CITY OF HAMPTON

STATE OF GEORGIA

RESOLUTION NO. 2025 -70

WHEREAS, the Mayor and Council are the governing body of the City of Hampton, Georgia; and

WHEREAS, the Mayor and Council is tasked with protecting and promoting the health, safety, morals and welfare of the citizens of the City of Hampton; and

WHEREAS, the City desires to update its Water Conservation Plan ("WCP") and; and

WHEREAS, a WCP is designed to identify water conservation goals, benchmarks, best practices, and implementation actions so that the City can reduce water waste, water loss, and where necessary, water use; and

WHEREAS, the City's WCP was updated to support the City of Hampton's pending Application for a Permit to Use Groundwater (075-0004).

WHEREAS, the City's WCP (attached hereto at **Exhibit "A"** and incorporated by reference) reflects the City's water conservation efforts and ways the City will maximize the benefit from each gallon of water used.

BE IT HEREBY RESOLVED, by a majority vote of the Mayor and Council of the City of Hampton, that the City shall adopt the attached WCP and authorize the City Manager or his designee to sign all related documents to ensure the City is compliant with water conservation planning and audits.

SO RESOLVED, THIS 14th day of October, 2025.

[signature on following page]

CITY OF HAMPTON, GEORGIA:

ANN TARPLEY, Mayor

ATTEST:

MICHELLE HOOD, City Clerk

APPROVED AS TO FORM:

L'ERIN BARNES WIGGINS, City Attorney

EXHIBIT "A"

(Water Conservation Plan)

WATER CONSERVATION PLAN

Permit to Use Groundwater Application Supplement
Hampton, Georgia 30228
Permit Number: GA 075-0004

Prepared for:

CITY OF HAMPTON
17 East Main Street
Hampton, Georgia 30228

Updated
September 2025

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APPENDIX

INTRODUCTION

This Water Conservation Plan (WCP) was updated to support the City of Hampton's pending Application for a Permit to Use Groundwater (075-0004). The existing permit, which expired December 15, 2024, allowed for the withdrawal of 0.369 million gallons per day (MGD) from four (4) wells. The City of Hampton is also a member of the 15-county Metropolitan North Georgia Water Planning District (MNGWPD) and is subject to District Water Conservation Planning and audits.

The City of Hampton is located 30 miles south of Atlanta, on State Route 20 near U.S. Highway 19/41, in Henry County, Georgia. The City has experienced growth during the past several decades requiring increased dependence on water purchased from Henry County. In 2024, this purchased water accounted for nearly 93% of the City's supplied Water.

The following items are described for the City's system:

- System Management
- Identification of Water Conservation Measures
- Drought Contingency Plan
- Implementation of Water Conservation Measures
- Analysis of Benefits and Costs
- Education Efforts
- Preparation of Demand Forecast
- Evaluation of Strategy

Any questions regarding the City of Hampton's water system and/or water conservation measures can be directed to Mr. Justin Conner, City of Hampton Public Works Director at 770-946-3234.

I. SYSTEM MANAGEMENT

A. System Overview

The City of Hampton currently purchases water from Henry County Water and Sewerage Authority (HCWSA) and produces water from three (3) wells. The City has approximately 42.5 miles of water distribution lines and approximately 2,826 service connections serving a an estimated population of 7,305 persons based on the 2024 Water Audit.

Per the 2024 Water Audit, the water supplied was 242.590 million gallons (MG) per year (0.663 MGD) with an authorized consumption of 176.298 MG per year (0.482 MGD). These values include water produced by the well system and water purchased from the HCWSA.

B. Unaccounted for Water

The City of Hampton calculates Unaccounted for Water (UAW) by subtracting the total amount of water sold from the total amount of water produced and purchased. In the table below, this is called Non-Revenue Water.

Table 1: City Water Data

Year	Non-Revenue Water (MG/YR)	Non-Revenue Water (gal/day)	Annual Average Daily Withdrawal (AADW) (MG/YR)	Annual Average Daily Withdrawal (AADW) (gal/day)	Population (Water System Profile)	Equivalent Per Capita Usage (gal/capita/day) (AADW/pop)	Water Billed (MG/YR)
2020	64.703	176,784	224.953	614,626	7,305	84	160.250
2021	67.917	186,074	224.158	614,132	7,305	84	156.241
2022	98.096	268,756	260.370	713,342	8,323	86	162.274
2023	69.200	189,589	261.516	716,482	7,305	98	192.316
2024	66.732	182,328	242.59	662,814	7,305	91	175.858

II. IDENTIFICATION OF WATER CONSERVATION MEASURES

A. Review of Water Conservation Measures

a. Leak Detection and Elimination

All Departmental employees as well as other City employees, and specifically right-of-way mowers, are encouraged to be observant of unusual wet spots or depressions in pavement. The City owns leak detection equipment and uses the equipment to find leaks throughout the system.

All reports are promptly investigated. Leaks are repaired immediately ahead of new connections in the order of priority. The City has the in-house capability to repair leaks and breaks and maintains an inventory of replacement items. All new water lines constructed within the City are pressure tested before they are buried.

b. Water System Maps

The City of Hampton maintains accurate maps of the water system. The City retained professional services to create a Water System Model using WaterCAD. The model provides specific data on the system, including the length, diameter, material of construction, and flow velocity of each pipe. The model is periodically used to assess line pressure, fire flow, and storage requirements for programmed improvements.

c. Meter Maintenance, Testing, Replacement, and Calibration

In conformance with USEPA Guidelines (Table 2-3), the City of Hampton's system serves a population under 10,000 and is recommended for "basic" conservation measures consisting only of source-water, service-connection, and public use metering. Therefore, the City does not have a formal meter maintenance and replacement program as recommended for "advanced" guideline communities. However, many of the City's older residential meters were replaced during the City's conversion to radio-read metering. Existing meters are immediately repaired and/or replaced when problems are identified. Larger meters are calibrated biannually to maintain accuracy. All interconnections are serviced and maintained by Henry County WSA under the existing Service Delivery Agreement.

d. Recycling or Reuse of Treated Wastewater within the System

The City of Hampton encourages wastewater reuse and does have a policy which requires Car Wash operators within the City Limits to recycle their used water. Treated wastewater is utilized to wash and clean the plant and equipment at the

City's Wastewater Treatment Plant (WWTP). The City also utilizes the water to clean wastewater pipes within the collection system.

e. Upgrading Old Equipment with New Water-Efficient Equipment

The City of Hampton makes every effort to install and replace old equipment with new water- efficient equipment. In 2012, the City joined the MNGWPD toilet rebate program for replacement of pre-1993 residential toilets and began distributing information on Low Flow Retrofit Kits to service area customers. All new construction includes high efficiency fixtures.

f. Plumbing Ordinances and Other Codes that Promote Water Conservation

Ordinance 2024-29 amended Part II - Chapter 18, Article III, which addresses flow rate of plumbing fixtures. The maximum flow for a showerhead is 2.0 gpm, a kitchen faucet is 1.8 gpm, and a toilet is 1.28 gallons per flushing cycle.

The City is a member of the MNGWPD. The City is also a member of the Henry County Planning Commission and gives the HCWSA the authority to impose bans, restrictions, or curtailments of water usage as defined by priority in the Water Conservation Plan and Drought Contingency Plan of the HCWSA.

g. Prevention of Unauthorized or Excessive Water Use

The City is keenly aware of the potential problem of unauthorized water use and watches it closely. City personnel and the Police Department look for safety hazards as well as unauthorized connections to meters and hydrants. Areas of high water use deemed not to have leaks are thoroughly investigated for unauthorized water use. Contractors are required to purchase and use temporary meters during construction. Information is periodically included with the water bills concerning system security and theft prevention, and historic water usage is provided to ensure residents are aware of any spikes in usage.

B. Other Water Conservation Measures

The City is involved in the implementation of not only the water conservation measures outlined in Section A and those implemented by the District, but also measures that the City feels reduces loss of water. The following are a few of those examples.

a. Tank Overflows

All tanks are connected to a central SCADA system that monitors and controls tank levels 24- hours/day, 7 days/week. The tanks have automatic shut off altitude valves to prevent overflows. The SCADA system monitors tank levels and controls well pumping and system valves.

b. Fire Flows

The City has taken steps to ensure Fire Department and Water Department personnel do a more accurate estimate of water losses during flush outs to account for more non-revenue volumes. This water loss accounts for a portion of the non-revenue water in the system.

c. Metered Service Connections and Conservation Pricing

The City is committed to ensuring that there are no unmetered service connections within their service area. The City has adopted a three-tiered rate structure to promote water conservation in accordance with District guidelines. These rates are adjusted annually to ensure adequate funding for system operation and maintenance.

C. Selection Criteria for Choosing Water Conservation Measures

The District Water Conservation Plan has identified 10 water potential conservation measures for consideration:

- Leak Detection and Elimination
- Water System Maps
- Meter maintenance, testing, replacement, calibration
- Recycling or reuse of treated wastewater within the system
- Upgrading old equipment with new water-efficient equipment
- Enforcement of plumbing ordinances
- Prevention of unauthorized use
- Tank overflows
- Fire Flows
- Metered service connections and Conservation Pricing

The City has implemented all of the measures to some degree. The City will continue to implement and improve on these measures in the future.

The MNGWPD identifies 26 water conservation measures in their May 2009 Water Supply and Water Conservation Management Plan (District Plan). In Section 4 of the District Plan, the MNGWPD used a Least Cost Decision Support System (DSS) model to evaluate the quantitative water conservation measures. This modeling process took into consideration the technology/market maturity, service area matches, and customer acceptance/equity. Four water conservation packages were identified by the District.

Package A is composed of the 10 existing water conservation measures. Package B is composed of Package A plus 4 new water conservation measures. And Package C is

comprised of all 16 evaluated water conservation quantitative measures. An Optional Education Toolbox was also presented in the MNGWPD Plan. This Toolbox is a collection of qualitative measures that the District is not currently mandating but working on guidance for possible future implementation.

These Packages are as follows:

Package A:

- Water Conservation Rates
- Replace older, inefficient plumbing fixtures
- Rain-sensor shut off device on irrigation controls
- Multi-family sub metering requirement
- Water loss reduction
- Residential water audits
- Low flow showerhead and aerator distribution
- Commercial water audits
- Expanded public education program

Package B:

- Package A
- High Efficiency Toilet Rebates
- Installation of High Efficiency Toilets and urinals in government buildings
- Irrigation meter pricing
- Require car washes to recycle water

Package C:

- Package A & B
- Focused water audits for hotels/motels
- Restaurant low flow spray rinse nozzles
- Clothes washer rebates

Optional Education Toolbox

- Water waste ordinance
- Prohibit HOA or CC&R conditions that mandate irrigation
- Cooling tower education
- Promote water efficiency aspects of green buildings
- New home efficiency award program promotion
- Award program for water savings by businesses

- Offer landscape training classes to homeowners
- Xeriscape demonstration gardens
- School Education
- Provide historical water use on water bills

Because the City is located within the MNGWPD, the City follows the District's Plan for implementing and choosing water conservation measures. The District recommended implementation of Package B based on their cost effectiveness analysis and has conducted periodic audits of the City's progress based on this package. The City stays in contact with the District concerning water conservation measures.

D. Barriers for Implementing Water Conservation Measures

The City of Hampton is a relatively small municipality and tries to implement all reasonable water conservation measures. The main barriers for implementation of any program in the City is time and cost. The City makes every effort to implement the water conservation measures in accordance with recommended guidelines but is often limited by funding constraints which slow the City's desired progress. Therefore, the City looks for every opportunity to share or contribute to ongoing water conservation programs with Henry County and the District.

III. DROUGHT CONTINGENCY PLAN

The City currently purchases approximately 93% of their water supply from the Henry County Water and Sewerage Authority. In order to simplify drought rules and regulations for consumers, the City has historically operated under the HCWSA Drought Contingency Plan. This will continue into the foreseeable future since the HCWSA purchased water is much more drought sensitive than the City's groundwater supplied production. However, at some point the City may develop their own Plan based on the ultimate water volumes produced.

The City acknowledges that the State of Georgia has developed the Drought Management Rules, Chapter 391-3-30, which identifies a drought declaration process, pre-drought strategies, and drought responses, and the City will follow and abide by any and all drought response levels and restrictions imposed by the State. If local conditions and/or actions warrant a different drought response level (more or less restrictive) than the current State mandated drought response level, the City must submit a Variance application request for EPD approval to implement measures that differ from the State's current declared drought response level.

IV. IMPLEMENTATION OF WATER CONSERVATION MEASURES

The following table is an inclusive list of the water conservation measures identified by the District's Water Conservation Plan. The table presents the City's status for each of the recommended water conservation measures:

Table 2: Water Conservation Measures Timeline City of Hampton, Georgia

Water Conservation Measure	Action	Start Date	Frequency
Water Conservation Measures from Water Conservation Plan			
Water System Maps	Keep current water system map	2008	Ongoing
Reuse of Treated Wastewater	Explore new ways to use reuse water	2011	Ongoing
Upgrading Old Equipment with New Water Efficient Equipment	Install high efficiency toilets and urinals in government buildings	2012	Complete
Plumbing Ordinances and Codes	Enforce plumbing ordinances and codes	2006	Ongoing
Tank Overflows	Monitor tanks for overflows	2011	Ongoing
Water Conservation Rates*	Implement rate structure to provide inclining block	2008	Annual Review
Rain-sensor shut off device on irrigation controls*	Enforce State law requiring rain sensor irrigation shut-off switches	2010	Ongoing
Multi-family sub metering requirement*	Adopt ordinance to require all new multi-family buildings be built with sub-meters.	Adopted 2006	Enforcement Ongoing
Residential water audits*	Provide water audits to residential customers through mailings	2010	3-Year Mailers "Do It Yourself Household Water Assessment"
Expanded public education program*	Participate in a minimum of 2 Education and outreach Activities and 2 Public Participation and Involvement Activities	Implemented	Ongoing

Water Conservation Measure	Action	Start Date	Frequency
Water Conservation Measures from Water Conservation Plan			
Water loss reduction*	Calculate water loss	2009	Annual
	Adopt and follow Water Conservation Plan	2009	Ongoing
Meter Maintenance, Testing, Replacement, and Calibration	Contact vendor to establish a meter replacement program	2008	As Needed
	Calibrate large meters	2008	Every 2 years
Fire Flows	Require Fire Department to more accurately report monthly volume of water used	2011	Ongoing
Unmetered Service Connections	Eliminate all unmetered service connections	2010	Ongoing
High Efficiency Toilet Rebates*	Promote District sponsored program	2012	Ongoing
Leak Detection and Elimination	Develop Leak Detection (Inspection & Maintenance) Program	2011	Re-evaluate Plan for effectiveness 2027
Low flow showerhead and aerator distribution*	Distribute low-flow retrofit kits to customers	2012	District Program
Commercial water audits*	Provide Commercial Water Audits	2012	Trained personnel and offer water audits by request
Replace older, inefficient plumbing fixtures*	Participate in regional program for replacement of low flow fixtures to homes built prior to 1993	2012	Ongoing

Water Conservation Measure	Action	Start Date	Frequency
Water Conservation Measures from Water Conservation Plan			
Irrigation meter pricing*	Provide a separate meter pricing for irrigation meters	2011	Review Annually
Prevention of Unauthorized or Excessive Water Use	Label fire hydrants and analyze billings	2011	Review Annually
Focused water audits for hotels/motels*	Provide water audits to hotels and motels	Implement with District	Yearly
Restaurant low flow spray rinse nozzles*	Develop a pre-rinse spray valve retrofit educational program	Implement with District	Distribute Brochures
Clothes washer rebates*	Provide rebates for high efficiency clothes washers		Ongoing
Require car washes to recycle water*	Pass regulation that requires all new drive-through car washes to recycle water.	2011	Ongoing
Water Waste Ordinance**	Adopt Model ordinance from District concerning over-watering landscaping, irrigation during rainfall events, not repairing leaks, and other wasteful activities.	2012	Ongoing
Prohibit HOA or CC&R conditions that mandate irrigation**	District to research policy to not allow HOA to require irrigation.	**NA**	Revisit 2027
Cooling Tower Education**	Provide education to industry about efficient use of cooling towers	**NA**	Revisit 2027
Promote water efficiency aspects of green buildings**	Work with District to promote green buildings	**NA**	Revisit 2027
New home efficiency award program promotion**	Work with District to co-sponsor award program	**NA**	Revisit 2027

Water Conservation Measure	Action	Start Date	Frequency
Water Conservation Measures from Water Conservation Plan			
Award program for water savings by business**	Promote District sponsored program	NA	Revisit 2027
Offer landscape training classes**	Conduct landscape water efficiency training program each spring	NA	Revisit 2027
Xeriscape demonstration gardens**	Create a demonstration garden and provide signs and brochures	NA	Revisit 2027
School Education**	Provide presentations, opportunities for field trips and coloring books to students	2011	Annually with Henry County Schools
Provide historical water use on water bills*	Provide detailed information on customer's historical water use	2008	Ongoing

* Water Conservation Measures from the Metropolitan North Georgia Water Planning District

**Optional Education Toolbox from the Metropolitan North Georgia Water Planning District

The table shows that the City has taken a proactive approach to water conservation and has implemented many of the water conservation measures noted as Optional Education Toolbox Measures from the District.

V. ANALYSIS OF BENEFITS AND COSTS

The MNGWPD has performed an elaborate cost and benefit effective analysis of the 16 water conservation measures presented in the District Plan and suggests that each of the Counties and their municipalities implement the water conservation measures presented in Package B. By implementing the Package B measures, the District has estimated an 8% average water savings across the District by the year 2035 which translates to a savings of approximately $60,000 per year for the City of Hampton using 2013 Volumetric Revenues.

VI. EDUCATION EFFORTS

The District standards as published in the May 2009 Water Supply and Water Conservation Management Plan (District Plan) require the City of Hampton to have a minimum of two (2) Educational and Outreach Activities and two (2) Public Participation and Involvement Activities concerning water conservation.

A. Education and Outreach Activities

The District Plan identifies ten (10) potential Education and Outreach Activities:

- Bill stuffers or newsletters
- Brochures at municipal facilities
- Website with water conservation
- Local Cable or Government TV station programming
- Speakers bureau presentation
- Press Release
- Provide historical water use on water bills
- Adopt a water waste ordinance
- Xeriscape demonstration garden
- Promote toilet rebate program

The City is required to implement two (2) of the programs through the District. The City currently practices four (4) of the recommended measures. The City periodically sends out bill stuffers and provides historic water use on the water bills. The City maintains water conservation brochures for distribution at their public facilities which includes the promotion of the District's toilet rebate program.

B. Public Participation and Involvement Activities

According to the District Plan, the City of Hampton should also implement two (2) Public Participation and Involvement Activities, such as:

- Water treatment facility tours
- Citizen advisory group
- Water festival
- School classroom education
- Technical training to target audiences
- Retrofit kit distribution
- Essay contest
- Coloring book contest
- Community workshops
- Interactive kiosks/exhibits

Many of these Activities are difficult to implement in a City the size of Hampton. However, in coordination with the County and District, the City does support four (4) of the listed measures.

The City of Hampton does not have its own school system but works with Henry County in supporting water conservation education in the classroom at the local school. The City works with the River's Alive chapter during their annual activity to present water conservation information to participants including local Scouting groups and distributing informational door hangers. The City also provides a Water Conservation information booth during the Annual Trick or Treating Night. The District requires all Cities to participate **in** the distribution of low-flow retrofit kits to customers. The City initiated this measure in 2011 and have the retrofit kits available to residents on request.

C. Education Efforts Implementation Timeline

Table 3~~Table 3~~ is a timeline for educational efforts made by the City. Some of these items can also be found on the Water Conservation Measures Timeline.

Table 3: Education Efforts Timeline City of Hampton, Georgia

Education Efforts	Action	Start Date	Frequency
Education and Outreach Activities			
□ Bill stuffers or newsletters	Mail out newsletters concerning water conservation	2009	Monthly
□ Brochures at municipal facilities	Provide brochures concerning water conservation at local municipal facilities	2011	Ongoing
□ High Efficiency Toilet Rebates	Promote District sponsored program	2010	Ongoing
□ Water Waste Ordinance	Adopt Model ordinance from District concerning over-watering landscaping, irrigation during rainfall events, not repairing leaks, and other wasteful activities.		Ongoing
□ Provide historical water use on water bills	Provide detailed information on customer's historical water use		Ongoing
Public Participation and Involvement Activities			
□ Retrofit Kit Distribution	Distribute low-flow retrofit kits to customers	2011	On Request
□ Water Festival	Supports River's Alive Activity and Distributes door hangers	2010	Annual
□ School Classroom Education	Supports Henry County School System's Water Conservation Education	2012	Annual
□ Interactive Kiosks/Exhibits	Water Conservation Information Booth at Trick or Treating Night	2010	Annual

VII. PREPARATION OF DEMAND FORECAST

A. Historical Data

Historical data for the City of Hampton was collected from calendar year water audits. Annual data is provided for the past five years. A summary of the data is presented in the table below.

Table 4: Historical Data City of Hampton

Year	Annual Average Daily Withdrawal (AADW) (gal/day)
2020	614,626
2021	614,132
2022	713,342
2023	716,482
2024	662,814

B. Water Demand Forecast

The City of Hampton is required to provide a 20-year water demand forecast as part of their Water Conservation planning requirements. The most direct method of planning is using the City's historic population proportions with Henry County based on Census data to project the City's population based on the Governor's Office of Planning 2024 population projections. The latest per capita water demand for the City is used in the following table for water projections. The available population data for direct water demand forecasting is in the table below.

Table 5: Population and Water Demand Forecast Henry County and City of Hampton

Year	Henry County Population	City of Hampton Population	City/ County Ratio	2024 City Demand (gal/ capita/ day)	City Demand (gal/day)
2020	240,712	8,368	0.03476	N/A	N/A
2025	260,873	9,069	0.03476	91	825,279
2035	300,450	10,445	0.03476	91	950,495
2045	343,488	11,941	0.03476	91	1,086,631

Populations from 2025, 2035, and 2045 are estimates based on the Governor's office for Henry County. Populations form 2020 are based on US Census data.

In the table above, it is assumed the per capita demand will remain the same as it currently is. The City will continue to purchase their required surplus and peak water supply needs from Henry County and will continue to seek improvements to reduce UAW.

VIII. EVALUATION OF STRATEGY

A. Review of Water Conservation Plan

The City will continue to submit annual reports of water use and UAW to the EPD.

2025 WATER SYSTEM RATE SCHEDULE