



The City of Gulf Breeze Seeks Public Input for Rebuild Florida Hurricane Sally Infrastructure Repair Program Grant Applications

PLEASE PROVIDE PUBLIC COMMENTS TO BY APRIL 1ST:
DevelopmentServices@gulfbreezefl.gov

**DETAILS FOR THE THREE PROJECTS LISTED BELOW
ARE INCLUDED FOR REVIEW:**

WEST WATER PLANT REPLACEMENT

GANGES TRAIL & MADURA ROAD SEWER LIFT STATION

GRASSY POINT SEWER LIFT STATION



**GULF
BREEZE
REGIONAL
WATER
SYSTEM**



**GULF
BREEZE
PUBLIC
WORKS**



WEST WATER PLANT REPLACEMENT

PROJECT DESCRIPTION

The West Water Plant was originally built in the 1970s and consists of a precast concrete tank and pump station. The 1-MG ground storage tank is in need of both interior and exterior repairs. The pump station is a concrete block building that houses four 50-hp split-case centrifugal pumps and electrical equipment. Pump discharge piping was observed to be severely corroded in several locations. The building is weathered, and cracks were observed in several locations on the exterior. The building has a chlorine room that holds 150-lb cylinders for occasions when additional disinfection is warranted. In the event of a loss of electrical power, one pump has a natural gas-fired engine, and there is a 150 kW natural gas-fired emergency generator to provide backup power. Old, abandoned equipment and piping are located throughout the site.

The intent of this grant project will be to replace the plant building and remove old facilities that are no longer required for operation. The concrete ground storage tank will remain and be rehabilitated in a separate project.

WEST WATER PLANT REPLACEMENT

CHALLENGES

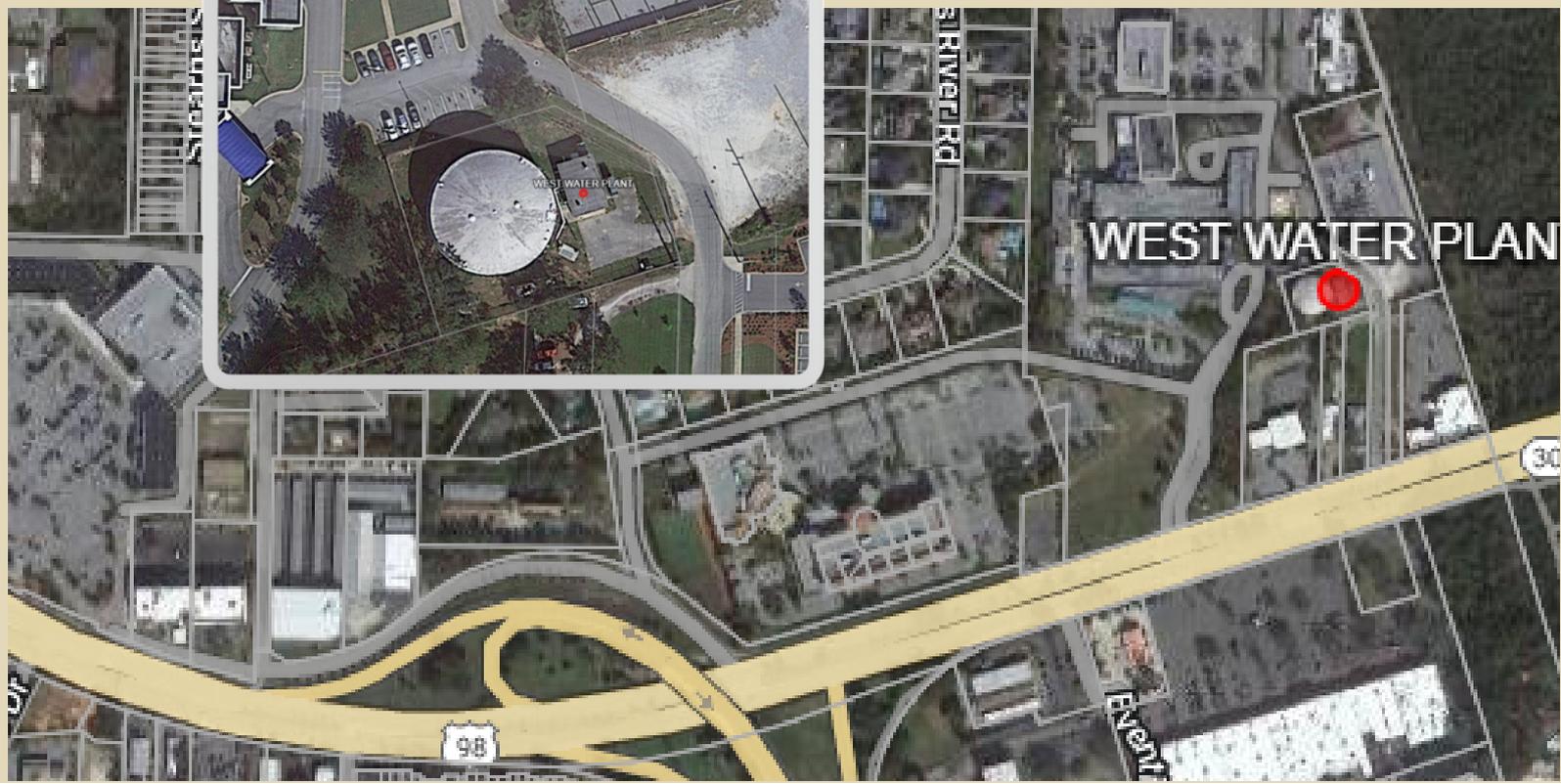
The age of the facility and the less stringent design requirements of the 1970s create a facility vulnerable to severe hurricane damage. The facility did experience wall damage during Hurricane Ivan in 2004. The design of the internal piping makes replacement of the piping nearly impossible without removing the plant completely from service.

COSTS

The project is expected to cost \$1,500,000 to install a replacement prefabricated water pumping facility and demolition of the existing facility. This excludes design and construction administration services being provided separately.



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GANGES TRAIL & MADURA ROAD SEWER LIFT STATION

PROJECT DESCRIPTION

The Tiger Point developments were constructed during the late 1970s and early 1980s. The lift stations along the coast were not designed for the intense conditions experienced in the area. The project will seek to replace materials that are not rated for the harsh coastal conditions. This includes piping rated for harsh saltwater conditions and coatings for concrete to provide protection from the same. Additional flood and surge construction will be installed as well. Wood support structures will be removed and replaced with aluminum rated for the conditions.

All electrical components will also be replaced with NEMA-rated systems for water and explosion-proofing.

Items included for grant funding:

- Replace the control rack with aluminum per standard
- Replace the control panel, the power disconnect, and the meter can
- Relocate the control rack 90 degrees to be safely accessible
- Raise controls, the meter can, and disconnect to code and out of storm tide levels
- Replace conduit with metallic equivalent
- Raise the wet well and valve box 1'-2'
- Install safety grating in wet well per OSHA standards

GANGES TRAIL & MADURA ROAD SEWER LIFT STATION

CHALLENGES

These older lift stations were not designed for the intense flooding experienced in recent decades. FEMA has recently updated flood plain maps that provide levels well above the vulnerable facilities. The projects require innovative designs to protect the electrical systems from water damage, provide resilient facilities that can be returned to service quickly after a storm or flood event, and reduce cross-contamination between sewage and flood water.

COSTS

The project is expected to cost \$500,000 for the replacement and hardening of the sewage lift station.



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GRASSY POINT SEWER LIFT STATION

PROJECT DESCRIPTION

The Grassy Point development was constructed in the early 1980s. The lift stations along the coast were not designed for the intense conditions experienced in the area. The project will seek to replace materials that are not rated for the harsh coastal conditions. This includes piping rated for harsh saltwater conditions and coatings for concrete to provide protection from the same. Additional flood and surge construction will be installed as well. Wood support structures will be removed and replaced with aluminum rated for the conditions. All electrical components will be replaced with NEMA-rated systems for water and explosion-proofing.

Items included for grant funding:

- Replace the control rack with aluminum per standard
- Replace the control panel to include an emergency generator receptacle
- Raise the control rack to accommodate typical storm surge
- Replace conduit with metallic equivalent
- Raise the wet well and valve box to accommodate typical storm surge
- Install safety grating in wet well per OSHA standards
- Replace pumps with non-explosion pumps

CHALLENGES

These older lift stations were not designed for the intense flooding experienced in recent decades. FEMA has recently updated flood plain maps that provide levels well above the vulnerable facilities. The projects require innovative designs to protect the electrical systems from water damage, provide resilient facilities that can be returned to service quickly after a storm or flood event, and reduce cross-contamination between sewage and flood water.

COSTS

The project is expected to cost \$500,000 for the replacement and hardening of the sewage lift station.



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