

ACTION ITEM**WW-6: CAPACITY CERTIFICATION PROGRAM**

Intent	Responsible Party	In Coordination With
To ensure adequate capacity to accept new flows to minimize SSOs	Local Wastewater Provider Local Government	Site Plan Review Planning and Zoning
<b>Points of Integration</b> A capacity certification program reduces the likelihood of sewer overflows and thereby promotes and sustains watershed health and potential source water protection.		

**Action Item:** For wastewater providers who do not have an approved CMOM with Georgia EPD, maintain a program and process for certifying wastewater collection system capacity for new development and redevelopment projects.

**Sub-Tasks:** Each local wastewater provider shall:

1. Maintain a flow and rainfall monitoring program to support the hydraulic modeling and capacity certification program.
2. Maintain a hydraulic model to determine available capacity.
3. Determine system capacity.
4. Maintain procedures for certifying available capacity.
5. Certify availability of capacity for proposed developments.

Each local government shall:

6. Develop and implement procedures to coordinate with the local wastewater provider at the determined level of the planning/development review process.

**Description:** A capacity certification program can reduce the number of SSOs in the Metro Water District. Capacity certification programs allow local wastewater providers to determine whether adequate wastewater collection and treatment capacities exist or will be available within their sewer systems, before authorizing new flows and sewer service connections.

Some portions of the Metro Water District are experiencing a great deal of infill development and re-development activity, which is expected to continue. When one home on a large lot is subdivided into multiple lots and residences, the volume of wastewater increases. Similarly, if a sewer system extends beyond its originally planned boundaries, additional flows are added to the system. These additional flows can strain the existing collection system that was initially designed for lower volume flows. Capacity certification programs allow local wastewater providers to determine whether adequate wastewater collection and treatment capacities exist or will exist within their sewer systems before authorizing new flows and sewer service connections.

**Implementation Guidance:** The capacity certification program must be clearly described. It should address at what point in the planning/development process various levels of review are performed (during initial building permit application, requests for zoning/rezoning, sewer connection requests, etc.) and which agencies of the organization will be responsible for certifying capacity availability. Coordination with local government development agencies will be needed to develop and implement appropriate procedures.

Building permit applications should include detailed plans, estimated wastewater flows and supporting calculations. The authorizing agency within a jurisdiction will certify that the system has available adequate capacity to collect, transmit and treat additional flows associated with new building construction and occupancy. Alternately, the authorizing agency will certify that ongoing or planned sewer system improvements would provide the capacity needed to handle the additional flows. A capacity certification form will be completed and signed by authorized representatives before a service connection is allowed.

Certification of sewer collection capacity alone is not sufficient. In addition to certifying capacity, it is necessary to certify transmission and treatment capacities to ensure reduction in sewer system overflows, while ensuring compliance with the requirements of wastewater permits. Using these guidelines, each local wastewater provider will develop its own unique capacity certification program based on system specific conditions and available information.

To implement flow and rainfall monitoring requirements, most wastewater treatment facilities have flow meters as part of their wastewater permit requirements. Additional flow meters may be needed to address capacity certification, depending on the location of existing flow monitoring devices and the extent of the system. If strategically located, flow monitors can track wastewater flow trends and aid in determining the volume of I/I entering the collection system upstream of the flow monitor. The combination of wastewater flow and rainfall monitoring is typically used to estimate the peak flows associated with various rainfall events. It is recommended that flow and rainfall monitoring be performed continuously within older sewer systems. Where possible, flow monitoring should be performed continuously at all major pump stations and wastewater treatment facilities.

In lieu of traditional flow monitoring, some systems may be able to determine actual flows using run time data from pump stations within the collection system. Pump station run time calculations are acceptable if they accurately determine the volume of flow through the system.

To implement the hydraulic modeling requirements, the conveyance capacity of a sewer system can be estimated through manual calculations or based on data output from a hydraulic model of the collection system. A hydraulic model is a tool that can be used to determine the available sewer system capacity and to estimate the ability of the system to handle additional wastewater flows. A computer-based model may be preferred due to the number of iterations expected with planned system extension. A comprehensive sewer system map (Action Item WW-2) will provide the base data needed to develop an accurate hydraulic model. Flow and rainfall monitoring will be used to calibrate the hydraulic model as well as provide the needed information on anticipated inflow and infiltration volumes.

The hydraulic model of each sewer system should be maintained and updated as needed to minimize SSOs, but at a minimum, it should be updated prior to planned future expansions that may stress the collection system. Some local wastewater providers may choose a method of calculation of available capacity in lieu of developing a hydraulic model with specialized software, such as a spreadsheet. Regardless of the tool chosen, the local wastewater provider must have a means for determining available capacity in the system and determining the impact of additional wastewater flows on the collection system.

Communities that have an approved CMOM program with Georgia EPD can demonstrate compliance through certification of their CMOM program based on the most recent CMOM audit.

#### Resources:

- EPA, Guide for Evaluating CMOM Programs at Sanitary Sewer Collection Systems, January 2005, [https://www3.epa.gov/npdes/pubs/cmom\\_guide\\_for\\_collection\\_systems.pdf](https://www3.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf)