APPENDIX B

County-Level Summaries



Appendix B outlines the anticipated schedule for expanding existing water and wastewater treatment plant capacities as well as building new water and wastewater treatment facilities in the Metropolitan North Georgia Water Planning District (District) to meet 2040 forecasted demands. Actual timing of new or expanded facilities or supplies will occur when local growth and planning indicate the need for additional capacity. Water supply and sewered wastewater needs for 2040 are provided for each county and are further discussed in Section 4. The information in this appendix was developed in consultation with the utilities and local governments based on their local water and wastewater planning efforts.

For the counties surrounding Lake Lanier, this appendix also includes requirements for high-quality effluent to be returned to Lake Lanier for the year 2050. This return flow is a critical piece of the District Plan and the drinking water supply plan for the State of Georgia in the Apalachicola, Chattahoochee and Flint (ACF) Basin. Planning considerations influenced the county-level summaries. For example, the return of high-quality effluent to Lake Lanier, Allatoona Lake and the Upper Flint River basin promotes long-term sustainability of water use and replenishes drinking water supplies, and the decommissioning of less efficient wastewater treatment facilities benefits water quality.

This appendix covers hydraulic capacity only; 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 water bodies.

Facility capacities listed in this appendix for each planning period are considered as maximums and not design flows or monthly averages as seen in EPD permits, and wastewater providers may plan within and up to that capacity. All new facilities and facility expansions identified in Appendix B are subject to applicable water quality permitting requirements and must provide a justification of need or socio-economic analysis to Georgia Environmental Protection Division (Georgia EPD) for review and must meet all state standards associated with the necessary permits. Inclusion within this Plan does not guarantee assimilative capacity or a permit.

The tables in this appendix do not include private, public-agency, or industrial facilities, which are permitted by Georgia EPD and are not part of the District's planning process. Local water and wastewater providers who elect to decommission these facilities and consolidate flows at another facility in the 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 2040 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 2022 Plan during the plan update process.

Plant Capacities

Plant capacities listed in this appendix were determined to meet or exceed the projected 2040 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 million gallon per day (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 needs 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 2022 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 timeframe for capital improvements described in this appendix is flexible unless otherwise noted. For example, delaying the date that a plant is decommissioned is generally acceptable. Expanding a plant in several 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 Action 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.

BARTOW COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Lewis Spring	Adairsville	4.1	4.5	6.0
Moss Spring	Emerson	0.5	1.5	1.5
Bolivar Springs	Bartow	0.8	1.2	1.2
Etowah River (Note 3)	Cartersville	23.0	37.5	50.0
Allatoona Lake				
Paleozoic Rock Aquifer	Bartow	0.0	3.0	4.5
Paleozoic Rock Aquifer	Emerson	0.0	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)		**28.8**	**49.1**	**64.6**

Notes:

1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) The intake in the Etowah River is only permitted to Cartersville. A future intake may have a joint permit with Bartow County.
4) Bartow County's water supply is currently served through a contract with the City of Cartersville. In the future, Bartow County may seek a permit from Georgia EPD to have a direct withdrawal from Allatoona Lake. If that water withdrawal is permitted and constructed, Bartow County would reduce or eliminate their purchased water from the City of Cartersville. In either scenario, total withdrawals from Allatoona Lake will not be affected. In the event that a withdrawal permit is obtained, the connection with the City of Cartersville will be maintained for emergency service.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 5)
Bartow County Needs	45.7
Self Supplied	-0.7
Total Projected Demand from Facilities (PD-MGD)	**44.9**
Treatment Capacity	64.6
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	28.5

Notes:

5) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.72 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 6)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Coosa Basin		
Adairsville WTP	4.0	6.0
Emerson WTP	0.5	1.5
Bartow County WTP	0.8	1.2
Cartersville Clarence B. Walker WTP	27.0	50.0
Groundwater		
Bartow County	0.0	4.5
Emerson	0.0	1.0
Kingston	0.15	0.15
White	0.2	0.2
Total Capacity (PD-MGD)	**32.7**	**64.6**

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.

Interconnections

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

BARTOW COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Bartow County Sewered Needs	16.8
To Cobb County	-0.09
Total Projected Sewered Flow to Plants	**16.7**

Septic Flows (AAD-MGD)	4.5

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Coosa Basin		
Adairsville North WPCP	2	*5*
Cartersville WPCP	15	25
Emerson Henry Jordan WWTP	0.45	1.5
Bartow Southeast WPCP	0.1	*12.1*
West Bartow WPCP (Note 4)		
Bartow Two Run WPCP	0.1	Decommission
Total Capacity (MMF-MGD)	**17.7**	**43.6**
Sewered Needs		**16.7**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

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

CHEROKEE COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Etowah River / Hollis Q. Lathem Reservoir (Note 3)	CCWSA	36.0	30.4	40.5
Etowah River at Riverbend		4.5		
Etowah River	Canton	18.7	7.5	10.0
Etowah River (Note 4)		Fills Hickory Log Creek Reservoir		
Crystalline Rock Aquifer	Ball Ground	0.25	0.25	0.25
Crystalline Rock Aquifer	Woodstock	0.71	0.71	0.71
Crystalline Rock Aquifer	Lake Arrowhead Utility	0.5	0.5	0.5
Total Withdrawal (MGD)		**60.7**	**39.3**	**52.0**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) Hollis Q. Lathem Reservoir provides stream flow augmentation during low-flow conditions on the Etowah River.
4) Hickory Log Creek Reservoir is a pump-storage reservoir for Canton and Cobb County-Marietta Water Authority (CCMWA). The intake on the Etowah River is permitted to pump at a peak day rate of 39 MGD. The Hickory Log Creek Reservoir provides stream flow augmentation for Canton during low-flow conditions on the Etowah River.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 5)
Cherokee County Needs	44.9
From CCMWA (to City of Woodstock)	-2.38
To Pickens/Dawson Counties (Note 6)	1.60
Self Supplied	-1.46
Total Projected Demand from Facilities (PD-MGD)	**42.7**
Treatment Capacity	52.0
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	28.1

Notes:
5) District-wide planning peak day factor is 1.6 times annual average day. For local system planning, the highest peak day factor was 1.57 from 2011 to 2019 in this County.
6) Cherokee County Water and Sewerage Authority (CCWSA) sells water to outside-the-District counties of Pickens and Dawson Counties. Such sales are not precluded by the Metro Water District plan.

Phasing Plan

Facilities (Note 7)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Coosa Basin		
Canton WTP	5.45	10.0
CCWSA Etowah River WTP	38.0	40.5
Groundwater		
Ball Ground	0.25	0.25
Woodstock	0.71	0.71
Lake Arrowhead Utility	0.5	0.5
Total Capacity (PD-MGD)	**44.9**	**52.0**

Notes:
7) 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.

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

CHEROKEE COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Cherokee County Sewered Needs	19.8
To Cobb County	-0.57
To Fulton County	-0.04
Total Projected Sewered Flow to Plants	**19.2**

Septic Flows (AAD-MGD)	6.1

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Coosa Basin		
Woodstock Rubes Creek WPCP	2.5	2.5
CCWSA Fitzgerald Creek WPCP	6	42.35
CCWSA Rose Creek WPCP	6	
CCWSA Northwest WPCP		
CCWSA River Bend Environmental Complex (Note 4)	1	
Canton WPCP	4	*7*
Total Capacity (MMF-MGD)	**19.5**	**51.9**
Sewered Needs		**19.2**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

4) EPD will permit CCWSA to reposition wasteload capacity from the CCWSA Riverbend Complex to the CCWSA Northwest WPCP that is a planned facility which will discharge highly treated effluent into the Etowah River Basin through a separate outfall.

CLAYTON COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Flint River	CCWA	Fills Smith/Shoal Creek Reservoir	36.8	49.0
Smith/Shoal Creek Reservoir		17.0		
Hooper Reservoir (Little Cotton Indian Creek)		20.0		
Blalock Reservoir (Pates Creek)		10.0		
Crystalline Rock Aquifer		0.4	0.4	0.4
Total Withdrawal (MGD)		**47.4**	**37.2**	**49.4**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 3)
Clayton County Needs	52.0
Total Projected Demand from Facilities (PD-MGD)	**52.0**
Treatment Capacity	49.4
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	32.5

Notes:
3) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.26 from 2011 to 2019 in this county.

Phasing Plan

Facilities (Note 4)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Flint Basin		
Clayton J.W. Smith WPP	12.0	0.0
Ocmulgee Basin		
Clayton W.J. Hooper WPP	20.0	22.0
Flint and Ocmulgee Basin		
Clayton Terry R. Hicks WPP	10.0	27.0
Groundwater		
Clayton County	0.4	0.4
Total Capacity (PD-MGD)	**42.4**	**49.4**

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.

Interconnections

Infrastructure should be kept in place to allow transfers from the City of Atlanta to meet peak demands on an emergency basis as needed. Maintain existing interconnections and water supply agreements with the Cities of Atlanta and College Park, DeKalb, Fayette, and Henry Counties.

CLAYTON COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Clayton County Sewered Needs	34.3
From Fulton County	4.00
From DeKalb County	0.13
From Henry County	0.10
To DeKalb County (Note 4)	-3.00
Total Projected Sewered Flow to Plants	**35.5**

Septic Flows (AAD-MGD)	2.2

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Flint Basin		
Clayton W.B. Casey WRF	6.6	*14.6*
Clayton Shoal Creek WRF (Note 5)	4.4	Decommission
Ocmulgee Basin		
Clayton W.B. Casey WRF	17.4	27.4
Clayton Northeast WRF	6.0	
Total Capacity (MMF-MGD)	**34.4**	**42.0**
Sewered Needs (Note 4)		**35.5**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

4) Existing agreements to discharge wastewater to DeKalb Pole Bridge AWTP will remain in place until a determination is made as to exact timing to reduce or eliminate those discharges.

5) The Shoal Creek WRF will be decommissioned and will no longer discharge to the Flint River Basin via the wetlands treatment system.

COBB COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Etowah River (Note 3)	CCMWA	Fills Hickory Log Creek Reservoir	78.0	86.0
Allatoona Lake (Note 4)		78.0		
Chattahoochee River		87.0	87.0	87.0
Total Withdrawal (MGD)		**165.0**	**165.0**	**173.0**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) Hickory Log Creek Reservoir is a pump-storage reservoir for Cobb County-Marietta Water Authority (CCMWA) and Canton. The intake on the Etowah River is permitted to pump at a peak day rate of 39 MGD. Water released from Hickory Log Creek Reservoir for CCMWA will contribute to the storage allocation use and be a part of the withdrawal quantity for the Wyckoff WTP.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Cobb County Needs	149.3
To Paulding County	0.00
To Cherokee County (City of Woodstock)	2.38
To Fulton County	0.07
Total Projected Demand from Facilities (PD-MGD)	**151.8**
Treatment Capacity	173.0
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	93.3

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.38 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 5)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
CCMWA Quarles WTP	87.0	87.0
Coosa Basin		
CCMWA Wyckoff WTP	86.0	86.0
Hickory Log Creek Reservoir WTP	0.0	0.0
Total Capacity (PD-MGD)	**173.0**	**173.0**

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.

Interconnections

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

COBB COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Cobb County Sewered Needs	103.7
From Bartow County	0.09
From Cherokee County	0.57
From Douglas County	3.01
From Fulton County	12.2
From Paulding County	4.42
To Douglas County	-0.09
To Fulton County	-4.64
To Paulding County	-0.48
Total Projected Sewered Flow to Plants	**118.8**

Septic Flows (AAD-MGD)	4.9

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Coosa Basin		
Cobb Noonday Creek WRF	20	32
Cobb Northwest Cobb WRF	12	
Chattahoochee Basin		
Cobb RL Sutton WRF	50	*100*
Cobb South Cobb WRF	40	
Total Capacity (MMF-MGD)	**122**	**132.0**
Sewered Needs		**118.8**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

COWETA COUNTY - WATER (Page 1 of 2)

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	Planned 2040 Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
B.T. Brown Reservoir (Notes 3, 4, 5)	CCWSA	6.7	22.1	26.9
Chattahoochee River (Notes 3, 4, 5, 6)		Fills B.T. Brown Reservoir		
J.T. Haynes Reservoir	Newnan	14.0	14.0	18.6
Sandy Brown Creek		Fill J.T. Haynes Reservoir only		
White Oak Creek (Flint River)				
Line Creek (Flint River)				
Hutchins Lake (Keg Creek)	Senoia	0.3	0.34	0.45
Line Creek (Flint River)		0	1.125	1.5
Crystalline Rock Aquifer (Note 13)		0.119	0.119	0.119
Crystalline Rock Aquifer	CCWSA	0.504	0.504	0.504
Total Withdrawal (MGD)		**21.6**	**38.2**	**48.1**

Notes:

1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) The B.T. Brown Reservoir and pumping system will be capable of providing 26.9 MGD at 2040. The water intake pump station and raw water transmission main from the Chattahoochee River will have the capacity to pump at a peak rate of 21.3 MGD at 2040. The buildout capacity will be constructed in phases as demands increase.
4) The withdrawal from the Chattahoochee River is to be pumped into B.T. Brown Reservoir for storage prior to treatment. The withdrawal from B.T. Brown Reservoir is taking water previously removed from the Chattahoochee River for treatment. As water demand continues to increase, CCWSA may seek additional storage to its reservoir system.
5) The withdrawals from the Chattahoochee River and B.T. Brown Reservoir are to serve as a replacement for an existing water source from a small tributary of the Chattahoochee River, which has proven its inability as a resilient water source in most recent droughts of record. This proposed Chattahoochee River withdrawal will allow the Authority to supply demands previously served by outside water providers and increase the resilience of its water supply.
6) The Chattahoochee River pump rate of 21.3 MGD for 2040 is required to help fill the B.T. Brown Reservoir. This withdrawal is not additive and is thus not included in the Total Withdrawal for Coweta County.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 7)
Coweta County Needs	33.1
Self Supplied	-1.6
From Fulton County (City of Atlanta) (Note 8)	0.0
From Griffin's Still Branch Reservoir (Note 8)	-5.0
Total Projected Demand from Facilities (PD-MGD)	**26.4**
Treatment Capacity	48.1
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	20.7

Notes:

7) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.56 from 2011 to 2019 in this County.
8) 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. In the event that a withdrawal permit is obtained, the connection with the City of Atlanta will be maintained for emergency service.
9) 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 (2012) from the City of Griffin which increases to 5.0 PDD-MGD on July 1, 2022.

COWETA COUNTY - WATER (Page 2 of 2)

Phasing Plan

Facilities (Note 10)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
CCWSA B.T. Brown WTP (Note 11)	6.4	26.9
Chattahoochee/Flint Basins		
Newnan Hershall Norred WTP	14.0	18.6
Flint Basin		
Senoia WTP (Note 12)	0.45	0.45
Proposed Senoia WTP #2	0	1.5
Groundwater		
Senoia (Note 13)	0.119	0.119
CCWSA Murphy Well	0.504	0.504
Total Capacity (PD-MGD)	**21.5**	**48.1**

Notes:

10) 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.

11) The B.T. Brown WTP should be expanded to 26.9 PD-MGD by 2040 to fully utilize the yield of B.T. Brown Reservoir.

12) The City of Senoia has a withdrawal permit with a monthly limit of 0.3 MGD from Hutchins Lake and a WTP with a total capacity of 0.45 PD-MGD. The City will need to increase their water withdrawal permit in order to fully utilize the plant capacity.

13) Groundwater wells will remain in service as long as practicable.

Interconnections

Maintain existing interconnections and water supply agreements with City of Atlanta, City of Griffin and additional interconnections as necessary.

COWETA COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Coweta County Sewered Needs	11.6
Total Projected Sewered Flow to Plants	**11.6**

Septic Flows (AAD-MGD)	6.4

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Chattahoochee Basin		
Coweta Arnco WPCP	0.1	*5*
Coweta Arnall/Sargent WPCP	0.06	
Coweta Decentralized Systems		
Coweta Bridgeport WPCP		
Grantville Colley Street LAS	0.15	*0.78*
Grantville Ponds	0.12	
Grantville Yellow Jacket Creek WPCP		
Grantville New River WPCP		
Newnan Mineral Springs WPCP	1.2	*6.5*
Newnan Mineral Springs LAS		
Newnan Wahoo Creek WPCP	3	
Flint Basin		
Senoia LAS (Note 5)	0.49	3
Senoia WPCP		
Coweta Shenandoah WPCP	2	*9*
Coweta 12 Parks WPCP (Note 4)		
Newnan Flint River Basin WPCP		*3*
Total Capacity (MMF-MGD)	**7.1**	**27.3**
Sewered Needs		**11.6**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) Coweta 12 Parks WPCP is expected to have an initial capacity of 0.15 MGD to LAS. Additional capacity will be stream discharged once a point source discharge is determined.
5) Senoia may decommission the current LAS and send flow to future facilities.

DEKALB COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Chattahoochee River	DeKalb	140.0	120.0	160.0
Total Withdrawal (MGD)		**140.0**	**120.0**	**160.0**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 3)
DeKalb County Needs	151.0
Total Projected Demand from Facilities (PD-MGD)	**151.0**
Treatment Capacity	160.0
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	94.4

Notes:
3) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the 2020-2070 Dekalb County Water Master Plan contains data showing peaking factors that range from 1.38 to 1.42.

Phasing Plan

Facilities (Note 4)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
DeKalb Scott Candler WTP	128.0	160.0
Total Capacity (PD-MGD)	**128.0**	**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.

Interconnections

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

DEKALB COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
DeKalb County Sewered Needs	106.5
To Fulton (Fulton County + City of Atlanta)	-52.7
To Clayton County	-0.13
To Gwinnett County	-0.10
From Clayton County	3.0
From Fulton County	1.6
From Rockdale County	0.2
From Henry County	0.5
Total Projected Sewered Flow to Plants	**58.9**

Septic Flows (AAD-MGD)	3.0

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Ocmulgee Basin		
DeKalb Pole Bridge AWTF (Note 4)	20	56
DeKalb Snapfinger AWTF (Note 4)	36	
Chattahoochee Basin		
DeKalb Pole Bridge AWTF (Note 4)		*18*
DeKalb Snapfinger AWTF (Note 4)		
Total Capacity (MMF-MGD)	**56**	**74**
Sewered Needs		**58.9**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) The treated flow from DeKalb Pole Bridge and Snapfinger AWTFs will be discharged to two rivers; combined plant discharges from the Snapfinger AWTF and the Pole Bridge AWTF 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.

DOUGLAS COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Dog River Reservoir	DDCWSA	23.0	23.0	30.6
Bear Creek Reservoir (Note 3)				
Lake Paradise/Cowens Lake	Villa Rica	1.5	2.4	3.2
Total Withdrawal (MGD)		**24.5**	**25.4**	**33.8**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) Bear Creek Reservoir is a supplemental source to Dog River Reservoir with a monthly withdrawal permit limit of 6.0 MGD.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Douglas County Needs	27.9
Total Projected Demand from Facilities (PD-MGD)	**27.9**
Treatment Capacity	33.8
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	17.4

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.46 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 5)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
DDCWSA Bear Creek WTP	23.9	30.6
Tallapoosa Basin		
Villa Rica Franklin Smith WTP (Note 6)	1.5	3.2
Total Capacity (PD-MGD)	**25.4**	**33.8**

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) The Villa Rica Franklin Smith WTP also provides water to areas outside Douglas County.

Interconnections

Maintain interconnections and water supply agreements with CCMWA, Cobb County Water System and Carroll County Water Authority.

DOUGLAS COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Douglas County Sewered Needs	12.3
From Cobb County	0.09
To Cobb County	-3.01
Total Projected Sewered Flow to Plants	**9.4**

Septic Flows (AAD-MGD)	3.1

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Chattahoochee Basin		
DDCWSA Rebel Trails WPCP	0.04	Decommission
DDCWSA South Central UWRF	0.5	*17.5*
DDCWSA South Central WPCP	6	
DDCWSA Northside WPCP	0.6	
DDCWSA Sweetwater Creek WPCP	3	
Villa Rica North Sweetwater WPCP	0.52	1.0
Tallapoosa Basin		
Villa Rica West WPCP (Note 4)	2.15	2.75
Total Capacity (MMF-MGD)	**12.8**	**21.3**
Sewered Needs		**9.4**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) Villa Rica West WPCP is located within Carroll County; a portion of this facility flow was estimated to be generated in Douglas County.

FAYETTE COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Flint River (Fills Lake Horton, Note 3)	Fayette	16.0	20.3	27.0
Lake Horton		14.0		
Lake Kedron		4.0		
Lake Peachtree		0.5		
Lake McIntosh		12.5		
Crystalline Rock Aquifer	Fayetteville	1.3	2.0	2.0
Total Withdrawal (MGD)		**32.3**	**22.3**	**29.0**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) The Flint River withdrawal fills Lake Horton and is not included in the Total Withdrawal.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Fayette County Needs	26.3
Self Supplied	-2.1
Total Projected Demand from Facilities (PD-MGD)	**24.2**
Treatment Capacity	29.0
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	16.4

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.59 from 2015 to 2019 in this County.

Phasing Plan

Facilities (Note 5)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Flint Basin		
Fayette County Crosstown WTP	13.5	27.0
South Fayette WTP	9.2	
Groundwater		
Fayetteville	1.3	2.0
Total Capacity (PD-MGD)	**24.0**	**29.0**

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.

Interconnections
Maintain interconnections and water supply agreements with City of Atlanta and Clayton County.

FAYETTE COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Fayette County Sewered Needs	9.3
City of Tyrone to Fulton County	-0.4
Total Projected Sewered Flow to Plants	**8.9**

Septic Flows (AAD-MGD)	4.3

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Flint Basin		
Peachtree City Larry B. Turner WRF (Note 4)	2.0	6.0
Peachtree City Rockaway WRF (Note 5)	4.0	
Fayetteville Whitewater Creek WPCP	5.0	5.0
Total Capacity (MMF-MGD)	**11.0**	**11.0**
Sewered Needs		**8.9**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) The Peachtree City Larry B. Turner WPCP is permitted for a discharge of 1.6 MGD from May-October, and 2.0 MGD from November-April. The facility is also permitted for 1.1 MGD to reuse.
5) The Peachtree City Rockaway WPCP is also permitted for 1.0 MMF-MGD of discharge to LAS.

FORSYTH COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Lake Lanier (Note 3)	Cumming	23.82	27.0	36.0
	Forsyth	38.64	36.0	48.0
Crystalline Rock Aquifer		0.7416	0.7416	0.7416
Total Withdrawal (MGD)		**63.2**	**63.8**	**84.7**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) The City of Cumming and Forsyth County will continue to operate with a single shared raw water intake structure in Lake Lanier, until a new raw water intake is constructed for the County's withdrawal in Lake Lanier and permitted accordingly. Lake Lanier may continue to be used as the main water source for Forsyth County and City of Cumming. Apportionment of the capacity between Forsyth County and City of Cumming should be based on the needs and growth of their respective service areas.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Forsyth County Needs	66.3
To Dawson County	0.008
Self Supplied	-0.8
Total Projected Demand from Facilities (PD-MGD)	**65.4**
Treatment Capacity	84.7
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	41.4

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.95 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 5)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
Cumming WTP	24.1	36.0
Forsyth County WTP	33.7	48.0
Groundwater		
Forsyth County	0.7416	0.7416
Total Capacity (PD-MGD)	**58.6**	**84.7**

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.

Interconnections

Maintain interconnections and water supply agreements with Cherokee County, Fulton County, Dawson County and additional interconnections as necessary.

FORSYTH COUNTY - WASTEWATER (Page 1 of 2)

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)	2050 Maximum Month (Note 4) Average Daily Flow (MMF–MGD)
Forsyth County Sewered Needs	24.1	33.1
To Fulton County	-0.5	-0.5
Total Projected Sewered Flow to Plants	**23.6**	**32.6**

Septic Flows (AAD-MGD)	5.5	6

Phasing Plan

Planned Treatment Plant Capacity

Facilities (Notes 1, 2, 3, 6, and 7)	Existing (2021)	By 2040	By 2050 (Note 4)
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Cumming Habersham WPCP	0.11	12.61	Decommission
Cumming Bethelview Road WPCP	8		15.11
Cumming Lake Lanier WRF (Note 5)			
Forsyth Lake Lanier WRF (Note 5)		*2.5*	*5*
Forsyth Fowler WRF	5	*12.5*	*15*
Forsyth Shakerag WRF	1.25	*2.5*	*5*
Forsyth James Creek WRF	2.55	2.55	2.55
Forsyth Dick Creek WRF	0.76	Decommission	
Forsyth Manor Water Reuse Facility	0.5	0.5	0.5
Forsyth Parkstone at the Bridges LAS	0.1	Decommission	
Settendown PUD Hampton Ck WRF (Note 8)	0.5	0.5	0.5
Total Treatment Capacity (MMF-MGD)	**18.8**	**33.7**	**43.7**
Sewered Needs		**15**	**32.6**

Planned Permitted Discharge by Basin

Facilities (Notes 1, 2, 3, 6, and 7)	Existing (2021)	By 2040	By 2050 (Note 4)
	Permitted Discharge (MMF-MGD)	Planned Permitted Discharge (MMF-MGD)	Planned Permitted Discharge (MMF-MGD)
Chattahoochee Basin (Lake Lanier)			
Cumming Habersham WPCP	0.11	12.61	Decommission
Cumming Bethelview Road WPCP (Notes 4, 9)			15.11
Cumming Lake Lanier WRF (Note 5, 9)			
Forsyth Lake Lanier WRF (Note 5, 9)		*12.5*	*20*
Forsyth Fowler WRF (Note 5, 9, 11)			
Chattahoochee Basin (Downstream of Lake Lanier)			
Cumming Bethelview Road WPCP (Note 10)	8	8	8
Forsyth Fowler WRF - Big Creek (Note 11)	3.13	*5*	*5*
Forsyth Fowler LAS	1.28	*14.59*	Decommission
Forsyth Fowler WRF (Note 11)	4.75		8.55
Forsyth Shakerag WRF	1.25		
Forsyth James Creek WRF	2.55		
Forsyth Dick Creek WRF	0.76	Decommission	
Coosa Basin			
Forsyth Manor Water Reuse Facility (Reuse/Nov-April Discharge)	0.5/0.625	0.5	0.5
Forsyth Parkstone at the Bridges LAS	0.1	Decommission	
Settendown PUD Hampton Ck WRF (Note 8)	0.5	0.5	0.5
Total Permitted Discharge (MMF-MGD)	**22.9**	**53.7**	**57.7**

Notes:

1) Max Month 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.

FORSYTH COUNTY - WASTEWATER (Page 2 of 2)

3) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

4) The 2050 column is provided for Forsyth, Gwinnett, and Hall Counties in order to demonstrate planned infrastructure improvements for return flows to Lake Lanier for the counties that border the lake.

5) New treatment capacity will be provided by expanding existing facilities and/or constructing new individual or joint facilities. Apportionment of capacity between Forsyth County and the 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 local wastewater master plans and approved Service Delivery Strategy prior to requesting wasteload allocations or seeking permits.

6) The schedule shown is intended to be a general guideline to identify general capacity needs. Other than Lake Lanier returns as noted below, 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.

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

8) Forsyth County is currently maintaining **0.50** mgd capacity in the Settendown PUD Hampton WRF, a private wastewater facility.

9) The construction of Lake Lanier discharge facilities is a critical piece of the District Plan and the drinking water supply plan for the State of Georgia in the ACF basin. Therefore, both Forsyth and Cumming shall construct the infrastructure to return flows to the Lake. These can be a combination of new facilities, joint facilities, or treated discharges piped to Lake Lanier from existing wastewater treatment facilities. To be in compliance with the District Plan, both Forsyth and Cumming must have capabilities to return flows to Lake Lanier by 2040 (whether constructed jointly or individually). In total, Forsyth and Cumming shall construct facilities with the capacity to return at least 22.4 mgd AAD in reclaimed water to Lake Lanier by 2050. This requirement is based on the assumption that county-wide water demands meet or exceed 59 mgd AAD. If water demands in future revisions to the District Plan are lower than 59 mgd, then the total return flow capacity requirement to return 22.4 mgd would also be proportionally lower.

10) Cumming Bethelview WPCP permit in Big Creek may be maintained for growth in Cumming beyond the loading included in the TMDL. The Bethelview plant may eventually pump treated wastewater back to Lake Lanier if future TMDL allows it or in conjunction with other discharges to the lake. The Planned Permitted Discharge by Basin table represents Bethelview WPCP discharge flows to multiple locations that when combined may be greater than the treatment capacity of the facility itself.

11) The Forsyth Fowler WRF will discharge to the Chattahoochee Basin (downstream of Lake Lanier) until requiring expansion beyond the 7.5 mgd permitted capacity. The Fowler WRF may maintain a discharge of 5.0 MGD MMF to Big Creek for redundancy and resiliency for the year 2050. Upon requesting a permit capacity beyond 7.5 MGD, an additional new effluent discharge location for the Fowler WRF at Lake Lanier will be implemented. Additionally, the Fowler WRF will maintain its ability to send flow to the Chattahoochee River in order to maintain pressure in the reuse system. The Planned Permitted Discharge by Basin table represents Fowler WRF discharge flows to multiple locations that when combined may be greater than the treatment capacity of the facility itself.

FULTON COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Chattahoochee River	Atlanta/Fulton	90.0	105.0	140.0
	Atlanta	135.3	180.0	240.0
	MCRWSA (Note 3)	8.55	9.0	12.0
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	0.6	0.6	0.6
Crystalline Rock Aquifer	Roswell	0.167	0.167	0.167
Total Withdrawal (MGD)		**294.1**	**310.7**	**413.9**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) The Middle Chattahoochee Regional Water & Sewer Authority (MCRWSA) includes the Cities of Fairburn, Palmetto, and Union City.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Fulton County Needs (Note 5)	307.2
Self Supplied	-0.97
From CCMWA	-0.07
Total Projected Demand from Facilities (PD-MGD)	**306.2**
Treatment Capacity	413.9
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	192.0

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.40 from 2011 to 2019 in this County.
5) 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.

Phasing Plan

Facilities (Note 6)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
Atlanta-Fulton County WTP	90.0	140.0
Atlanta Hemphill WTP	136.5	240.0
Atlanta Chattahoochee WTP	64.9	
MCRWSA WTP	0.0	12.0
Roswell WTP (Note 7)	3.3	5.0
East Point WTP	13.9	15.5
Palmetto WTP	0.6	0.6
Groundwater		
Roswell Leonard GFP	0.167	0.167
College Park	0.60	0.60
Total Capacity (PD-MGD)	**310.0**	**413.9**

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
7) City of Roswell WTP expansion includes additional yield from Big Creek, offline storage, and augmenting supply with groundwater.

Interconnections

Maintain interconnections and water supply agreements with Clayton, Fayette, Coweta, DeKalb, Cobb, Forsyth, and Gwinnett Counties.
The infrastructure to provide water to Fayette and Clayton Counties on a peak emergency basis should be maintained and expanded as necessary.

FULTON COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Fulton County Sewered Needs	225.5
From DeKalb County (To City of Atlanta RMC & South River)	51.2
From DeKalb County (To Fulton County)	1.5
From Cobb County (To Fulton County)	4.64
From Cherokee County (To Fulton County)	0.04
From Fayette (Tyrone) to Fulton	0.4
From Forsyth County	0.5
To Cobb County (From Fulton and Atlanta)	-12.2
To Clayton County (From College Park)	-4.0
To DeKalb County	-1.6
Total Projected Sewered Flow to Plants	**266.0**

Septic Flows (AAD-MGD)	4.8

Phasing Plan

Facilities (Notes 1, 2, 3, 4)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Coosa Basin		
Fulton Little River WRF	2.6	2.6
Chattahoochee Basin		
Fulton Big Creek WRF	24	*98*
Fulton Johns Creek Environmental Campus	15	
Fulton Camp Creek WRF	24	
Fulton Little Bear WRF	0.1	Decommission
Atlanta RM Clayton WRC	100	188
Atlanta Utoy Creek WRC	40	
Atlanta South River WRC	48	
Flint Basin		
Fairburn LAS		*1*
Total Capacity (MMF-MGD)	**253.7**	**289.6**
Sewered Needs		**266.0**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

4) 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.

GWINNETT COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Lake Lanier	Gwinnett	150.0	142.2	189.6
	Buford	2.0	3.8	5.0
Raw Water Storage Pond (Note 3)	Auburn	0.0	1.91	2.54
Total Withdrawal (MGD)		**152.0**	**147.9**	**197.2**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.

3) The Auburn Raw Water Storage Pond and pumping system will be capable of providing 1.59 MGD annual average day flow to meet the City's long term water supply needs. Two intakes on Rock Creek (tributary to Mulberry River) will have the transfer capacity of 15.6 MGD peak day to the Raw Water Storage Pond. Only the City of Auburn population within the boundary within Gwinnett County is included within the Gwinnett County Needs listed below. Most of the 1.59 MGD is produced to serve areas outside of the District.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Gwinnett County Needs	194.6
Total Projected Demand from Facilities (PD-MGD)	**194.6**
Treatment Capacity	255.1
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	121.6

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.58 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 5)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
Gwinnett Lanier WTP	150.0	150.0
Gwinnett Shoal Creek WTP	98.0	98.0
Buford WTP	2.5	5.0
Oconee Basin		
Auburn WTP	0.0	2.07
Total Capacity (PD-MGD)	**250.5**	**255.1**

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.

Interconnections

Maintain interconnections and water supply agreements with Hall, Fulton, DeKalb, Cobb, Forsyth, and Rockdale Counties and the City of Auburn.

GWINNETT COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)	2050 Maximum Month (Note 4,7) Average Daily Flow (MMF–MGD)
Gwinnett County Sewered Needs	105.3	122.6
From DeKalb County	0.1	0.1
Total Projected Flow to Plants	**105.4**	**122.7**
Septic Flows (AAD-MGD) (Note 7)	11.3	7.9

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021)	By 2040	By 2050 (Note 4)
	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)			
Gwinnett F. Wayne Hill WRC (Note 5)	50 (maximum 60 MGD total discharge Lake Lanier + Chattahoochee)	60	60
Chattahoochee Basin (Downstream of Lake Lanier)			
Buford Southside WPCP	2	*3.5*	*4.5*
Buford Westside WPCP	0.25	Decommission	
Gwinnett F. Wayne Hill WRC (Note 6)	20 (maximum 60 MGD total discharge Lake Lanier + Chattahoochee)	*45*	*56*
Gwinnett Crooked Creek WRF	16		
Gwinnett New WRF (Note 6)			
Ocmulgee Basin			
Gwinnett Yellow River WRF	22	22	22 / *27* (Note 7)
Total Capacity (MMF-MGD)	**100.25**	**130.5**	**147.5**
Sewered Needs		**105.4**	**122.7**

Notes:

1) Max Month Flow (MMF) is 1.25 times the Average Annual Daily Flow (AADF).

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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

4) The 2050 column is provided for Forsyth, Gwinnett, and Hall Counties in order to demonstrate planned infrastructure improvements for return flows to Lake Lanier for the counties that border the lake.

5) The implementation of Lake Lanier discharge facilities is a critical piece of the District Plan and the drinking water supply plan for the State of Georgia in the ACF basin. Therefore, by 2050, Gwinnett County shall have facilities with the capacity to discharge 60 MGD on an*average annual basis* to Lake Lanier subject to EPD approvals and permits. This requirement is based on the assumption that county-wide water demands meet or exceed 143 mgd AAD. If water demands in future revisions to the District Plan are lower than 143 mgd, then the total return flow capacity requirement of 60 mgd would also be proportionally lower.

6) The 20 MGD currently permitted (F. Wayne Hill WRC) to be discharged to the Chattahoochee River (via Crooked Creek WRF outfall) may eventually come from a new plant instead of the F. Wayne Hill WRC. Alternatively, consideration will be given to other discharge locations in the Chattahoochee/Lake Lanier Basin.

7) Gwinnett County plans to convert septic tanks in the Ocmulgee River Basin to sewer, creating an estimated additional 5 mgd in flows to the Yellow River WRF. These septic systems are currently considered 100% consumptive in District planning efforts. When these septic-to-sewer conversions are completed, the District Plan includes an up to 5 mgd increase to the Yellow River WRF discharge capacity (to 27 mgd). This is considered part of the approved District facilities plan only if documented septic-to-sewer conversions within the Yellow River WRF are provided to the District and approved by the District prior to expansion. This expansion may be performed incrementally or as one 5 mgd expansion.

HALL COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (Note 1) (MGD)	
			Monthly (Note 2)	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	1.2	1.2
Total Withdrawal (MGD)		**33.2**	**43.1**	**56.9**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 3)
Hall County	48.1
Self Supplied	-1.9
Total Projected Demand from Facilities (PD-MGD)	**46.2**
Treatment Capacity (Note 3)	55.0
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	30.1

Notes:
3) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.39 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 4)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Chattahoochee Basin		
Gainesville Lakeside WTP	10.0	55.0
Gainesville Riverside WTP	25.0	
Groundwater		
Flowery Branch	0.7	0.7
Lula	0.5	1.2
Total Capacity (PD-MGD)	**36.2**	**56.9**

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.

Interconnections

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

HALL COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)	2050 Maximum Month (Note 4) Average Daily Flow (MMF–MGD)
Hall County Sewered Needs	22.6	26.4
Total Projected Sewered Flows to Plants	**22.6**	**26.4**
Septic Flows (AAD-MGD)	6.4	7.1

Phasing Plan

Facilities (Notes 1, 2, 3)	Existing (2021) Permitted Plant Capacity (MMF-MGD)	By 2040 Plant Capacity at End of Period (MMF-MGD)	By 2050 (Note 4) Plant Capacity at End of Period (MMF-MGD)
Chattahoochee Basin (Lake Lanier)			
Flowery Branch WPCP	0.4	*3*	*6*
Gainesville Flat Creek WRF	12	*25*	*25*
Gainesville Linwood WRF	5		
Hall County Spout Springs (Note 5)		*4.5*	*19*
North Hall WWTP (Note 6)			
Lula WRF	0.375	*3.8*	*3.8*
Oconee Basin			
Hall County Spout Springs (Note 5)	0.75		
Total Capacity (MMF-MGD)	**18.5**	**36.3**	**53.8**
Sewered Needs		**22.6**	**26.4**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) The 2050 column is provided for Forsyth, Gwinnett, and Hall Counties in order to demonstrate planned infrastructure improvements for return flows to Lake Lanier within the 2040-2050 time period for the counties that border the lake.
5) 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.
6) 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. The discharge location will be into the Chattahoochee/Lake Lanier Basin.
7) The implementation of Lake Lanier discharge facilities is a critical piece of the District Plan and the drinking water supply plan for the State of Georgia in the ACF basin. In addition to the requirements outlined in notes 5 & 6 above, Hall County and the cities, combined, shall have facilities with the capacity to discharge 16.6 MGD on an average annual basis to Lake Lanier by 2050, subject to EPD approvals and permits. This requirement is based on the assumption that county-wide water demands meet or exceed 32 mgd AAD. If water demands in future revisions to the District Plan are lower than 32 mgd, then the total return flow capacity requirement of 16.6 mgd would also be proportionally lower.

HENRY COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Gardner Reservoir (Indian Creek)	HCWA	8.0	18.0	24.0
Rowland Reservoir (Long Creek)		10.0		
Towaliga River Reservoirs (Strickland and Cole)		11.0		
Tussahaw Creek Reservoir		24.0	19.5	26.0
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	1.2	1.2	1.2
Crystalline Rock Aquifer	McDonough	0.3	0.3	0.3
Crystalline Rock Aquifer	Stockbridge	0.75	0.75	0.75
Total Withdrawal (MGD)		**40.3**	**42.9**	**56.3**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 3)
Henry County Needs	54.9
Self Supplied	-1.2
Total Projected Demand from Facilities (PD-MGD)	**53.7**
Treatment Capacity	56.3
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	34.3

Notes:
3) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.48 from 2011 to 2019 in this county.

Phasing Plan

Facilities (Note 4)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Ocmulgee Basin		
Henry Towaliga River WTP	24.0	24.0
Henry Tussahaw WTP	16.1	26.0
McDonough WTP	2.4	3.2
Locust Grove WTP	0.5	0.5
Groundwater		
Hampton	0.369	0.369
Locust Grove	1.2	1.2
McDonough	0.3	0.3
Stockbridge	0.75	0.75
Total Capacity (PD-MGD)	**45.6**	**56.3**

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.

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

HENRY COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Henry County Sewered Needs	19.1
To DeKalb County (Note 6)	-0.50
To Clayton County	-0.10
Total Projected Sewered Flow to Plants	**18.5**

Septic Flows (AAD-MGD)	6.1

Phasing Plan

Facilities (Notes 1, 2, 3, 4)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Flint Basin		
Hampton WPCP	1.75	1.75
Henry Bear Creek WRF/LAS	1.25	4
Ocmulgee Basin		
Henry Tussahaw Creek WRF (Note 5)		*23.6*
Henry Indian Creek WRF	3	
Henry Walnut Creek LAS/WRF	8	
Locust Grove Indian Creek WPCP	1.5	*3*
McDonough Walnut Creek WPCP	2	*4*
Stockbridge WPCP	1.5	*2.25*
Total Capacity (MMF-MGD)	**19.0**	**38.6**
Sewered Needs		**18.5**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.

4) The Henry Bear Creek LAS will serve all unincorporated areas of the County in the Flint Basin until being expanded. Once expanded, Henry Bear Creek will Discharge treated flow to surface water bodies in the Flint Basin. The Tussahaw Creek WRF and expanded Henry Walnut Creek WRF will discharge treated flow to surface water bodies in the Ocmulgee Basin.

5) Henry Tussahaw Creek WRF is estimated to be constructed in the 2025-2030 timeframe with a capacity of 0.6 MGD.

6) Maintain multi-jurisdictional agreement with DeKalb County to receive wastewater from the northern corner of the county at the DeKalb County Pole Bridge AWTF and with Clayton County to receive wastewater from the western side of the county at the Clayton County Northeast WRF.

PAULDING COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Richland Creek Reservoir	Paulding	42.0	27.0	36.0
Etowah River (Note 3)		Fills Richland Creek Reservoir		
Crystalline Rock Aquifer	Dallas	0.202	0.202	0.202
Total Withdrawal (MGD)		**42.2**	**27.2**	**36.2**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.
3) The intake in the Etowah River used to fill Richland Creek Reservoir has the capacity to pump at a peak rate of 47 MGD.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 4)
Paulding County Needs	34.1
Self Supplied	-0.4
From Cobb County-Marietta Water Authority	0.0
Total Projected Demand from Facilities (PD-MGD)	**33.7**
Treatment Capacity (Note 4)	36.2
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	21.3

Notes:
4) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.55 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 5)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Coosa Basin		
Paulding County WTP	18.0	36.0
Groundwater		
Dallas	0.202	0.202
Total Capacity (PD-MGD)	**18.2**	**36.2**

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.

Interconnections
Maintain interconnections and water supply agreements with Cobb County.

PAULDING COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Paulding County Sewered Needs	11.8
From Cobb County	0.48
To Cobb County	-4.42
Total Projected Sewered Flow to Plants	**7.9**

Septic Flows (AAD-MGD)	4.9

Phasing Plan

Facilities (Notes 1, 2, 3, 4)	Existing (2021) Permitted Plant Capacity (MMF-MGD)	By 2040 Planned Plant Capacity (MMF-MGD)
Chattahoochee Basin		
Paulding Coppermine WRF	1	4.3
Paulding Coppermine LAS	1.033	
Paulding Upper Sweetwater WRF	0.3	
Coosa Basin		
Dallas Pumpkinvine Creek WPCP	1.5	*4.5*
Paulding Pumpkinvine Creek WRF	1.5	*7.0*
Total Capacity (MMF-MGD)	**5.3**	**15.8**
Sewered Needs		**7.9**

Notes:

1) Max Month 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) 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, while flow discharged to Cobb County will eventually be discharged to the Chattahoochee River. More stringent phosphorus limits will likely be imposed as a result of the recent TMDL for Lake Allatoona. Treated flow from the Paulding Coppermine WRF will be discharged to surface water in the Chattahoochee Basin.

ROCKDALE COUNTY - WATER

Summary of Planned Sources

Source	Local Water Provider	Current Permitted Withdrawal Monthly Average (MGD)	2040 Planned Withdrawal (MGD) (Note 1)	
			Monthly (Note 2)	Peak Day
Big Haynes Creek (Randy Poynter Lake)	Rockdale	32.8	20.3	27.0
Total Withdrawal (MGD)		**32.8**	**20.3**	**27.0**

Notes:
1) 2040 Planned Withdrawal reflects proposed plant capacities needed to accommodate projected water demands and incremental plant expansions.
2) Monthly is calculated by dividing Peak Day by 1.33, unless otherwise listed in current permits.

Summary of Needs

Water Demands & Capacities	2040 Peak Day Demand (PD–MGD) (Note 3)
Rockdale County Needs	26.9
Self Supplied	-0.9
Total Projected Demand from Facilities (PD-MGD)	**26.0**
Treatment Capacity	27.0
Total Projected Demand from Facilities (AADF-MGD)	**2040 (AADF-MGD)**
	16.8

Notes:
3) District-wide planning peak day factor is 1.6 times annual average day.
For local system planning, the highest peak day factor was 1.44 from 2011 to 2019 in this County.

Phasing Plan

Facilities (Note 4)	Existing (2021) Permitted Plant Capacity (PD-MGD)	By 2040 Plant Capacity at End of Period (PD-MGD)
Ocmulgee Basin		
Rockdale WTP	22.1	27.0
Total Capacity (PD-MGD)	**22.1**	**27.0**

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.

Interconnections

Maintain interconnections and water supply agreements with DeKalb, Gwinnett and Newton Counties.
Infrastructure should be maintained to allow transfers from DeKalb and Gwinnett Counties to fill peak demands on an emergency basis.

ROCKDALE COUNTY - WASTEWATER

Summary of Needs

Wastewater Flows & Capacities	2040 Maximum Month Average Daily Flow (MMF–MGD)
Rockdale County Sewered Needs	10.2
To DeKalb County	-0.2
Total Projected Sewered Flow to Plants	**10.0**

Septic Flows (AAD-MGD)	3.1

Phasing Plan

Facilities (Note 1, 2, 3)	Existing (2021)	By 2040
	Permitted Plant Capacity (MMF-MGD)	Planned Plant Capacity (MMF-MGD)
Ocmulgee Basin		
Rockdale Quigg Branch WPCP	7.0	*16.0*
Rockdale Almand Branch WPCP	1.25	
Rockdale Honey Creek WPCP	0.3	
Rockdale Scott Creek WPCP	0.45	
Rockdale Reuse Facility (Note 4)		
Rockdale Snapping Shoals WPCP	3.0	
Total Capacity (MMF-MGD)	**12.0**	**16.0**
Sewered Needs		**10.0**

Notes:

1) Maximum Month Flow 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) Planned plant capacity values shown in italics are values provided by local wastewater providers and are subject to applicable water quality permitting requirements and must provide justification of need to Georgia EPD. Inclusion in this appendix does not guarantee assimilative capacity or a permit. When applying to Georgia EPD for wasteload allocations or wastewater disposal permits, wastewater providers are responsible for providing the necessary documentation to justify the socio-economic need that may be documented through local master planning or other planning documents and that the plant capacities specified above are not exceeded.
4) The Rockdale Reuse Facility will be constructed by 2040 and have a capacity of 4.0 MGD.