Design and Construct	AS 0020010	A large residential area with some light business needs a piped WW collection system to protect groundwater aquifer areas where ASPA wells are located. Population densities in the Vaitogi area increase yearly and septic pits or sludge pits are common throughout the area.	Retain a WW consulting firm to produce an engineered design for WW issues in the Vaitogi Village and then bid for construction. Project plan would be to collect WW from the Vaitogi Village area and pipe it to the existing Fogagogo sewage treatment plant. This project will ultimately serve more than 100 homes (2-8 persons each).	\$2.00	30			0			30	8
					0	15	15	0	0	0		
Tutuila-wide On-Site Systems: New and Upgrade Project	N/A	Tutuila island is blanketed with poorly designed and failing wastewater leachpits which are often located adjacent to streams and the ocean. These systems pollute groundwater and surface water.	Remove old residential leach pits and provide individual residences with engineered septic tanks and drainfields. Where available land constraints preclude the single family facilities, provide groups of residences with individual septic tanks which feed effluent to "community" drainfields. This project will focus on providing decentralized wastewater treatment solutions to existing deficient and failing on-site systems and will also incorporate "green" technology as appropriate to all aspects of the project. Design emphasis will be placed on transporting wastewater by gravity, in lieu of electrical pumps. Public health will be greatly enhanced by removing waste effluents and skimmable matter from nearshore areas.	\$3.50	25			0			25	9
					0	15	10	0	0	0		
Upper-Pago Pago Bay Area Collection System Extension Design	AS-0020001	Homes in upper Pago Pago bay area are not served with a piped WW collection system.	Retain a WW consulting firm to produce a feasibility study to evaluate capacity of the lower valley collection system. Pending the results of that effort, an engineering plan for collecting wastewater from upper-Pago Pago should be produced. The plan would direct collected waste to the Malaloa LS and the Utulei WWTP. After completion of final design drawings, construction phasing would follow in sequence.	\$2.90	22			0			22	10
					0	17	5	0	0	0		
TOTAL Project Need =				\$26.95	M							