APPENDIX B

County-Level Summaries

Appendix B outlines the anticipated schedule for expanding hydraulic capacity and building new water and wastewater treatment facilities in the Metro Water District to meet 2050 forecasted demands. Actual timing of new or expanded facilities or supplies will occur when local growth and planning indicate the need for additional capacity. This Appendix also includes non-capital programs, such as intergovernmental agreements for the joint use of water and wastewater facilities and other studies necessary to protect water resources and facilitate planned expansions. The information in this Appendix was provided by utilities and local governments based on their local water and wastewater planning efforts.

Integration of the three water resources planning areas (water supply and water conservation management, watershed management and wastewater management) is reflected in the facility plans outlined in this appendix. Planning considerations, such as the return of high-quality effluent to Lake Lanier, Allatoona Lake and the Upper Flint River basin to promote long term sustainability of water use and replenish drinking water supplies and the decommissioning of less efficient wastewater treatment facilities to benefit water quality, influenced the county-level summaries.

This Appendix covers hydraulic capacity only, and it does not cover upgrades to the level of treatment at existing water and wastewater facilities. The level of treatment at wastewater treatment plants may in some cases be impacted by the effectiveness of nonpoint source pollution controls, including those outlined in this Plan, and changes in the assimilative capacity of receiving streams.

Water supply and sewered wastewater needs for 2025 and 2050 are depicted with two forecast scenarios as discussed in Section 4. These scenarios represent forecasted needs based on the following two foundations for population projections:

Scenario 1: ARC Population and Employment Projections (2020 to 2050)

Scenario 2: Georgia OPB Population Projections and OPB-Based Employment Projections (2020 to 2050)

When evaluating facility capacity for future years, the higher of Scenarios 1 or 2 was considered to confirm sufficient hydraulic capacity will be available to meet future needs.

Facility capacities listed in this appendix for each planning period are considered as maximums, and utilities may plan within and up to that capacity. All new facilities and facility expansions identified in Appendix B are subject to permitting by Georgia EPD and must meet all state standards associated with the necessary permits. Inclusion within this Plan does not guarantee a permit.

The tables in this appendix may not include some small public, private, and/or public-agency wastewater treatment facilities that are operating on an interim basis until such a time as growth allows for consolidation at major wastewater treatment facilities. Some local wastewater providers may elect to decommission some of these facilities during a prior period than what is shown. Small facilities that will be decommissioned earlier than shown in this appendix with their wastewater flows consolidated at another facility in the Metro Water District will not require a plan amendment.

Summary of Planned Sources

A summary of water supply sources is provided for each county including the current permitted withdrawal and the planned 2050 withdrawal. The monthly average day peaking factor of 1.2 (maximum month average day/average annual day) was calculated for the 2003 Water Supply and Water Conservation Management Plan. It was reviewed and confirmed as appropriate for the 2017 Plan during the plan update process.

Plant Capacities

Plant capacities listed in this Appendix were determined to meet or exceed the projected 2050 peak day water demand or maximum monthly flow wastewater facility treatment demand. It is recognized that plant capacity is added in increments based on design factors and economies of scale and not to match a specific projected flow on the date the additional capacity comes online. For example, if a water treatment plant or wastewater treatment plant with a 5-MGD capacity needs to handle a projected demand of 8 MGD, the most cost efficient plan may be to double the current capacity to 10 MGD. The size of incremental expansions should be determined through local water and wastewater master plans based on the design of the facility, economies of scale and the community's needs.

The forecasts of water treatment plant capacity in this appendix were based on a District-wide average peaking factor of 1.6 (peak day/average annual day). This peaking factor was calculated for the 2003 Water Supply and Water Conservation Management Plan. It was reviewed and confirmed as appropriate for the 2017 Plan during the plan update process. The forecasts of wastewater treatment plant capacity in this appendix were based on a District-wide average peaking factor of 1.25 (maximum monthly average daily flow/average annual daily flow) for wastewater demands along with county infiltration/inflow factors. At a local level, these factors will vary for each utility due to variations in water distribution and collections system efficiency. Each utility must determine an appropriate peaking value and the impacts of water conservation measures on future flows in their local water and wastewater master plans (see Action Items INTEGRATED-2 and INTEGRATED-4).

Significant proposed changes in plant capacity will be evaluated against the essential elements of this Plan through the Plan Amendment process, as discussed in Section 6.5.1 and outlined in the most recent Adopted Plan Amendment Guidelines. Minor changes in phasing of capacity are considered consistent with this Plan and do not require an amendment.

Phasing

The capital improvement project phasing shown in this appendix was developed to provide adequate treatment capacity for the projected water and wastewater demands in that phase and to make steady progress toward implementing the essential elements of this Plan. Within this context, the timeframe for capital improvements in Appendix B is flexible. For example, delaying the date that a plant is decommissioned is generally acceptable. Expanding a plant in a different number of phases is also generally acceptable. Local water and wastewater master plans are expected to define the timeframes for capital improvements in greater detail than this Plan (see Actions Items INTEGRATED-2 and INTEGRATED-4).

The permitting, design, construction and start-up of additional treatment capacity is a lengthy process, generally taking several years at minimum. Although this plan uses the best population and economic numbers available, significant changes in population and/or economic growth can occur more rapidly than updates to this Plan. Utilities are encouraged to identify additional water capacities, especially those that are, by their nature, time sensitive for consideration in future amendments to this Plan.

Permitting

In several instances, planning for future water supplies, shared water supply allocations and local wastewater discharge locations are recommended for local water and wastewater providers within the same county. As such, the split shown in this Appendix between utilities within the same county is based on information available at the time this Plan was prepared and may change based on development and growth patterns in the county. In the case of such changes, an amendment to this Plan would be necessary. Treatment capacity may not be expanded without the issuance of a new or amended water withdrawal or wastewater discharge permit if the proposed facility expansion will expand the treatment capacity beyond the currently permitted water withdrawal or discharge limits.

Bartow County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Lewis Spring	Adairsville	4.1	4.5	6.0
Moss Spring	Emerson	0.5	0.5	1.5
Bolivar Springs	Bartow	0.8	0.8	1.0
Etowah River	Cartersville (Note 2)	23.0	57.0	76.0
Allatoona Lake	Cartersville	18.0		
Paleozoic Rock Aquifer	Emerson	1.0	1.0	1.0
Paleozoic Rock Aquifer	Kingston	0.15	0.15	0.15
Paleozoic Rock Aquifer	White	0.2	0.2	0.2
Total Withdrawal (MGD)		**47.8**	**64.1**	**85.9**

Notes:

(1) Monthly average day is 1.2 times annual average day.

(2) The intake in the Etowah River is only permitted to Cartersville. A future intake may have a joint permit with Bartow County.

Summary of Needs

Water Demands & Capacities	2025 Peak Day Demand (Note 3) (PD–MGD)		2050 Peak Day Demand (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Bartow County Needs	58.2	50.3	83.2	64.7
Self Supplied	-1.2	-1.2	-1.1	-1.1
Total Projected Demand from Facilities (PD-MGD)	**57.1**	**49.1**	**82.1**	**63.6**
Treatment Capacity (Note 5)	59.2		85.7	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	35.7	30.7	51.3	39.7

(3) Peak day is 1.6 times annual average day.

(4) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (PD-MGD)	Plant Capacity at End of Period (PD-MGD)	Plant Capacity at End of Period (PD-MGD)
Coosa Basin			
Adairsville WTP	4.0	6.0	6.0
Emerson WTP	0.5	1.0	1.5
Bartow County WTP	0.8	0.8	0.8
Cartersville Clarence B. Walker WTP	27.0	50.0	76.0
Groundwater			
Emerson	1.0	1.0	1.0
Kingston	0.15	0.15	0.15
White	0.2	0.2	0.2
Total Capacity (PD-MGD)	**33.7**	**59.2**	**85.7**

Notes:

5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

The Adairsville WTP is retained and expanded as necessary to serve its current service area.

Expand Cartersville WTP from 27 MGD to 76 PDD-MGD.

Expand Emerson WTP from 0.5 MGD to 1.5 PDD-MGD.

Non-Capital Programs

The following non-capital programs are specific to Bartow County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain existing interconnections and water supply agreements with Cherokee and Polk Counties.

Bartow County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Bartow County Sewered Needs	24.0	21.0	35.2	27.7
To Cobb County	-0.09	-0.09	-0.13	-0.13
Total Projected Sewered Flow to Plants	**23.9**	**20.9**	**35.1**	**27.6**
Septic Flows (AAD-MGD)	4.7	3.9	6.1	4.5

Capital Projects

- New treatment capacity will be provided by expanding the Adairsville, Cartersville, and Emerson facilities, as well as expanding the Bartow Southeast WPCP to serve the area of Bartow County South of the Etowah River. It will also be provided by building the new West Bartow WPCP. One existing facility will be phased-out, Bartow Two Run WPCP. Growth over the planning horizon will enlarge the service areas of the major facilities, leading to expansion of these larger facilities coupled with the decommissioning of Bartow Two Run WPCP.
- A planning study should be conducted by Bartow County and other jurisdictions, as needed, to decide among the options for the long-term plan for the Bartow Southeast WPCP.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Coosa Basin			
Adairsville North WPCP	1	5	5
Adairsville South WPCP	0.5		
Cartersville WPCP	15	15	20
Emerson Henry Jordan WWTP	0.45	1.5	2
Bartow Southeast WPCP	0.1	12.1	12.1
West Bartow WPCP (Note 4)			
Bartow Two Run WPCP	0.1	Decommission	
Total Capacity (MMF-MGD)	**17.2**	**33.6**	**39.1**
Sewered Needs (Note 5)		**23.9**	**35.1**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) West Bartow WPCP is estimated to be completed in the 2016-2025 timeframe with a capacity of 4.0 MGD.

5) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Bartow County. These programs are in addition to those that apply to all counties within the Metro Water District.

Develop multi-jurisdiction agreements among the county and cities.

Cherokee County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Lathem Reservoir (Yellow Creek)	CCWSA	36.0	39.8	53.0
Etowah River	Canton	5.5	7.5	10.0
Hickory Log Reservoir (Etowah River) (Note 2)	Canton CCMWA			
Crystaline Rock Aquifer	Ball Ground	0.25	0.25	0.25
Total Withdrawal (MGD)		**41.7**	**47.5**	**63.3**

Notes:

(1) Monthly average day is 1.2 times annual average day.

(2) Reservoir construction was completed in 2007. Cobb County-Marietta Water Authority (CCMWA) is entitled to 75% (33 MGD) and Canton to the remaining 25% (11 MGD). Intake for Canton is located in the Etowah River not in the reservoir. CCMWA's withdrawals are accounted for in the Cobb County Summary.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Cherokee County Needs	39.9	39.0	56.3	63.2
From CCMWA	-2.0	-2.0	-2.0	-2.0
Self Supplied	-1.8	-1.8	-1.6	-1.6
Total Projected Demand from Facilities (PD-MGD)	**36.1**	**35.2**	**52.7**	**59.6**
Treatment Capacity (Note 4)	48.3		63.3	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	22.6	22.0	32.9	37.3

(3) Peak day is 1.6 times annual average day.

(4) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Coosa Basin			
Canton WTP	5.5	10.0	10.0
Cherokee Etowah River WTP	38.0	38.0	53.0
Groundwater			
Ball Ground	0.25	0.25	0.25
Total Capacity (PD-MGD)	**43.7**	**48.3**	**63.3**

Notes:

(5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Canton and CCWSA should expand their WTP.

CCWSA sells water to Pickens, Dawson, and Bartow Counties. These plans are not precluded by the Metro Water District plan, but expansion will need to be permitted by Georgia EPD. Therefore, if these counties are served from Cherokee County, it does not reduce water supplies from the Etowah River sub-basin available to the Metro Water District.

Non-Capital Programs

The following non-capital programs are specific to Cherokee County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain existing interconnections and water supply agreements with Pickens, Forsyth, Cobb and Bartow Counties.

Cherokee County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Cherokee County Sewered Needs	18.3	17.7	28.5	33.0
To Cobb County	-0.61	-0.59	-0.95	-1.10
To Fulton County	-0.03	-0.03	-0.05	-0.06
From Fulton County (To Little River WRF)	1.18	1.26	1.40	1.72
Total Projected Sewered Flow to Plants	**18.8**	**18.3**	**28.9**	**33.5**
Septic Flows (AAD-MGD)	4.8	4.8	4.8	4.8

Capital Projects

- New treatment capacity will be provided by expanding the Canton WPCP, Cherokee County Water and Sewerage Authority's (CCWSA) Fitzgerald Creek and Rose Creek WPCPs. The CCWSA River Bend Environmental Complex has an ultimate planned capacity of 15.6 MGD. The City of Woodstock WPCP will continue to treat sewage from the City of Woodstock.
- Regionalization with adjoining jurisdictions can only be achieved by combining assimilative capacity from a requesting jurisdiction contingent upon mutually agreeable negotiations between the parties.

Basin Considerations

- Treated flow will be discharged to surface water bodies in the Etowah River Basin.
- Little River WRF will continue to discharge to surface water bodies in the Etowah River Basin.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Coosa Basin			
Woodstock Rubes Creek WPCP	2.5	2.5	2.5
CCWSA Fitzgerald Creek WPCP	5	37.35	42.35
CCWSA Rose Creek WPCP (Note 4)	6		
CCWSA Northeast WPCP/River Bend Environmental Complex (Note 5)			
Canton WPCP (Note 6)	4	8.0	8.0
Fulton County Little River WRF (Note 7)	1	2.6	4.0
Total Capacity (MMF-MGD)	**18.5**	**50.5**	**56.9**
Sewered Needs (Note 8)		**18.8**	**33.5**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment process.

4) CCWSA Rose Creek WPCP must report effluent flow used for reuse according to its B2 permit.

5) EPD will permit CCWSA to reposition wasteload capacity from the CCWSA Riverbend Environmental Complex to an additional future facility discharging into the Etowah River Basin in a separate outfall if future wastewater capacity demands in other areas of Cherokee County warrant. The CCWSA Northwest WPCP was approved by the MNGWPD through its amendment process and remains on the planning horizon as an additional wastewater treatment facility in Cherokee County in this basin.

6) Canton WPCP has B2 permit limit for up to 0.5 MGD of flow for reuse.

7) Fulton County Little River WRF has a B2 permit limit for up to 0.2 MGD of flow for reuse.

8) The higher of Scenario 1 and Scenario 2 Sewered Flow Forecast is depicted.

Clayton County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Flint River	Clayton	Fills Smith/Shoal Creek Reservoir	47.0	62.6
Smith/Shoal Creek Reservoir	Clayton	17.0		
Hooper Reservoir (Little Cotton Indian Creek)	Clayton	20.0		
Blalock Reservoir (Pates Creek)	Clayton	10.0		
Crystalline Rock Aquifer	Clayton	0.4	0.4	0.4
Total Withdrawal (MGD)		**47.4**	**47.4**	**63.0**

Notes:
(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 2) (PD–MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Clayton County Needs	46.2	46.6	60.1	53.8
Total Projected Demand from Facilities (PD-MGD)	**46.2**	**46.6**	**60.1**	**53.8**
Treatment Capacity (Note 3)	47.4		63.0	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	28.9	29.1	37.6	33.6

(2) Peak day is 1.6 times annual average day.
(3) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 4)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Flint Basin			
Clayton J.W. Smith WTP	12.0	12.0	12.0
Ocmulgee Basin			
Clayton W.J. Hooper WTP	20.0	20.0	20.0
Flint and Ocmulgee Basin			
Clayton Terry R. Hicks WTP	10.0	15.0	30.6
Groundwater			
Clayton County	0.4	0.4	0.4
Total Capacity (PD-MGD)	**42.4**	**47.4**	**63.0**

Notes:
(4) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Projection indicate that water sources should be adequate through 2050. Clayton County Water Authority (CCWA) would expand its three WTPs according to their local master plan. Infrastructure should be kept in place to allow transfers from the City of Atlanta to fill peak demands on an emergency basis.

Non-Capital Programs

The following non-capital programs are specific to Clayton County. These programs are in addition to those that apply to all counties within the Metro Water District.
Continue agreements with the Cities of Atlanta and College Park, DeKalb, Fayette, and Henry Counties.

Clayton County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Clayton County Sewered Needs	31.1	31.3	40.9	36.2
From Fulton County	0.05	0.06	0.06	0.08
From DeKalb County	0.11	0.12	0.14	0.12
From Henry County	0.02	0.02	0.02	0.02
To DeKalb County	-1.00	-1.00	-1.00	-1.00
Total Projected Sewered Flow to Plants	**30.3**	**30.5**	**40.1**	**35.5**
Septic Flows (AAD-MGD)	2.1	2.1	2.1	2.1

Capital Projects

New treatment capacity will be provided by expanding the W.B. Casey WRF.

Basin Considerations

The Clayton Northeast WRF will continue to discharge in the Ocmulgee River Basin. Currently the Clayton WB Casey WRF permit allows for 17.4 MGD discharge to the Ocmulgee River Basin via the wetlands treatment system and the remaining flow (up to 6.6 MGD and potentially an additional 8.0 MGD from plant expansion) will discharge into the Flint River. Flow from Clayton Shoal Creek WRF will also continue to discharge to the Flint Basin.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Flint Basin			
Clayton W.B. Casey WRF	6.6	19	19
Clayton Shoal Creek WRF	4.4		
Ocmulgee Basin			
Clayton W.B. Casey WRF	17.4	27.4	27.4
Clayton Northeast WRF	10		
Total Capacity (MMF-MGD)	**38.4**	46.4	46.4
Sewered Needs (Note 4)		**30.5**	**40.1**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Clayton County. These programs are in addition to those that apply to all counties within the Metro Water District.

Existing agreements to discharge wastewater to DeKalb Snapfinger WPCP will remain in place until a determination is made as to exact timing to reduce or eliminate those discharges.

Cobb County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Hickory Log Reservoir (Etowah River) (Note 2)	Cobb Canton	0.0	79.5	106.0
Allatoona Lake	Cobb	78.0		
Chattahoochee River	Cobb	87.0	87.0	116.0
Total Withdrawal (MGD)		**165.0**	**166.5**	**222.0**

Notes:

(1) Monthly average day is 1.2 times annual average day.

(2) Reservoir construction was completed in 2007. Cobb County-Marietta Water Authority (CCMWA) is entitled to 75% (33 MGD) and Canton to the remaining 25% (11 MGD). This reservoir provides a supplementary source of water to be withdrawn downstream in the Etowah River and Allatoona Lake. The City of Canton's withdrawals are accounted for in the Cherokee County Summary.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Cobb County Needs	123.4	129.0	156.9	153.5
To Paulding County	8.0		0.5	
To Douglas County	5.0		10.0	
To Cherokee County	2.0		2.0	
Total Projected Demand from Facilities (PD-MGD)	**138.4**	**144.0**	**169.4**	**166.0**
Treatment Capacity (Note 4)	159.0		222.0	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	86.5	90.0	105.9	103.8

(3) Peak day is 1.6 times annual average day.

(4) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
CCMWA Quarles WTP (Note 6)	86.0	87.0	116.0
Coosa Basin			
CCMWA Wyckoff WTP (Note 7)	72.0	72.0	106.0
Hickory Log Reservoir	0.0	0.0	0.0
Total Capacity (PD-MGD)	**158.0**	**159.0**	**222.0**

Notes:

(5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

(6) CCMWA is currently upgrading the Quarles WTP.

(7) Georgia EPD has granted to CCMWA the right to impound and withdraw certain made inflows to Allatoona Lake in accordance with DNR Rule 391-3-6-07(16)(a). Expansions of the Wyckoff WTP assume that CCMWA will be able to obtain additional yield from Allatoona Lake consistent with its permit (Georgia EPD Permit No. 008-1491-05, as modified Nov. 7, 2014). If, for any reason, CCMWA is not able to receive additional yield from Allatoona Lake under its permit, then supply would be from the Chattahoochee River, and the Quarles WTP would be expanded accordingly.

Capital Projects

CCMWA in conjunction with the City of Canton constructed the Hickory Log Creek Reservoir. The reservoir is a pump-storage facility that optimizes water use from the Etowah River and Allatoona Lake. It is permitted to yield 44 MGD.

Expand CCMWA Quarles WTP.

Non-Capital Programs

The following non-capital programs are specific to Cobb County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain existing interconnections and water supply agreements with Cherokee, DDCWSA and Paulding Counties.

Evaluate the required improvements to accommodate peak sale of 10 PD-MGD to DDCWSA.

Cobb County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Cobb County Sewered Needs	80.3	84.3	102.0	99.7
To Fulton County	-3.18	-3.34	-3.50	-3.50
From City of Atlanta	0.23	0.25	0.27	0.34
From Fulton County	7.38	7.92	8.80	10.79
From Fulton County (Big Creek)	3.50	3.50	3.50	3.50
To Paulding County	-0.07	-0.07	-0.09	-0.09
From Bartow County	0.09	0.09	0.13	0.13
From Cherokee County	0.61	0.59	0.95	1.10
From Douglas County	0.50	0.50	1.75	1.75
To Douglas County	-0.25	-0.25	-0.25	-0.25
From Paulding County	0.26	0.25	1.02	1.12
Total Projected Sewered Flow to Plants	**89.4**	**93.7**	**114.6**	**114.6**
Septic Flows (AAD-MGD)	4.7	4.7	4.7	4.7

Capital Projects

New treatment capacity will be provided by expanding the South Cobb WRF and an expected increase in permitted capacity at R.L. Sutton WRF.

Basin Considerations

The Cobb County Noonday Creek and Northwest WRFs will continue to discharge to the Coosa Basin, and the Cobb County RL Sutton and South Cobb WRFs will continue to discharge to the Chattahoochee River. Wastewater from within Cobb County will continue to be collected according to the natural drainage basin patterns for these two major basins.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016) Permitted Plant Capacity (MMF-MGD)	By 2025 Plant Capacity at End of Period (MMF-MGD)	By 2050 Plant Capacity at End of Period (MMF-MGD)
Coosa Basin			
Cobb Noonday Creek WRF	20.0	32.0	32.0
Cobb Northwest Cobb WRF	12.0		
Chattahoochee Basin			
Cobb RL Sutton WRF	40.0	100.0	110.0
Cobb South Cobb WRF	40.0		
Total Capacity (MMF-MGD)	**112.0**	**132.0**	**142.0**
Sewered Needs (Note 4)		**93.7**	**114.6**

Notes:

1) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

2) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) The higher of Scenario 1 and Scenario 2 sewered flow forecasts is depicted.

Non-Capital Programs

The following non-capital programs are specific to Cobb County. These programs are in addition to those that apply to all counties within the Metro Water District.

Continue regional cooperation on wastewater treatment issues.

Coweta County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
B.T. Brown Reservoir	CCWSA	6.7	7.5	10.0
Chattahoochee River	CCWSA	0	7.5	10.0
J.T. Haynes Reservoir	Newnan	14.0	14.0	18.6
Sandy Brown Creek	Newnan	Fill J.T. Haynes Reservoir only		
White Oak Creek (Flint River)	Newnan			
Line Creek (Flint River)	Newnan			
Hutchins' Lake (Keg Creek)	Senoia	0.3	0.34	0.45
Crystalline Rock Aquifer	CCWSA	0.504	0.504	0.504
Crystalline Rock Aquifer	Senoia	0.233	0.233	0.233
Total Withdrawal (MGD)		**21.7**	**30.0**	**39.8**

Notes:
(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 2) (PD–MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Coweta County Needs	27.8	25.6	38.0	37.6
Self Supplied	-1.8	-1.8	-1.4	-1.4
From Fulton County (Note 3)	-5.0		-10.0	
From Griffin's Still Branch Reservoir (Note 4)	-5.0		0.0	
Total Projected Demand from Facilities (PD-MGD)	**16.0**	**13.8**	**26.6**	**26.2**
Treatment Capacity (Note 5)	25.2		39.8	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
	10.0	8.7	16.6	16.4

Notes:
(2) Peak day is 1.6 times annual average day.
(3) Coweta County Water and Sewer Authority (CCWSA) is seeking a permit from Georgia EPD to have a direct withdrawal from the Chattahoochee River. If that water withdrawal is permitted and constructed, CCWSA would no longer purchase from the City of Atlanta. In either scenario, total withdrawals from the Chattahoochee will not be affected.
(4) The Still Branch Creek Reservoir is located outside of the District and is owned by the City of Griffin in Spalding County. The reservoir serves Pike and Spalding Counties as well as Coweta County. Coweta County has a purchase contract for 3.0 PDD-MGD of finished water (2008) from the City of Griffin which increases to 5.0 PDD-MGD on July 1, 2022.
(5) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 6)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
Coweta B.T. Brown WTP	6.4	10.0	20.0
Chattahoochee/Flint Basins			
Newnan Hershall Norred WTP	14.0	14.0	18.6
Flint Basin			
Senoia WTP (Note 7)	0.45	0.45	0.45
Groundwater			
Coweta County	0.504	0.504	0.504
Senoia	0.233	0.233	0.233
Total Capacity (PD-MGD)	**21.6**	**25.2**	**39.8**

Notes:
(6) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.
(7) The City of Senoia has a withdrawal permit with a monthly limit of 0.3 MGD from Hutchin's Lake and a WTP with a total capacity of 0.45 MGD-PD. The City will need to increase their water withdrawal permit in order to fully utilize the plant capacity.

Capital Projects

The B.T. Brown WTP should be expanded to 20 PDD-MGD to fully utilize the yield of B.T. Brown Reservoir.
A water intake pump station and force main to convey water from the Chattahoochee River to the B.T. Brown Reservoir

Non-Capital Programs

The following non-capital programs are specific to Coweta County. These programs are in addition to those that apply to all counties within the Metro Water District.
Maintain interconnections and water supply agreements with City of Atlanta and City of Griffin.

Coweta County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Coweta County Sewered Needs	9.2	8.4	13.5	13.4
Total Projected Sewered Flow to Plants	**9.2**	**8.4**	**13.5**	**13.4**
Septic Flows (AAD-MGD)	5.0	4.7	6.5	6.4

Capital Projects

Additional capacity will be provided by expanding the existing Coweta County and Newnan facilities and by the construction of new Coweta County, Grantville, Senoia, and Sharpsburg facilities. If opportunities become available, the following options may be exercised:
Option for Senoia to decommission the current LAS and send flow to future facilities.

Explore opportunities for beneficial effluent reuse with permits for wet weather discharge.

Basin Considerations

Coweta Shenandoah WPCP, Senoia LAS and the proposed Sharpsburg and Senoia WPCPs are located in the Flint Basin. All other Coweta facilities are located in the Chattahoochee Basin.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin			
Coweta Arnco WPCP	0.1	3.76	7.6
Coweta Arnall/Sargent WPCP	0.06		
Coweta Decentralized Systems			
Coweta Bridgeport WPCP			
Coweta 12 Parks WPCP			
Grantville Colley Street LAS (Note 6)	0.15	0.78	0.78
Grantville Ponds (Notes 5, 6)	0.12		
Grantville Yellow Jacket Creek WPCP (Notes 5, 6)			
Grantville New River WPCP (Notes 5, 6)			
Newnan Mineral Springs WPCP	0.75	6.5	10
Newnan Wahoo Creek WPCP	3		
Flint Basin			
Senoia LAS (Note 6)	0.49	3.3	7.5
Sharpsburg WPCP (Notes 4, 6)			
Senoia Southeast WPCP (Note 6)			
Coweta Crossroads LAS	0.23	4	6
Coweta Shenandoah WPCP	2		
Total Capacity (MMF-MGD)	**6.9**	**18.3**	**31.9**
Sewered Needs (Note 7)		**9.2**	**13.5**

Notes:

1) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

2) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) Sharpsburg WPCP is expected to have an initial capacity of 0.3 MGD by 2025. 0.15 MGD will be to LAS; an additional 0.15 MGD will either be to the LAS or new point source discharge.

5) Benefits of decommissioning these facilities will be investigated in the 2016 to 2025 time period.

6) Proposed capacity is to be shared between these facilities as determined by joint local wastewater master planning.

7) The higher of Scenario 1 and Scenario 2 sewered flow forecasts is depicted.

Non-Capital Programs

The following non-capital programs are specific to Coweta County. These programs are in addition to those that apply to all counties within the Metro Water District.

Undertake a joint planning study comprised of the county and local cities to develop a comprehensive, strategic plan for managing wastewater. The study should determine how to best utilize existing and proposed city and county treatment facilities to serve the whole area.

Develop multi-jurisdiction agreements among the county and cities, as needed.

Develop multi-jurisdictional agreements between the county, City of Senoia, Fayette County and Peachtree City, as needed, for regional plan.

Develop options for large industrial sites to be served by the County in the future.

DeKalb County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Chattahoochee River	DeKalb	140.0	120.0	160.0
Total Withdrawal (MGD)		**140.0**	**120.0**	**160.0**

Notes:

(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Annual Average Day (PD-MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
DeKalb County Needs	124.1	126.0	152.7	133.2
Total Projected Demand from Facilities (PD-MGD)	**124.1**	**126.0**	**152.7**	**133.2**
Treatment Capacity (Note 3)	150.0		160.0	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	77.5	78.7	95.4	83.2

(2) Peak day is 1.6 times annual average day.

(3) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 4)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
DeKalb Scott Candler WTP	150.0	150.0	160.0
Total Capacity (PD-MGD)	**150.0**	**150.0**	**160.0**

Notes:

(4) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Expand Scott Candler WTP to meet future demands

Non-Capital Programs

The following non-capital programs are specific to DeKalb County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections and water supply agreements with Gwinnett, Rockdale, Henry, and Clayton Counties and the City of Atlanta.

DeKalb County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
DeKalb County Sewered Needs	93.8	95.3	114.3	99.2
To Fulton (Fulton County + City of Atlanta)	-47.6	-48.4	-58.0	-50.3
To Clayton County	-0.1	-0.1	-0.1	-0.1
To Gwinnett County	-0.5	-0.5	-0.6	-0.5
From Clayton County	1.0	1.0	1.0	1.0
From Henry County	0.1	0.1	0.1	0.1
Total Projected Sewered Flow to Plants	**46.7**	**47.4**	**56.7**	**49.3**
Septic Flows (AAD-MGD)	2.9	2.9	2.9	2.9

Capital Projects

The treated flow from DeKalb Polebridge and Snapfinger WPCP's will be discharged to two rivers; combined plant discharges from the Snapfinger WPCP and the Pole Bridge Creek WPCP in excess of that currently permitted (56 mgd) will be either (1) returned to the Chattahoochee River Basin in accordance with a wasteload allocation to be issued by Georgia EPD or (2) indirectly reused for drinking water in DeKalb County thus reducing the County's future withdrawals from the Chattahoochee River. The reuse option may consist of an increased discharge beyond 56 mgd into the South River with a corresponding downstream water withdrawal for drinking water.

Basin Considerations

The treated flow from the DeKalb Polebridge and Snapfinger WPCPs will be discharged to two rivers; all flow above 56 MGD in the Ocmulgee basin portion of the County will be returne following one of the two scenarios outlined in Capital Projects, above.

Phasing Plan

Facilities (Notes 1, 2, 3, 4, 5)	Existing (2016) Permitted Plant Capacity (MMF-MGD)	By 2025 Permitted Plant Capacity at End of Period (MMF-MGD)	By 2050 Permitted Plant Capacity at End of Period (MMF-MGD)
Ocmulgee Basin			
DeKalb Pole Bridge AWTF	20	56	93
DeKalb Snapfinger AWTF	36		
Total Capacity (MMF-MGD)	**56**	**56**	**93**
Sewered Needs (Note 6)		**47.4**	**56.7**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) Discharge from Pole Bridge and Snapfinger is permitted by a combined discharge permit. New 54 MGD wastewater treatment plant adjacent to Snapfinger with an NPDES point discharge to South River in the Upper Ocmulgee River Basin. Demolition began in 2015 with expected completion in 2020.

5) Some small public, private, and/or public-agency WWTPs may be converted into pretreatment plants or transfer pump stations, while others could be retained, expanded, or modified to meet local conditions.

6) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to DeKalb County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain existing agreement with the City of Atlanta for treating wastewater at the RM Clayton and Intrenchment Creek WRCs.

Continue agreements to send/receive wastewater from Clayton, Fulton, Gwinnett, Henry, and Rockdale Counties.

Douglas County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Dog River Reservoir	DDCWSA	23.0	23.0	30.6
Bear Creek Reservoir (Note 2)	DDCWSA			
Lake Paradise/Cowens Lake	Villa Rica	1.5	0.5	0.6
Total Withdrawal (MGD)		**24.5**	**23.4**	**31.2**

Notes:

(1) Monthly average day is 1.2 times annual average day.

(2) Bear Creek Reservoir is a supplemental source to Dog River with a monthly permit limit of 6.4 MGD that is used to maintain in-stream flow.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Douglas County Needs	23.9	24.4	32.0	34.7
From CCMWA	-5.0		-10.0	
Total Projected Demand from Facilities (PD-MGD)	**18.9**	**19.4**	**22.0**	**24.7**
Treatment Capacity (Note 4)	24.0		31.2	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-**	**Scenario 2 2025 (AAD-**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	11.8	12.1	13.8	15.4

(3) Peak day is 1.6 times annual average day.

(4) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
DDCWSA Bear Creek WTP	23.0	23.0	30.6
Tallapoosa Basin			
Villa Rica Franklin Smith WTP (Note 6)	1.5	1.0	0.6
Total Capacity (PD-MGD)	**24.5**	**24.0**	**31.2**

Notes:

(5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

(6) The Villa Rica Franklin Smith WTP is located in Carrol County and provides water to areas outside Douglas County that are not included in these projections.

Capital Projects

N/A

Non-Capital Programs

The following non-capital programs are specific to Douglas County. These programs are in addition to those that apply to all counties within the Metro Water District.

Determine required improvements to accommodate routine purchase of 10 PD-MGD from CCMWA or expand existing plant capacity.

Maintain interconnections and water supply agreements with Cobb County Water System.

Douglas County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Douglas County Sewered Needs	10.1	10.3	13.4	14.5
From Cobb County	0.25	0.25	0.25	0.25
To Cobb County	-0.50	-0.50	-1.75	-1.75
Total Projected Sewered Flow to Plants	**9.9**	**10.1**	**11.9**	**13.0**
Septic Flows (AAD-MGD)	3.0	3.1	4.0	4.3

Capital Projects

- Wastewater treatment plants within the County will be expanded as demanded by growth.
- The Douglasville-Douglas County Water & Sewer Authority has constructed an alternate discharge point downstream from the current for the existing 6.0 MGD South Central Water Pollution Control Plant. This included a flow Augumentation line to send treated effluent flows downstream of the Dog River Reservoir. This supplements the 7Q10 flows, required by permit, between the dam and the Chattahoochee River and allows water supply reservoir conservation during times of low flow. A Sidestream Plant at the Sweetwater Creek WPCP has been upgraded to provide additional reuse flow to a private industry of up to 3.0 mgd from the current 1.75 MGD.

Basin Considerations

DDCWSA and Villa Rica North facilities will be discharged to surface water bodies in the Chattahoochee Basin. Villa Rica West discharges to the Tallapoosa Basin.

Phasing Plan

Facilities (Notes 1, 2 , 3)	Existing (2016) Permitted Plant Capacity (MMF-MGD)	By 2025 Plant Capacity at End of Period (MMF-MGD)	By 2050 Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin			
DDCWSA Rebel Trails WPCP	0.04	Decommission	
DDCWSA South Central UWRF	0.5	0.5	Decommission
DDCWSA South Central WPCP	6	17.0	20.0
DDCWSA Northside WPCP	0.6		
DDCWSA Sweetwater Creek WPCP (Note 4)	3		
Villa Rica North WPCP	0.52	0.84	0.84
Tallapoosa Basin			
Villa Rica West WPCP (Note 5)	2.15	2.15	6.5
Total Capacity (MMF-MGD)	**12.3**	**20.5**	**27.3**
Sewered Needs (Note 6)		**10.3**	**14.5**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan

4) DDCWSA may increase capacity either by expanding the Sweetwater Creek WPCP or by purchasing capacity from Cobb County Water System.

5) Villa Rica West WPCP is located within Carroll County; half of this facility flow was estimated to be generated in Douglas County.

6)The higher of Scenario 1 and Scenario 2 sewered flow Forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Douglas County. These programs are in addition to those that apply to all counties within the Metro Water District.

Participate in joint planning study with Cobb and Paulding Counties to develop a regional approach to wastewater management for the portion of Paulding County in the Chattahoochee Basin.

Develop multi-jurisdiction agreement with Paulding County and Cobb County, as needed.

Fayette County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Lake Horton (Horton Creek)	Fayette	14.0	23.3	31.0
Flint River		Fills Lake Horton only		
Whitewater Creek				
Flat Creek (Lake Kedron/Peachtree)		4.0		
Lake McIntosh		12.5		
Whitewater Creek	Fayetteville	3.0	0.0	0.0
Crystalline Rock Aquifer	Fayetteville	0.937	0.937	0.937
Crystalline Rock Aquifer	Fayette	0.875	0.875	0.875
Total Withdrawal (MGD)		**35.3**	**25.1**	**32.8**

Notes:
(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 2) (PD–MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Fayette County Needs	20.6	20.5	26.7	22.5
Self Supplied	-2.1	-2.1	-1.6	-1.6
Total Projected Demand from Facilities (PD-MGD)	**18.5**	**18.4**	**25.0**	**20.8**
Treatment Capacity (Note 3)	28.5		32.8	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	11.6	11.5	15.6	13.0

(2) Peak day is 1.6 times annual average day.
(3) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 4)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Flint Basin			
Fayette County Crosstown WTP	13.5	13.5	31.0
South Fayette WTP	9.2	9.2	
Fayetteville WTP	3.0	4.0	
Groundwater			
Fayetteville	0.937	0.937	0.937
Fayette County	0.875	0.875	0.875
Total Capacity (PD-MGD)	**27.5**	**28.5**	**32.8**

Notes:
(4) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

The City of Fayetteville should finalize the planning and development of the Whitewater Creek Reservoir. This facility would provide Fayetteville with a reliable water source and allow their WTP to operate through droughts, which in past years have forced the shut-down of the WTP.
The Fayetteville WTP is currently rated to run a 4 PDD-MGD but is limited by its withdrawals permit of 3 PDD-MGD.

Non-Capital Programs

The following non-capital programs are specific to Fayette County. These programs are in addition to those that apply to all counties within the Metro Water District.
Maintain interconnections and water supply agreements with City of Atlanta and Clayton County.

Fayette County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Fayette County Sewered Needs	7.4	7.4	8.9	7.6
City of Tyrone to Fulton County	-0.4	-0.4	-0.4	-0.4
Total Projected Sewered Flow to Plants	**7.0**	**7.0**	**8.5**	**7.2**
Septic Flows (AAD-MGD)	3.1	3.1	4.1	3.4

Capital Projects

Wastewater treatment in Fayette County will be provided at three existing facilities, two in Peachtree City and one in Fayetteville. The City of Fairburn and Fulton County will continue to provide wastewater treatment to Tyrone through agreements.

Basin Considerations

Treated flow will be discharged to the Flint Basin except that the Town of Tyrone will continue to discharge to the Chattahoochee Basin in accordance with the existing intergovernmental agreement with Fulton County.

Phasing Plan

Facilities (Note 1)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Flint Basin			
Peachtree City Line Creek/Larry B. Turner WPCP	2.0	6.0	6.0
Peachtree City Rockaway WPCP (Note 2)	4.0		
Fayetteville Whitewater Creek WPCP	5.0	5.0	5.0
Total Capacity (MMF-MGD)	**11.0**	**11.0**	**11.0**
Sewered Needs (Note 2)		**7.0**	**8.5**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The Peachtree City Rockaway WPCP is also permitted for 1.0 MMF-MGD of discharge to LAS.

3) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Fayette County. These programs are in addition to those that apply to all counties within the Metro Water District.

Evaluate the need for additional wastewater treatment capacity in local wastewater master plans.

Forsyth County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Lake Lanier	Cumming	18.0	27.0	36.0
	Forsyth (Note 2)	14.0	45.0	60.0
Crystalline Rock Aquifer	Forsyth	0.7416	0.7416	0.7416
Total Withdrawal (MGD)		**32.7**	**72.8**	**96.8**

Notes:

(1) Monthly average day is 1.2 times annual average day.

(2) Forsyth County has an agreement with City of Cumming to share the raw water withdrawal intake on Lake Lanier. The current permit states that at no time will the total water withdrawal rate (sum of the Forsyth County and City of Cumming withdrawals) exceed 37 MGD on a daily basis or 32 MGD on a monthly basis.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Forsyth County Needs	50.4	47.3	76.6	95.3
Self Supplied	-1.0	-1.0	-0.8	-0.8
Total Projected Demand from Facilities (PD-MGD)	**49.5**	**46.3**	**75.8**	**94.5**
Treatment Capacity (Note 4)	57.0		96.8	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	30.9	28.9	47.4	59.0

(3) Peak day is 1.6 times annual average day.

(4) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
Cumming WTP	24.0	24.0	36.0
Forsyth County WTP (Note 6)	28.73	32.2	60.0
Groundwater			
Forsyth County	0.7416	0.7416	0.7416
Total Capacity (PD-MGD)	**53.5**	**57.0**	**96.8**

Notes:

(5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

(6) Forsyth County is considering options to withdraw water from the Chattahoochee River.

Capital Projects

Lake Lanier may continue to be used as the main water source for Forsyth County and City of Cumming. Both WTPs should be expanded.

Apportionment of the capacity between Forsyth County and City of Cumming should be based on the needs and growth of their respective service areas.

If water storage is not granted by the USACE, then Forsyth County may:

1. Apply for a water withdrawal permit from the Chattahoochee River which may need the construction of a new WTP near the intake location.
2. Apply for a combination water withdrawal from the Chattahoochee River and Lake Lanier. May need the construction of a new WTP near the intake location.

Non-Capital Programs

The following non-capital programs are specific to Forsyth County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections and water supply agreements with Cherokee, Fulton, and Dawson Counties.

Forsyth County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Forsyth County Sewered Needs	17.8	16.2	29.9	39.1
To Fulton County	-2.00	-2.00	-2.00	-2.00
Total Projected Sewered Flow to Plants	**15.8**	**14.2**	**27.9**	**37.1**
Septic Flows (AAD-MGD)	4.9	4.9	4.9	4.9

Capital Projects

New treatment capacity will be provided by constructing the new Shakerag facility and two new facilities discharging to Lake Lanier and expanding the Fowler WRF. Apportionment of capacity between the Forsyth County and City of Cumming should be based on the needs and growth of their respective service areas. Allocation of proposed treatment capacity between Forsyth County and the City of Cumming will be agreed upon by both jurisdictions in accordance with the local wastewater master plan prior to requesting wasteload allocations or seeking permits. The local wastewater master plan will also include an analysis of the feasibility of constructing a combined facility between the City and County.

Basin Considerations

- The City of Cumming will construct a new AWRF that will discharge to Lake Lanier and return flow to the Lake.
- Forsyth County will construct a new AWRF that will discharge to Lake Lanier (Note 4).

Phasing Plan

Facilities (Notes 2,3 and 5)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin (Lake Lanier)			
Cumming Bethelview Road WPCP			8.0
Cumming Habersham WPCP (Note 6)	0.11	7.61	Decommission
Cumming Lake Lanier WRF (Note 4)			15.0
Forsyth Lake Lanier WRF (Note 4)		2.50	5.0
Forsyth Fowler WRF			15.00
Chattahoochee Basin (Downstream of Lake Lanier)			
Cumming Bethelview Road WPCP	8	8.0	
Forsyth Fowler WRF	1.75	15.31	8.55
Forsyth Shakerag WRF	1.25		
Forsyth James Creek WRF	1		
Forsyth Dick Creek WRF	0.76		Decommission
Forsyth Windermere Urban Reuse LAS (Seasonal Discharge)	0.55	Decommission	
Coosa Basin			
Forsyth Manor Water Reuse Facility	0.5	0.5	0.5
Forsyth Parkstone at the Bridges LAS	0.1	Decommission	
Total Capacity (MMF-MGD)	**14.02**	**33.9**	**52.1**
Sewered Needs (Note 8)		**15.8**	**37.1**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) The proposed Cumming and Forsyth AWRFs that will discharge to Lake Lanier may be built as separate facilities, or may be combined into one facilty.

5) The City and County may acquire private wastewater systems that result in minor changes and possible additions to discharge permits.

6) The City of Cumming is currently in negotiations to acquire the private Habersham facility.

7) Forsyth County is currently maintaining 0.5 mgd capacity in the Hamptons WRF, a private wastewater facility.

8) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Forsyth County. These programs are in addition to those that apply to all counties within the Metro Water District.

Make provisions to return reclaimed water to Lake Lanier, the source of the area's drinking water, by 2050 with the exception of the permitted capacity for the Forsyth Shakerag WRF which will continue to discharge to the Chattahoochee River.

Fulton County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Chattahoochee River	Atlanta/Fulton	90.0	105.0	140.0
	Atlanta	180.0	180.0	240.0
Big Creek	Roswell	2.8	3.8	5.0
Sweetwater Creek	East Point	11.5	11.6	15.5
Cedar Creek Reservoirs	Palmetto	0.45	0.45	0.6
Crystalline Rock Aquifer	College Park	0.167	0.1670	0.1670
Crystalline Rock Aquifer	Roswell	0.167	0.1670	0.1670
Total Withdrawal (MGD)		**285.1**	**301.2**	**401.4**

Notes:
(1) Monthly average day is 1.2 times annual average day.
(2) The Bear Creek Reservoir is currently planned by the proposed South Fulton Municipal Regional Water and Sewer Authority, with an estimated yield of 16.44 AAD-MGD. It would withdraw from the Chattahoochee River below Peachtree Creek. If constructed, it would supplement and offset water supply needs for Fulton County.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Fulton County Needs (Note 4)	248.5	266.2	298.2	363.9
Self Supplied	-1.21	-1.21	-1.01	-1.01
To Coweta County	5.00		10.0	
Total Projected Demand from Facilities (PD-MGD)	**252.3**	**270.0**	**307.2**	**372.9**
Treatment Capacity (Note 5)	309.2		401.4	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	155.3	166.4	186.4	227.4

(3) Peak day is 1.6 times annual average day.
(4) Demand and capacity are based on the combined total demand and capacity for Futon County as a whole. No attempt was made to analyze demand by individual service provider within Fulton County or to consider existing service areas and previous bonding commitments associated with the development of the existing infrastructure.
(5) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 6)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
Atlanta-Fulton County WTP	90.0	90.0	140.0
Atlanta Hemphill WTP	136.5	136.5	240.0
Atlanta Chattahoochee WTP	64.9	64.9	
Roswell Cecil Wood WTP (Note 7)	3.0	3.0	5.0
East Point WTP	13.9	13.9	15.5
Palmetto WTP	0.6	0.6	0.6
Groundwater			
Roswell	0.167	0.167	0.167
College Park	0.167	0.167	0.167
Total Capacity (PD-MGD)	**309.2**	**309.2**	**401.4**

Notes:
(6) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.
(7) City of Roswell WTP expansion includes additional yield from Big Creek, offline storage, and augmenting supply with groundwater.

Capital Projects

Future expansion should be concentrated at the Atlanta-Fulton County WTP because the intake is located at an upstream location and has an off-line reservoir that improves its reliability.
The City of Atlanta should provide 10 PDD-MGD of water to Coweta County.
The infrastructure to provide water to Fayette and Clayton Counties on a peak emergency basis should be maintained and expanded as necessary.

Non-Capital Programs

The following non-capital programs are specific to Fulton County. These programs are in addition to those that apply to all counties within the Metro Water District.
Maintain interconnections and water supply agreements with Clayton, Fayette, Coweta, DeKalb, Cobb, Forsyth, and Gwinnett Counties.
Evaluate required improvements to accommodate routine sale of 10 PDD-MGD to Coweta County.

Fulton County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Fulton County Sewered Needs	184.2	197.7	219.4	269.1
From DeKalb County (To City of Atlanta RMC)	40.7	41.4	49.6	43.0
From DeKalb County (To Fulton County)	0.8	0.9	1.0	0.9
From DeKalb County (To City of Atlanta South River)	6.0	6.1	7.4	6.4
From Cobb County (To Fulton County)	3.2	3.3	3.5	3.5
From Cherokee County (To Fulton County)	0.03	0.03	0.05	0.06
From City of Tyrone (Fayette County) to Fulton County	0.40	0.40	0.40	0.40
From Forsyth County	2.00	2.00	2.00	2.00
To Cobb County (From City of Atlanta)	-0.2	-0.2	-0.3	-0.3
To Cobb County (From Fulton County)	-7.4	-7.9	-8.8	-10.8
To Cobb County (From Fulton County- Big Creek)	-3.5	-3.5	-3.5	-3.5
To Clayton County (From College Park)	-0.05	-0.06	-0.06	-0.08
To Cherokee Co (Little River WRF)	-1.18	-1.26	-1.40	-1.72
Total Projected Sewered Flow to Plants	**225.0**	**238.8**	**269.3**	**308.9**
Septic Flows (AAD-MGD)	4.1	4.1	4.1	4.1

Capital Projects

- Existing arrangements to receive wastewater from and send wastewater to adjoining counties will be continued or amended as required.
- The City of Atlanta will use the current design capacity at its WRCs to treat wastewater flows. Wastewater may need to be pumped within the City to fully utilize each WRC. It will continue to receive wastewater for treatment from DeKalb County, Sandy Springs, and southern Fulton County.
- Industrial WWTPs may be converted into pretreatment plants, while others could be retained, expanded or modified. It may be necessary to add some small public, private, and/or public-agency WWTPs on an interim basis in fringe areas of the county, until growth fills in sufficiently to allow consolidation at the major facility.

Basin Considerations

Treated flow from WWTPs will be discharged to the Chattahoochee River. The Atlanta South River WRC will continue to pump its effluent from the Ocmulgee Basin to the Chattahoochee River. The City of Atlanta combined sewer overflow and treatment facilities will continue to discharge to the Chattahoochee or Ocmulgee Basin, according to the drainage areas they serve. The City of Tyrone (in Fayette County) will continue to pump effluent from teh Flint Basin to the Chattahoochee Basin.

Phasing Plan

Facilities (Notes 1, 2, 3, 4, 5, 6)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Coosa Basin			
Fulton Little River WRF (Note 6)	-	-	-
Chattahoochee Basin			
Fulton Big Creek WRF	24	82	103
Fulton Johns Creek Environmental Campus	15		
Fulton Camp Creek WRF	24		
Fulton Cauley Creek WRF (Note 7)	5		
Fulton Little Bear WRF	0.1	Decommission	
Atlanta RM Clayton WRC	100	188	220
Atlanta Utoy Creek WRC	40		
Atlanta South River WRC	48		
Flint Basin			
Fairburn LAS		1	1
Total Capacity (MMF-MGD)	**256.1**	**271.0**	**324.0**
Sewered Needs (Note 8)		**238.8**	**308.9**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) Some small public, private, and/or public-agency WWTPs may be converted into pretreatment plants or transfer pump stations, while others could be retained, expanded, or modified to meet local conditions.

5) Fulton County may remove any of the above facilities from service at its discretion provided Fulton County continues to provide the needed capacity for wastewater treatment.

6) Little River WRF treats flow generated in Fulton County and provides reuse water to Settingdown Creek golf course and discharges to the Little River in Cherokee County. The plant capacity of 2.6 mgd by 2025 and 4 mgd by 2050 are reflected in the Cherokee County facility phasing plan.

7) This facility is not currently operational but still retains a permit. This facility may be decommissioned in the planning period.

8) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Fulton County. These programs are in addition to those that apply to all counties within the Metro Water District.

Continue or amend agreements between county and cities.

Existing agreements to receive wastewater from and send wastewater to adjoining counties will be continued or amended.

Gwinnett County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Lake Lanier	Gwinnett	150.0	169.15	225.48
	Buford	2.0	3.62	4.83
Crystalline Rock Aquifer	Lawrenceville	2.0	2.00	2.00
Total Withdrawal (MGD)		**154.0**	**174.77**	**232.31**

Notes:

(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Gwinnett County Needs	154.0	161.9	211.3	232.3
Total Projected Demand from Facilities (PD-MGD)	**154.0**	**161.9**	**211.3**	**232.3**
Treatment Capacity (Note 4)	254.8		254.8	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	96.2	101.2	132.1	145.2

(3) Peak day is 1.6 times annual average day.

(4) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
Gwinnett Lanier WTP (Note 6)	150.0	150.0	150.0
Gwinnett Shoal Creek WTP (Note 6)	98.0	98.0	98.0
Buford WTP	2.5	4.83	4.83
Groundwater			
Lawrenceville	2.0	2.0	2.0
Total Capacity (PD-MGD)	**252.5**	**254.8**	**254.8**

Notes:

(5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Expand Buford WTP.

Non-Capital Programs

The following non-capital programs are specific to Gwinnett County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections with Hall, Fulton, DeKalb, Cobb, Forsyth, and Rockdale Counties.

Gwinnett County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Gwinnett County Needs	82.2	87.1	116.6	129.7
From DeKalb County	0.5	0.5	0.6	0.5
Total Projected Flow to Plants	**82.7**	**87.6**	**117.2**	**130.2**
Septic Flows (AAD-MGD)	10.4	10.4	10.4	10.4

Capital Projects

New treatment capacity will be provided by expanding the Gwinnett Crooked Creek and F. Wayne Hill WRFs and Buford Southside WPCP.

Basin Considerations

- Discharge of reclaimed water to the Yellow River will remain at 22 MGD as is presently permitted.
- Reclaimed water produced by Gwinnett F. Wayne Hill WRC (40 MGD) is returned to Lake Lanier per NPDES permit GA0038130, with 20 MGD permitted for discharge to the Chattahoochee River.
- The reclaimed water that will be produced by the expansion of the F. Wayne Hill WRC (20 MGD) will be discharged to Lake Lanier subject to the EPD approvals and permits.
- The additional 9 MGD at the Gwinnett Crooked Creek WRF is to be discharged into the Chattahoochee River.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016) Permitted Plant Capacity (MMF-MGD)	By 2025 Plant Capacity at End of Period (MMF-MGD)	By 2050 Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin (Lake Lanier)			
Gwinnett F. Wayne Hill WRC (Note 4)	40	60	60
Chattahoochee Basin (Downstream of Lake Lanier)			
Buford Southside WPCP	2	3.5	4.5
Buford Westside WPCP	0.25	0.25	Decommission
Gwinnett Crooked Creek WRC	16	16	25
Gwinnett F. Wayne Hill WRC (Note 4)	20	0	20
Ocmulgee Basin			
Gwinnett Yellow River WRF	22	22	22
Total Capacity (MMF-MGD)	**100.25**	**101.75**	**131.5**
Sewered Needs (Note 5)		**87.6**	**130.2**

Notes:

1) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

2) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) The current permitted capacity of the F. Wayne Hill WRC is 60 MGD with 40 MGD permitted to discharge to Lake Lanier and 20 MGD permitted to discharge to the Chattahoochee River as reflected in the "Existing" column. In 2025, the permitted capacity for F. Wayne Hill WRC is expected to remain 60 MGD but with the additional permitted flexibility to discharge up to 60 MGD to Lake Lanier and up to 20 MGD to the Chattahoochee River with a total discharge not to exceed 60 MGD. The increase in reclaimed water from the F. Wayne Hill WRC (20 MGD) discharged to Lake Lanier will be subject to the EPD approvals and permits. By 2050, the permitted capacity for F. Wayne Hill WRC will be increased to 80 MGD, with 60 MGD to Lake Lanier and 20 MGD to the Chattahoochee River.

5) The higher of Scenario 1 and Scenario 2 Sewered Flow Forecast is depicted.

Hall County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Lake Lanier	Gainesville	30.0	41.3	55.0
Cedar Creek Reservoir (North Oconee River)	Gainesville Hall	2.0	0.0	0.0
Crystalline Rock Aquifer	Flowery Branch	0.7	0.7	0.7
Crystalline Rock Aquifer	Lula	0.5	0.5	0.5
Total Withdrawal (MGD)		**33.2**	**42.5**	**56.2**

Notes:
(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 2) (PD–MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Hall County	40.0	36.3	54.3	49.7
Self Supplied	-2.4	-2.4	-1.9	-1.9
Total Projected Demand from Facilities (PD-MGD)	**37.6**	**33.9**	**52.4**	**47.8**
Treatment Capacity (Note 3)	41.2		56.2	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	23.5	21.2	32.8	29.9

(2) Peak day is 1.6 times annual average day.
(3) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 4)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin			
Gainesville Lakeside WTP (Note 5)	10.0	15.0	30.0
Gainesville Riverside WTP (Note 5)	25.0	25.0	25.0
Groundwater			
Flowery Branch	0.7	0.7	0.7
Lula	0.5	0.5	0.5
Total Capacity (PD-MGD)	**36.2**	**41.2**	**56.2**

Notes:
(4) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.
(5) Gainesville should be given the flexibility to upgrade either plant, based on feasibility, property, cost, and other factors.

Capital Projects

N/A

Non-Capital Programs

The following non-capital programs are specific to Hall County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections and water supply agreements with Gwinnett and White Counties.

Hall County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Hall County Sewered Needs	16.5	14.9	22.5	20.5
Total Projected Sewered Flows to Plants	**16.5**	**14.9**	**22.5**	**20.5**
Septic Flows (AAD-MGD)	4.6	4.2	5.8	5.3

Capital Projects

- Lula Pond WPCP has been decommissioned and Lula WRF commissioned to serve the needs of the Lula area.
- The capital improvements are summarized in the following phasing plan for Hall County.

Basin Considerations

The Hall County Spout Springs facility currently discharges to Lollis Creek in the Oconee Basin. Provisions will be made by 2035 to return this flow to Lake Lanier. All other reclaimed water will be produced and discharged to Lake Lanier or its tributaries.

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin (Lake Lanier)			
Flowery Branch WPCP	0.4	3	6
Gainesville Flat Creek WRF	12	17	25
Gainesville Linwood WRF	5		
Hall County Spout Springs (Note 4)			19
North Hall WWTP (Note 5)		0.5	
Lula WRF	0.375	1.9	3.8
Oconee Basin			
Hall County Spout Springs (Note 4)	0.75	4	
Total Capacity (MMF-MGD)	**18.5**	**26.4**	**53.8**
Sewered Needs (Note 6)		**16.5**	**22.5**

Notes:

1) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

2) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

3) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

4) The Hall County Spout Springs facility currently discharges to Lollis Creek in the Oconee Basin. Provisions will be made by 2035 to return this flow to Lake Lanier.

5) This new facility must be in conformance with HB 489 negotiations and local wastewater master plans; the discharge may be to (1) To Flat Creek in North Hall, above Lake Lanier, (2) To the City of Gainesville Flat Creek WRF, or (3) Other options that are defined by coordinated planning among Hall County, City of Gainesville, Flowery Branch, and Lula.

6) The higher of Scenario 1 and Scenario 2 Sewered Flow Forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Hall County. These programs are in addition to those that apply to all counties within the Metro Water District.

Make provisions to return reclaimed water to Lake Lanier or its tributaries.

Continue existing, and establish new agreements between the county and cities.

Henry County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Gardner Reservoir (Indian Creek)	Henry	8.0	18.0	24.0
Rowland Reservoir (Long Creek)	Henry	10.0		
Towaliga River Reservoirs	Henry	Fills Gardner and Rowland Reservoirs		
Tussahaw Creek Reservoir	Henry	32.0	30.0	40.0
Fargason Reservoir (Walnut Creek)	McDonough	2.4	2.4	3.2
Brown Branch	Locust Grove	0.3	0.3	0.5
Crystalline Rock Aquifer	Hampton	0.369	0.369	0.369
Crystalline Rock Aquifer	Locust Grove	1.0	1.0	1.0
Crystalline Rock Aquifer	McDonough	0.3	0.3	0.3
Crystalline Rock Aquifer	Stockbridge	0.52	0.52	0.52
Total Withdrawal (MGD)		**54.9**	**52.9**	**69.8**

Notes:
(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 2) (PD–MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Henry County Needs	47.3	44.9	63.0	66.5
Self Supplied	-1.5	-1.5	-1.3	-1.3
Total Projected Demand from Facilities (PD-MGD)	**45.8**	**43.4**	**61.7**	**65.2**
Treatment Capacity (Note 3)	47.0		69.8	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
	28.6	27.1	38.6	40.7

Notes:
(2) Peak day is 1.6 times annual average day.
(3) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 4)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Ocmulgee Basin			
Henry Towaliga River WTP	24.0	24.0	24.0
Henry Tussahaw WTP	13.0	18.0	40.0
McDonough WTP	2.4	2.4	3.2
Locust Grove WTP	0.5	0.5	0.5
Groundwater			
Hampton	0.369	0.369	0.369
Locust Grove	1.0	1.0	1.0
McDonough	0.3	0.3	0.3
Stockbridge	0.52	0.52	0.52
Total Capacity (PD-MGD)	**42.0**	**47.0**	**69.8**

Notes:
(4) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Expand the Henry County Tussahaw WTP to meet future demands.

Non-Capital Programs

The following non-capital programs are specific to Henry County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections and water supply agreements with DeKalb, Clayton, Newton, Butts, and Spalding Counties.

Reassess the safe yield of Towaliga, John Fargason, Gardner, and Long Branch Reservoirs using procedures outlined in the Statewide Water Plan.

Henry County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Henry County Sewered Needs	13.5	12.8	17.9	18.8
To DeKalb County	-0.10	-0.09	-0.13	-0.14
To Clayton County	-0.02	-0.02	-0.02	-0.02
Total Projected Sewered Flow to Plants	**13.4**	**12.7**	**17.7**	**18.7**
Septic Flows (AAD-MGD)	7.3	7.0	9.5	9.9

Capital Projects

Over the next 30 years, wastewater treatment will be consolidated. Several of the existing smaller facilities will be phased-out. Growth over the years will enlarge the service areas of the major facilities, leading to their expansion and the decommissioning of the existing smaller facilities.

Basin Considerations

- Henry Indian Creek LAS will become a direct discharge system by 2025. The Henry Bear Creek LAS will serve all unincorporated areas of the County in the Flint Basin. The Henry Walnut Creek WRF and Leguin Mill WPCP will discharge treated flow to surface water bodies in the Ocmulgee Basin.
- Provide LAS systems at two of the three WPCPs to be expanded if supported by consumptive use.

Phasing Plan

Facilities (Notes 1, 2, 3, 4)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Flint Basin			
Hampton WPCP	1.75	1.75	1.75
Henry Bear Creek WRF/LAS	1.25	1.25	1.25
Ocmulgee Basin			
Henry Leguin Mill WPCP (Note 5)		15.25	25
Henry Indian Creek LAS	1.5		
Henry Walnut Creek WRF	8		
Locust Grove Indian Creek WPCP	1.5	3	3
McDonough Walnut Creek WPCP	2	4	4
Stockbridge WPCP	1.5	2.25	2.25
Total Capacity (MMF-MGD)	**17.5**	**27.5**	**37.25**
Sewered Needs (Note 6)		**13.4**	**18.7**

Notes:

1) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

2) Some small public, private, and/or public-agency WWTPs may be converted into pretreatment plants or transfer pump stations, while others could be retained, expanded, or modified to meet local conditions.

3) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily flow (AAD).

4) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

5) Henry Leguin Mill WPCP is estimated to be constructed in the 2016-2025 timeframe with a capacity of 0.25 MGD.

6) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depicted.

Non-Capital Programs

The following non-capital programs are specific to Henry County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain multi-jurisdictional agreement with DeKalb County to receive wastewater from the northern corner of the county at the DeKalb Polebridge Creek WPCP.

Evaluate participation between City of McDonough, and other cities within Henry County for regional development of new WPCPs and conveyance projects.

Paulding County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Richland Creek Reservoir (Note 2)	Paulding	0.0	30.0	40.0
Crystalline Rock Aquifer	Dallas	0.202	0.202	0.2
Total Withdrawal (MGD)		**0.2**	**30.2**	**40.2**

Notes:

(1) Monthly average day is 1.2 times annual average day.

(2) The Richland Creek reservoir and pumping system will be capable of providing 35 mgd to meet the County's long term water supply needs. The intake in the Etowah River will have the capacity to pump at a peak rate of 47 mgd.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 3) (PD–MGD)		2050 Peak Day (Note 3) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Paulding County Needs	24.9	24.8	36.9	38.4
Self Supplied	-0.4	-0.4	-0.4	-0.4
From CCMWA	-8.0		0.0	
Total Projected Demand from Facilities (PD-MGD)	**16.5**	**16.3**	**36.5**	**38.0**
Treatment Capacity (Note 4)	18.2		40.2	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	10.3	10.2	22.8	23.8

(3) Peak day is 1.6 times annual average day.

(4) Scenario 2 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 5)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Coosa Basin			
Paulding County WTP	0.0	18.0	40.0
Groundwater			
Dallas	0.202	0.202	0.202
Total Capacity (PD-MGD)	**0.2**	**18.2**	**40.2**

Notes:

(5) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Paulding County will continue to rely on CCMWA for a portion of its water supply until 2032.

Richland Creek Reservoir project is currently under construction.

Paulding County is constructing a WTP at the reservoir site.

Non-Capital Programs

The following non-capital programs are specific to Paulding County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections and water supply agreements with Cobb County.

Evaluate required improvements to accommodate shift from CCMWA being sole source of supply to Richland Creek Reservoir as primary source of supply.

Paulding County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Paulding County Sewered Needs	6.8	6.7	12.8	13.7
From Cobb County	0.07	0.07	0.09	0.09
To Cobb County	-0.26	-0.25	-1.02	-1.12
Total Projected Sewered Flow to Plants	**6.6**	**6.6**	**11.9**	**12.7**
Septic Flows (AAD-MGD)	4.9	4.9	5.1	5.1

Capital Projects

Dallas North WPCP and Dallas West WPCP will be replaced with Dallas Pumpkinvine Creek WPCP in the 2016-2025 timeframe. Paulding Coppermine WRF and Pumpkinvine Creek WRF will also be expanded.

Basin Considerations

Treated flow from the Paulding Pumpkinvine Creek WRF and the new Dallas Pumpkinvine Creek WPCP will be discharged to surface water bodies in the Coosa Basin as allowed by EPD permitting. Paulding County will have to work with EPD to return flows to surface water bodies to meet the intent of the District Plan. Treated flow from the Paulding Coppermine WRF, Upper Sweetwater WRF, and flow discharged to Cobb County will be discharged to surface water in the Chattahoochee Basin as allowed by EPD permitting. More stringent phosphorus limits will likely be imposed as a result of limited assimilative capacity in the receiving waters.

Phasing Plan

Facilities (Notes 1, 2, 3, 4)	Existing (2016)	By 2025	By 2050
	Permitted Plant Capacity (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)	Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin			
Paulding Coppermine WRF	1	2.3	4.3
Paulding Coppermine LAS	1.033		
Paulding Upper Sweetwater WRF	0.3		
Coosa Basin			
Dallas Pumpkinvine Creek WPCP	1.5	3.0	4.5
Paulding Pumpkinvine Creek WRF	1.5	4.0	7.0
Paulding Pumpkinvine Creek LAS	1		
Total Capacity (MMF-MGD)	**7.7**	**7.8**	**14.3**
Sewered Needs (Note 5)		**6.6**	**12.7**

Notes:

1) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

2) Some small public, private, and/or public-agency WWTPs may be converted into pretreatment plants or transfer pump stations, while others could be retained, expanded, or modified to meet local conditions. It may be necessary to add some small public, private, and/or public-agency WWTPs on an interim basis in accordance with local wastewater management planning and ordinances, until growth fills in sufficiently to allow consolidation at the major facilities.

3) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

4) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

5) The higher of Scenario 1 and Scenario 2 sewered flow forecasts is depicted.

Non-Capital Programs

The following non-capital programs are specific to Paulding County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain multi-jurisdiction agreement with Cobb to receive wastewater generated in the Paulding Chattahoochee Basin.

Rockdale County - Water

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2050 Withdrawal (MGD)	
			Monthly (Note 1)	Peak Day
Big Haynes Creek (Randy Poynter Lake)	Rockdale	32.8	32.8	43.7
Total Withdrawal (MGD)		32.8	**32.8**	**43.7**

Notes:

(1) Monthly average day is 1.2 times annual average day.

Summary of Needs

Water Demands & Capacities	2025 Peak Day (Note 2) (PD–MGD)		2050 Peak Day (Note 2) (PD–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Rockdale County Needs	24.6	23.7	33.7	29.4
Self Supplied	-1.2	-1.2	-0.9	-0.9
Total Projected Demand from Facilities (PD-MGD)	**23.4**	**22.5**	**32.8**	**28.4**
Treatment Capacity (Note 3)	27.1		43.7	
Total Projected Demand from Facilities (AAD-MGD)	**Scenario 1 2025 (AAD-MGD)**	**Scenario 2 2025 (AAD-MGD)**	**Scenario 1 2050 (AAD-MGD)**	**Scenario 2 2050 (AAD-MGD)**
Notes:	14.6	14.1	20.5	17.8

(2) Peak day is 1.6 times annual average day.

(3) Scenario 1 is being used for the phasing plan below.

Phasing Plan

Facilities (Note 4)	Existing (2016) Permitted Plant Capacity (PD-MGD)	By 2025 Plant Capacity at End of Period (PD-MGD)	By 2050 Plant Capacity at End of Period (PD-MGD)
Ocmulgee Basin			
Rockdale WTP	22.1	27.1	43.7
Total Capacity (PD-MGD)	**22.1**	**27.1**	**43.7**

Notes:

(4) The schedule shown above is intended to be a general guideline to identify general expansion needs. Expansion capacity may be required sooner or later than indicated depending on local population and employment growth, water service extensions and other planning variables. Specific conditions for withdrawal and operation permits will be determined by Georgia EPD.

Capital Projects

Projections indicate the Randy Poynter Lake should provide adjusted supply through 2050.

Infrastructure should be kept to allow transfers from DeKalb and Gwinnett Counties to fill peak demands on an emergency basis.

Non-Capital Programs

The following non-capital programs are specific to Rockdale County. These programs are in addition to those that apply to all counties within the Metro Water District.

Maintain interconnections and water supply agreements with DeKalb, Gwinnett and Newton Counties.

Rockdale County - Wastewater

Summary of Needs

Wastewater Flows & Capacities	2025 Maximum Month Average Daily Flow (MMF–MGD)		2050 Maximum Month Average Daily Flow (MMF–MGD)	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2
Rockdale County Sewered Needs	9.4	9.1	12.5	10.9
Total Projected Sewered Flow to Plants	**9.4**	**9.1**	**12.5**	**10.9**
Septic Flows (AAD-MGD)	2.9	2.8	4.0	3.5

Capital Projects

WWTP.

- Pumping wastewater flow to DeKalb County for treatment at its Polebridge WPCP for a small portion of the Upper Yellow River basin will be discontinued in 2016.

Basin Considerations

Treated flow will be discharged to surface water bodies in the Ocmulgee Basin.

Phasing Plan

Facilities (Note 1, 2, 3)	Existing (2016) Permitted Plant Capacity (MMF-MGD)	By 2025 Plant Capacity at End of Period (MMF-MGD)	By 2050 Plant Capacity at End of Period (MMF-MGD)
Ocmulgee Basin			
Rockdale Quigg Branch WRF	8	15.5	22.5
Rockdale Almand Branch WWTP	1.25		
Rockdale Honey Creek WWTP	0.3		
Rockdale Scott Creek WWTP	0.22		
Rockdale Reuse Facility (Note 5)			
Rockdale New Snapping Shoals WWTP (Note 6)			
Rockdale Snapping Shoals WWTP (Note 6)	0.45	Decommission	
Total Capacity (MMF-MGD)	**10.22**	**15.5**	**22.5**
Sewered Needs (Note 7)		**9.4**	**12.5**

Notes:

1) Maximum Month Average Daily Flow (MMF) is 1.25 times the Average Annual Daily Flow (AAD).

2) The schedule shown is intended to be a general guideline to identify general capacity needs. While the expansion capacities are intended to be in operation before the end of the period shown, exact timing of expansions should be determined by local wastewater master plans.

3) Some small public, private, and/or public-agency WWTPs may be converted into pretreatment plants or transfer pump stations, while others could be retained, expanded, or modified to meet local conditions. It may be necessary to add some small public, private, and/or public-agency WWTPs on an interim basis in accordance with local wastewater management planning and ordinances, until growth fills in sufficiently to allow consolidation at the major facilities.

4) When applying to Georgia EPD for wasteload allocations or wastewater discharge permits, individual jurisdictions are responsible for documenting that the request is consistent with this plan and that the plant capacities specified above are not exceeded unless such exceedance has been approved through the Metro Water District's plan amendment.

5) The Rockdale Reuse Facility will be constructed in the 2025-2050 time frame and have a capacity of 4.0 MGD.

6) Rockdale Snapping Shoals WWTP will be replaced with New Snapping Shoals WWTP in the 2016-2025 timeframe at a 3 MGD capacity.

7) The higher of Scenario 1 and Scenario 2 sewered flow forecast is depcited.

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