Easton Utilities, Maryland Windmill Sewage Pumping Station Replacement & Windmill Forcemain Upgrade

Status: Submitted to recipient

Scope of work

The project Scope of Work (SOW) identifies the eligible activity, describes what will be accomplished and explains how the mitigation activity will be implemented. The mitigation activity must be described in sufficient detail to verify the cost estimate. All activities for which funding is requested must be identified in the SOW prior to the close of the application period. FEMA has different requirements for project, planning and management cost SOWs.

Subapplication title (include type of activity and location)	**Easton Utilities, Maryland Windmill Sewage Pumping Station Replacement & Windmill Forcemain Upgrade**

Activities

Primary activity type	**Floodproofing**
Primary sub-activity type	**Wet floodproofing**
Secondary activity type (Optional)	**Relocation**
Tertiary activity type (Optional)	**Utility and infrastructure protection**
Tertiary sub-activity type	**Wastewater and/or sanitary sewer system**
Geographic areas description	**The Town of Easton has an approximate population of 16,000 residents. Easton is located in Talbot County, MD. The Windmill Pump Station is 1 of 6 major pump stations. 2 minor pump stations pump sanitary wastewater to the Windmill Pump Station. The pumps discharge into a cast iron force main, which connects to a parallel force main system. Force mains from a number of other pumping stations also tie into the parallel force main system before being conveyed to the wastewater treatment plant. The existing Windmill Pump Station is located in the flood way and flood plain of the Windmill Branch. The Windmill Branch is located within the Lower Choptank Watershed of Easton, Talbot County, Maryland. During a flooding**

	event the pump station gets overwhelmed with floodwaters and can not pump the water and wastewater to the treatment facility. When the pump station is inundated with floodwater untreated sanitary sewage discharges to the open surface water of the Windmill Branch creating public health risk of contaminated surface waters. Additionally, when the pump station is flooded, the gravity main flowing to the pump station surcharges full and raw sewage can back flow through the gravity main up through lateral services and into residents homes.

Community lifelines

Primary community lifeline	**Safety and security**
Primary sub-community lifeline	**Community safety**
Secondary community lifeline (optional)	**Health and medical**
Secondary sub-community lifeline	**Public health**
Tertiary community lifeline (optional)	**Hazardous material**
Tertiary sub-community lifeline	**HAZMAT, pollutants, contaminants**

Hazard sources

Primary hazard source	**Flooding**
Secondary hazard source (optional)	**Infrastructure failure**
Tertiary hazard source (optional)	**Severe storm**

Is this a phased project?	**No**
Are you doing construction in this project?	**Yes**
Population affected	**100**
Detail/description of stated percentage	**This mitigation project is necessary to address the public health risk of untreated sanitary sewage discharge into surrounding surface water and sanitary sewage backflows into resident and**

	commercial properties. The public health risk applies to 100% of the population.
Provide a clear and detailed description of your proposed activity	**A new pump station will be constructed upland from the existing pump station to property owned by the Town of Easton. The Windmill forcemain will be upgraded to connect the new pump station to the existing forcemain system. The existing pump station will be demolished two (2) feet below grade, and the area filled and graded to restore the floodway of the Windmill Branch.**
How will the mitigation activity be implemented?	**The project will be bid in two separate contracts. Bid 1 will be the relocation and demolition of the existing pump station with new gravity and forcemain to connect the existing system to the new pump station. Bid 2 will upgrade the existing Windmill forcemain. The projects will be bid simultaneously. Bid awards will be based on the lowest responsible bidder. After contract execution the project will go to construction. The pump station relocation and forcemain upgrades will mitigate all risk associated with the flooding hazards.**
Describe how the project is technically feasible and will be effective in reducing the risk by reducing or eliminating damage to property and/or loss of life in the project area. Please include engineering design parameters and references to the following: preliminary schematic or engineering drawings/design; applicable building codes; engineering practices and/or best practices; level of protection (e.g., life safety, 100-yr flood protection with freeboard, 100-yr wind design, etc.):	**The project is technically feasible as described in the Preliminary Engineering Report and certified by the P.E. signed and sealed project drawings and specifications. This project is effective in reducing the risk to public health and property by relocating the pump station out of the flood way and flood plain. The new pump station is located out of the 100-yr flood plain. Attached are the project design documents for the construction of the new pump station, the demolition of the existing pump station, and the forcemain upgrades.**
Who will manage and complete the mitigation activity?	**Easton Utilities Commission**
Will the project address the hazards identified and what risks will remain from all hazards after project implementation (residual risk)?	**The project will address all hazards identified by relocating the pump station out of the flood way and flood plain. No residual risks from pump station flooding remain after project completion.**
When will the mitigation activity take place?	**The planning and design process is complete. The construction of the project is scheduled to start in June 2021.**
Explain why this project is the best alternative. What alternatives were considered to address the risk and why was the proposed activity considered the best alternative?	**This project is the best alternative because it eliminates the risk of flood hazards and public safety by relocating the pump station out of the flood way and flood plain. The alternatives considered included: 1. Raising the elevation of the pump station at its current location. This would**

	not eliminate all risks of flood hazards because the pump station would still be within the flood way and flood plain. 2. A no action alternative would not reduce or eliminate any risk of flood hazards.
Please identify the entity that will perform any long-term maintenance and provide a maintenance, schedule and cost information. The subapplicant or owner of the area to be mitigated is responsible for maintenance (including costs of long-term care) after the project is completed?	**Easton Utilities Commission will operate and maintain the pump station and forcemain. The pump stations are continuously monitored through the SCADA system with high level alarms. All pump stations are routinely maintained on a daily basis.**
Additional comments (optional)	**Attached: Engineering Design Plans Engineering Specifications FEMA FIRMette of existing Windmill Pump Station Location Windmill Pump Station Relocation Site Map Windmill Pump Station Project Purpose & Summary with GHD Preliminary Engineering Report**

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
FIRMETTE_65f4799e-a415-11e9-806f-001b21bc1ecd.pdf	11/10/2020	pmoffett@eucmail.com	Scope of Work Attachments	FIRMette of existing Windmill Pump Station location.	
WindmillPS Site Map.pdf	11/10/2020	pmoffett@eucmail.com	Scope of Work Attachments	Site map showing existing location and proposed location of the Windmill Pump Station.	
Easton Utilities Windmills PS - BID SET 063020.pdf	11/10/2020	pmoffett@eucmail.com	Scope of Work Attachments	GHD Design Plans for the Windmill Pump Station Relocation.	

Filename	Date uploaded	Uploaded by	Label	Description	Action
Easton Windmill PS Bid ready MDE June 2020.pdf	11/10/2020	pmoffett@eucmail.com	Scope of Work Attachments	Design Specifications for the Windmill Pump Station Relocation.	
EU windmillupgrade8-2020-1.pdf	11/10/2020	pmoffett@eucmail.com	Scope of Work Attachments	Easton Utilities Design Plans for Windmill Forcemain Upgrades	
Windmill Pump Station Project Purpose and Summary.pdf	11/12/2020	pmoffett@eucmail.com	Scope of Work Attachments	Windmill Pump Station Project Purpose & Summary with GHD Preliminary Engineering Report which describes alternatives considered for this project.	

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