



Posting Language

Recommend approval of a resolution authorizing the City Manager to apply for funding from the Texas Water Development Board (TWDB) for a low-interest loan in the amount not to exceed \$65,000,000 as part of the TWDB's Flood Infrastructure Fund (FIF) program, for Austin Water's Walnut Creek Wastewater Treatment Plant Flood Wall project. Funding is contingent upon available funding in future budgets.

Lead Department

Austin Water.

Council Committee, Boards and Commission Action:

April 16, 2025 – To be reviewed by the Water and Wastewater Commission.

Additional Backup Information:

This action will authorize Austin Water to apply for a low-interest loan from the Texas Water Development Board (TWDB), not to exceed \$65,000,000 for Austin Water's Walnut Creek Wastewater Treatment Plant Flood Wall project.

The proposed floodwall would be to prevent encroachment of flood waters at Walnut Creek Wastewater Treatment Plant (WWTP). The flood wall would consist of approximately 5,650 linear feet of sheet pile and 1,600 linear feet of concrete wall, totaling 7,250 linear feet, ranging in height from three feet to ten feet in height. The floodwall also includes seven flood gates to allow pedestrian and vehicular ingress and egress into the plant site. The floodwall will encompass the Walnut Creek WWTP, approximately 63 acres, including the existing 75 million gallon per day (MGD) plant, existing administration and maintenance buildings, existing reclaimed facilities, the proposed 25 MGD plant and proposed wet weather facility.

The Walnut Creek WWTP is one of the two major wastewater treatment plants in the City of Austin. The plant is in East Austin, was built in various stages dating back to 1977 and has undergone several expansions. The plant is currently permitted for 75 million gallons per day (MGD) (average daily flow) and a plant expansion is currently underway to increase the capacity to 100 MGD with plans to increase the capacity to 150 MGD as the ultimate plant capacity.

The Walnut Creek WWTP service area includes three sewersheds defined as follows: Walnut and Little Walnut; Crosstown tunnel; and Johnny Morris. These three sewersheds effectively cover the COA from immediately north of the Colorado River to the northern limits of the COA and easterly to the plant location. The treatment of wastewater flow from these sewersheds is totally dependent upon the operation of the Walnut Creek WWTP.

The plant is located between Walnut Creek and Walnut Creek Tributary 1, the walnut Creek flows along the west side of the plant and the Walnut Creek Tributary 1 flows along the opposite side (east side) of the plant. To date, there has been no history of flooding within the plant from the flood water from either Walnut Creek or form Tributary 1. However, the intensity of the rainfall events has resulted in the adoption of Atlas 14 criteria to evaluate future rainfall events. The Atlas 14 criteria results in definition of a 100-year flood event. Modeling of this event results in definition of the stormwater elevations within the drainage area. During the preliminary modeling phase, it was determined that the Walnut Creek WWTP will be inundated by floodwaters with an Atlas 14 100-year storm event. To prevent flooding within the plant facility the use of piling to form a flood wall that surrounds the facility was proposed.



Item 10
Water & Wastewater Commission: April 16, 2025
Council: May 8, 2025

An alternative to the construction of the flood wall is do nothing and incur the damage if, and when the 100-year flood event may occur. The flow over the FM 969 Bridge (Walnut Creek Mainstem) associated with the Atlas 14 100-year storm occurs at a significant depth, velocity, and duration near the plant entrance. The plant would not be accessible by road for approximately 7 hours and would result in the plant not being operational for an extended period of time which would be dependent on the severity of the flood.

The numbers of customers affected by a potential outage is approximately 585,915 , total approximate household connections is 127,147 .