Coastal Georgia Regional Water Planning Council Meeting

February 24, 2022

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Meeting Agenda

Georgia's
State Water Plan

Coastal Georgia Regional Water Council Meeting
Draft Agenda – February 24, 2022

Objectives:

1) Receive updates on on-going technical work that will support the 2021-2022 Water Plan Update Cycle
2) Receive updates on up-coming Regional Water Plan Update Process

9:30 – 10:00	Registration
10:00 – 10:20	Welcome and Introductions - Benjy Thompson
	Approve meeting minutes from July 15, 2021 Council Meeting
	Approve meeting agenda
	Review Vision and Goals
10:20 – 10:30	Updates from EPD
10:30 – 12:00	Updates on Technical Work supporting the 2021-2022 Regional Water Plan Update Cycle
	- Review and Discussion of Population Projections
	- Question and Answer (Q&A) Session with Demographer
	- Review and Discussion of Water Demand Forecasts
12:00 – 12:30	Lunch
12:30 - 1:30	Updates on Technical Work supporting the 2021-2022 Regional Water Plan Update Cycle
	- Review Agricultural Water Demand Forecast
	- Review of new Surface Water Modeling Approach to Support Resource Assessments
1:30 - 1:45	Overview of Regional Water Plan Update Process and Schedule Moving Forward
1:45 – 2:00	Public Comments/Local Elected Official Comments
	Next Steps / Wrap Up
2:00	Adjourn

Welcome and Introductions

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Coastal Georgia Region – Vision and Goals

In developing the Council's Vision and goals:

- **The Council went through an extensive visioning process to develop the Vision and subsequent supporting Goals**
- **The Council's Vision is meant to guide and frame the selection of management practices**
- **The Region's vision and goals should reflect how you see resources managed to meet regional needs**

Coastal Georgia Region – Vision and Goals

In reviewing the Council's Vision ang goals:

- **Have any major water issues surfaced in the region?**
- **Has what you wish to see for this region regarding water resources changed substantially over the last 5 years?**
- **Are there any things on the horizon that may influence the vision for the region?**
- **If answers are substantively no, revisions to Vision and Goals may not be necessary.**

Coastal Georgia Region

Council's Vision (as adopted by the Council 9.24.09 and renewed 3.10.2016):

The Coastal Georgia Regional Water Planning Council seeks to conserve and manage our water resources in order to sustain and enhance our unique coastal environment and economy of Coastal Georgia.

Coastal Georgia Region Vision and Goals

Coastal Georgia Adopted Goals:

- ***Manage and develop high quality water resources to sustainably and reliably meet domestic, commercial, industrial and agricultural water needs.***
- ***Identify fiscally responsible and implementable opportunities to maximize existing and future supplies including promoting water conservation and reuse.***
- ***Optimize existing water and wastewater infrastructure, including identifying opportunities to implement regional water and wastewater facilities.***
- ***Protect and maintain regional recreation, ecosystems, and cultural and historic resources that are water dependent to enhance the quality of life of our current and future citizens and help support tourism and commercial activities.***

Coastal Georgia Region Vision and Goals

Coastal Georgia Adopted Goals:

- ***Identify and utilize best available science and data and apply principles of various scientific disciplines when making water resource management decisions.***
- ***Identify opportunities to manage stormwater to improve water quantity and quality, while providing for wise land management, wetland protection, and wildlife sustainability.***

Updates from EPD

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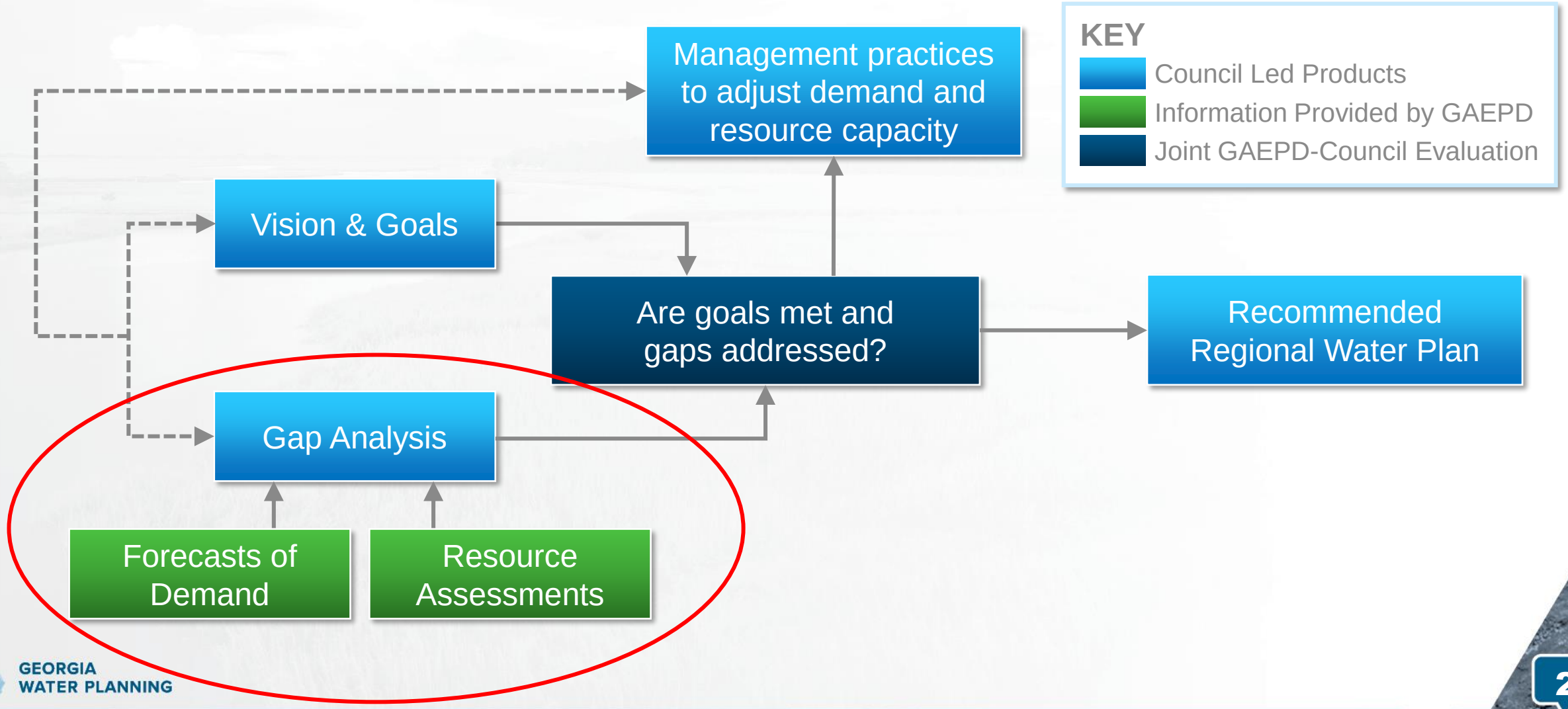
Planning Process Diagram



Updates on Technical Work supporting the 2021-2022 Regional Water Plan Update Cycle

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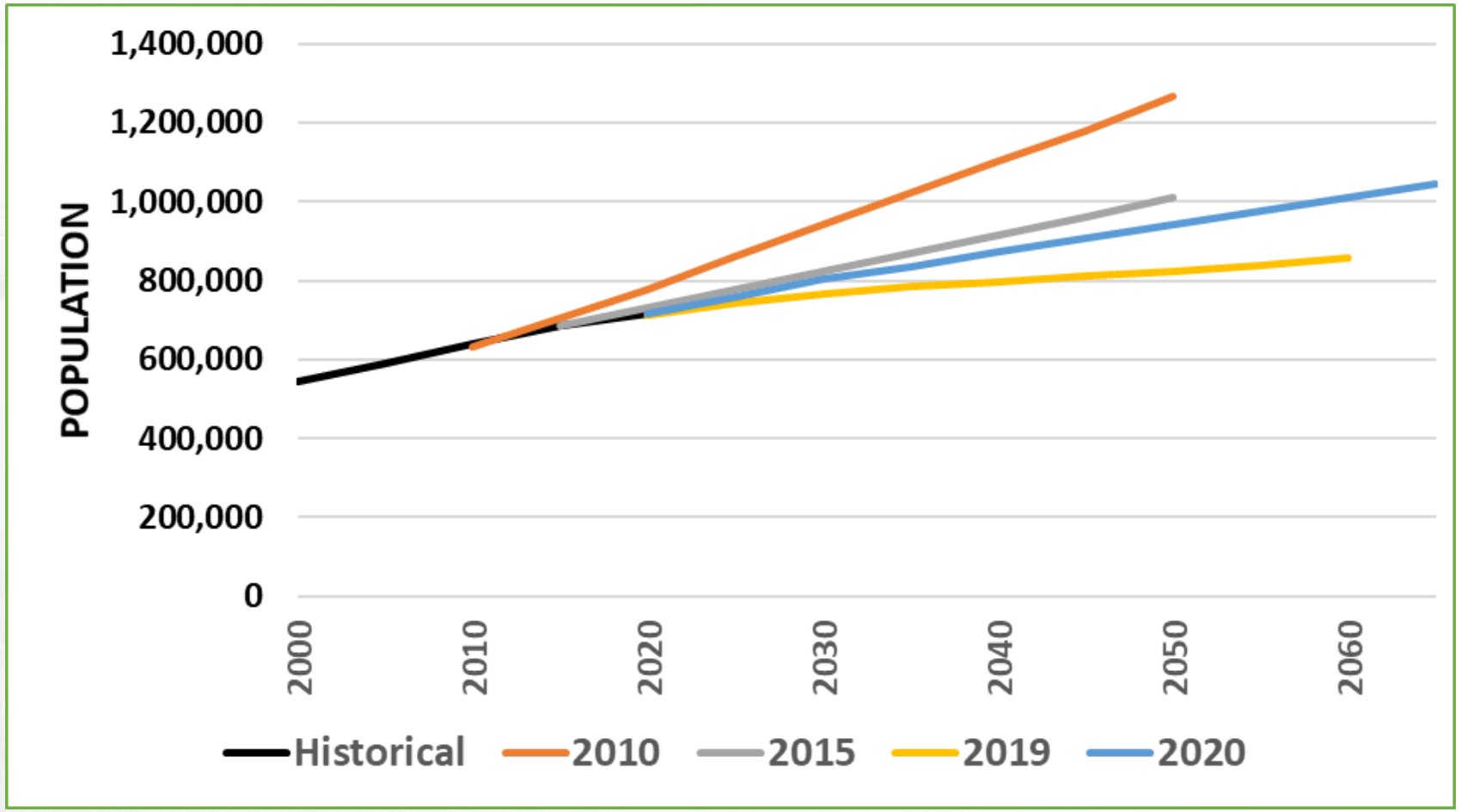
Population Projections

Taylor Hafley
Carl Vinson Institute of Government | *Applied Demographer*
University of Georgia

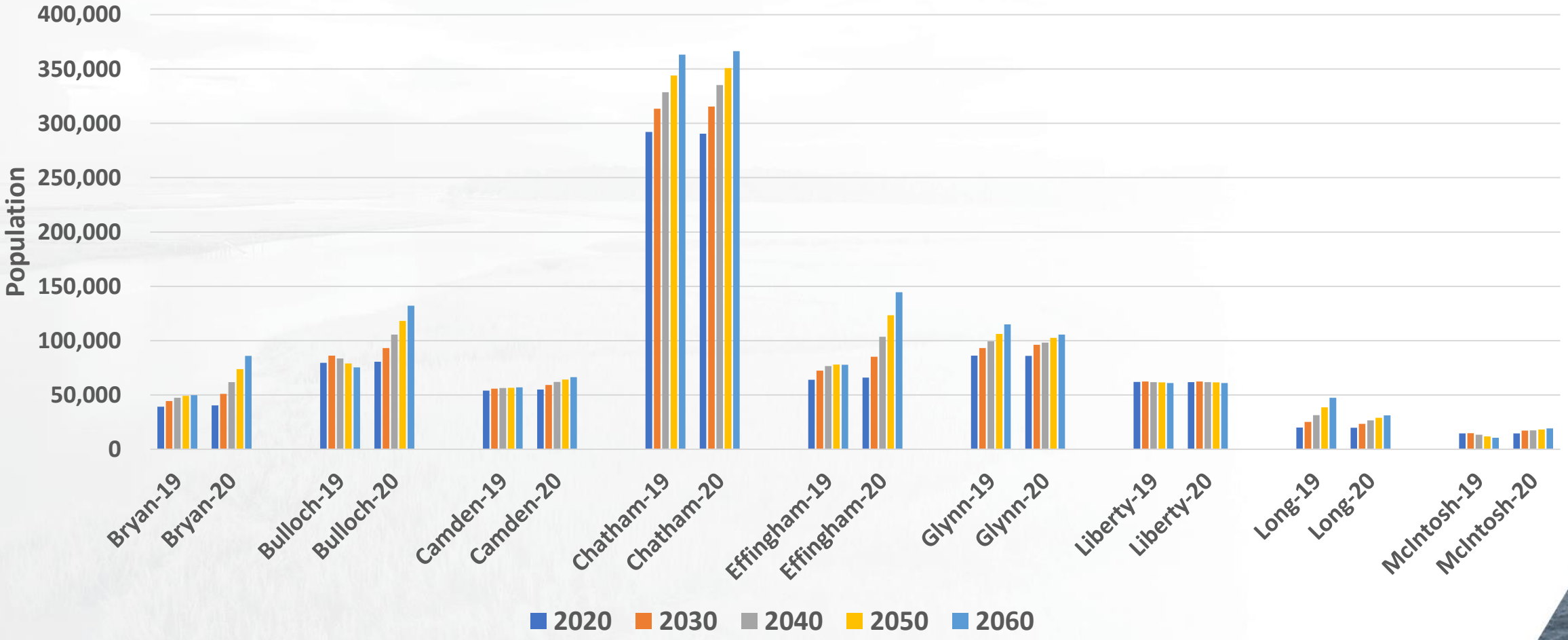
201 N Milledge Avenue | Athens GA 30601
706.542.9369
taylor.hafley@uga.edu | cviog.uga.edu

Note: Switch over sharing to Taylor Hafley who has a few slides to share on background for methodology of population projections

Population Projections



Population Projections (OPB 2019 compared to 2020)



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Population Projections (OPB 2019 compared to 2020)

Significant or Moderate Increase in Growth Rate

	2019 Growth	2020 Growth
Bryan	27%	112%
Bulloch	-5%	64%
Camden	6%	21%
Effingham	21%	120%
McIntosh	-27%	32%

Little or No Increase in Growth Rate

	2019 Growth	2020 Growth
Chatham	24%	26%
Liberty	-1%	-1%

Decrease in Growth Rate

	2019 Growth	2020 Growth
Glynn	34%	23%
Long	138%	57%

Pause for Q&A from Council with Demographer

Coastal GA - Per Capita Water Use Factors

- Public-Supply gpcd is based on utility reported data for each county
- Self-supplied gpcd is assumed to be 100 gpcd
- Values are reduced for future efficiency

Public-Supply Gallons per Capita per Day					
County	2020	2030	2040	2050	2060
Bryan	116.9	115.3	113.6	111.9	110.2
Bulloch	88.0	85.9	83.9	81.8	79.7
Camden	88.0	86.3	84.5	82.8	81.1
Chatham	106.1	103.5	100.8	98.2	95.5
Effingham	189.3	187.6	185.9	184.2	182.5
Glynn	119.9	117.5	115.1	112.7	110.3
Liberty	116.0	114.0	112.0	110.1	108.1
Long	235.3	233.4	231.6	229.7	227.8
McIntosh	118.6	116.4	114.3	112.1	109.9

Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Coastal GA - Municipal Forecast

Municipal Water Demand in MGD					
County	2020	2030	2040	2050	2060
Bryan	4.56	5.66	6.75	7.93	9.10
Bulloch	7.30	8.25	9.12	9.95	10.86
Camden	4.92	5.19	5.34	5.42	5.48
Chatham	63.32	65.16	66.32	66.98	67.54
Effingham	10.45	13.34	16.06	18.91	21.94
Glynn	10.12	11.08	11.08	11.32	11.40
Liberty	7.09	7.03	6.84	6.69	6.52
Long	2.73	3.17	3.56	3.83	4.07
McIntosh	1.61	1.86	1.84	1.88	1.95
Total	112.1	120.7	126.9	132.9	138.9

Lunch Break

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Updates on Technical Work supporting the 2021-2022 Regional Water Plan Update Cycle

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Agricultural Water Demand Forecast

Mark Masters
Albany State University
Georgia Water Planning & Policy Center
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229-430-2900 x36

Note: Switch over sharing to Mark Masters who has a presentation on the Agricultural Water Demand Forecast

Surface Water Resource Assessment Modeling

Confirm EPD Presenter

Note: Switch over sharing to EPD Presenter

Overview of Regional Water Plan Update Process and Schedule Moving Forward

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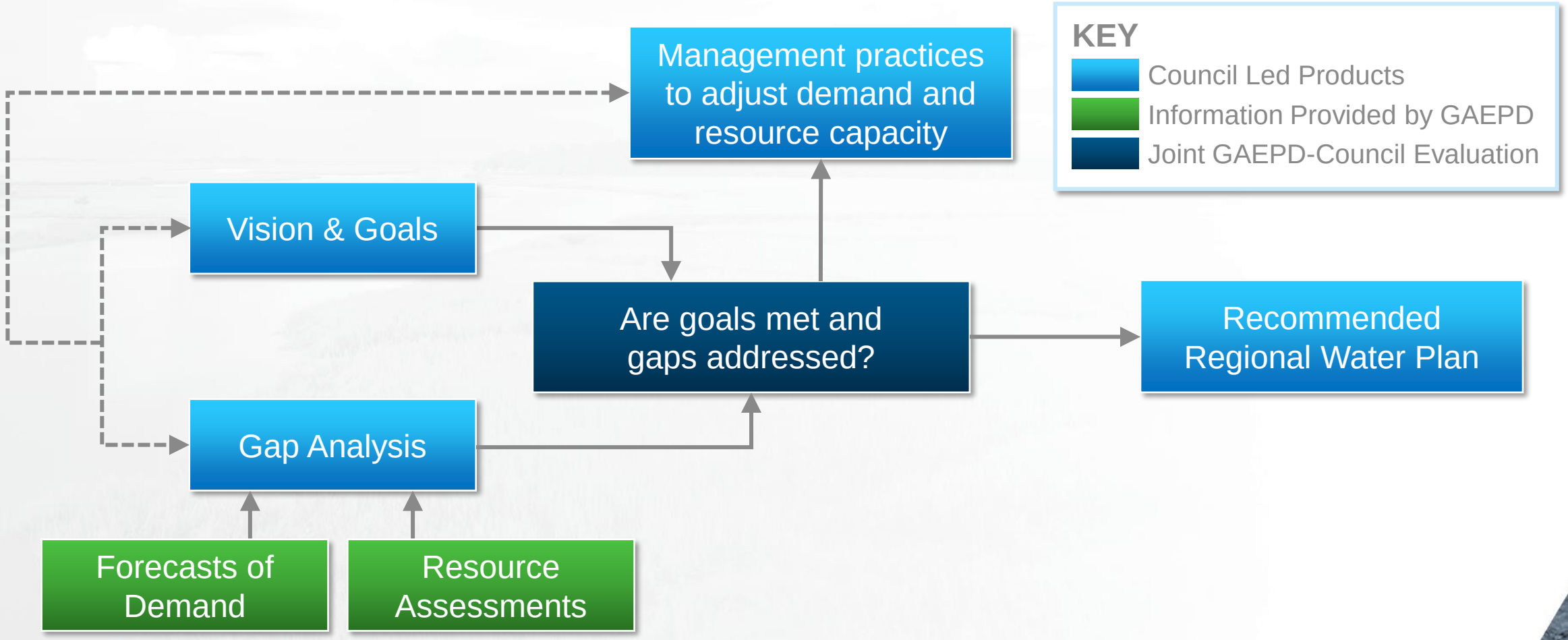
Path Forward: Information Flow/Products



Public Comments

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Next Steps

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Regional Water Plan Update

Regional Water Plan Review and Revision Schedule

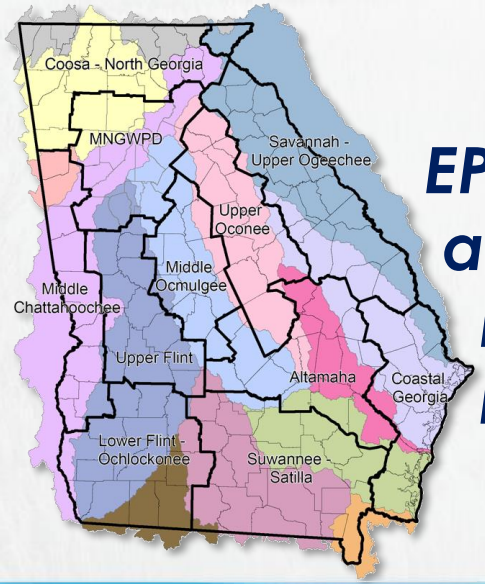
Meeting One
4th Quarter 2021
July 15, 2021

Meeting Two
1st Quarter 2022
Feb. 24th

Meeting Three
2nd Quarter 2022

Meeting Four
3rd Quarter 2022
Draft Plan

Meeting Five (Final)
4th Quarter 2022
Incorporate Comments



EPD targeted date of adoption of revised Regional Water Plan by December 2022

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Thank You

BENJY THOMPSON
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Bulloch County

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Bullpen of Slides – May not need these slides

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Municipal Water by Source

- Public-supplied water is identified by source from permit data
- Self-supplied water is ground water

<table>
<tr><td rowspan="3">Municipal Water</td><td rowspan="2">Public-Supply</td><td>Surface Water</td></tr>
<tr><td>Groundwater</td></tr>
<tr><td>Self-Supply</td><td>Groundwater</td></tr>
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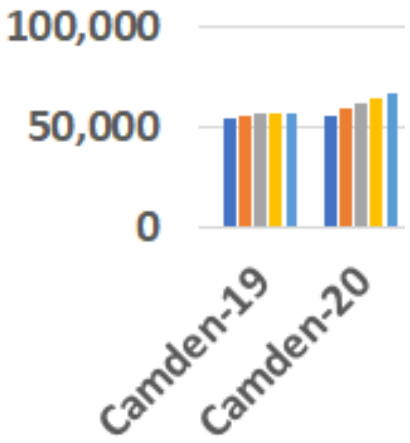
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Camden County Municipal Water Demand

Camden	2020	2030	2040	2050	2060
Population	54,975	59,056	62,037	64,216	66,311
Public-Supply	47,723	51,266	53,854	55,745	57,564
Self-Supply	7,252	7,790	8,183	8,471	8,747

Public-Supply GPCD	88.0	86.3	84.5	82.8	81.1
Self-Supply GPCD	100.0	98.3	96.5	94.8	93.1

Public-Supply MGD	4.200	4.422	4.552	4.615	4.666
Self-Supply MGD	0.725	0.765	0.790	0.803	0.814
Municipal MGD	4.925	5.188	5.342	5.418	5.480



What if 2019 Population Projections Were Used Instead?

2060

4.01 mgd

0.70 mgd ↓ -14%

4.71 mgd

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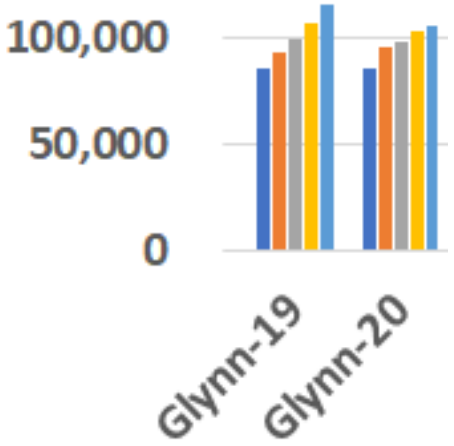
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Glynn County Municipal Water Demand

Glynn	2020	2030	2040	2050	2060
Population	86,002	96,110	98,151	102,445	105,468
Public-Supply	76,307	85,275	87,086	90,896	93,578
Self-Supply	9,695	10,835	11,065	11,549	11,890

Public-Supply GPCD	119.9	117.5	115.1	112.7	110.3
Self-Supply GPCD	100.0	97.6	95.2	92.8	90.4

Public-Supply MGD	9.150	10.021	10.024	10.245	10.323
Self-Supply MGD	0.970	1.057	1.053	1.072	1.075
Municipal MGD	10.119	11.078	11.078	11.317	11.397



What if 2019 Population Projections Were Used Instead?

2060

11.25 mgd

1.17 mgd

12.42 mgd

↑ 9%

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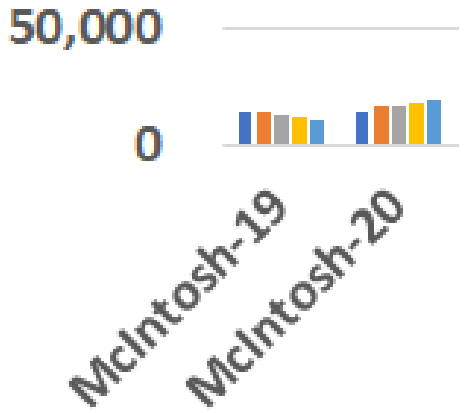
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

McIntosh County Municipal Water Demand

McIntosh	2020	2030	2040	2050	2060
Population	14,585	17,234	17,361	18,097	19,231
Public-Supply	7,985	9,435	9,505	9,908	10,529
Self-Supply	6,600	7,799	7,856	8,189	8,702

Public-Supply GPCD	118.6	116.4	114.3	112.1	109.9
Self-Supply GPCD	100.0	97.8	95.6	93.4	91.3

Public-Supply MGD	0.947	1.099	1.086	1.110	1.157
Self-Supply MGD	0.660	0.763	0.751	0.765	0.794
Municipal MGD	1.607	1.861	1.837	1.876	1.951



What if 2019 Population Projections Were Used Instead?

2060

0.64 mgd

0.44 mgd ↓ - 45%

1.08 mgd

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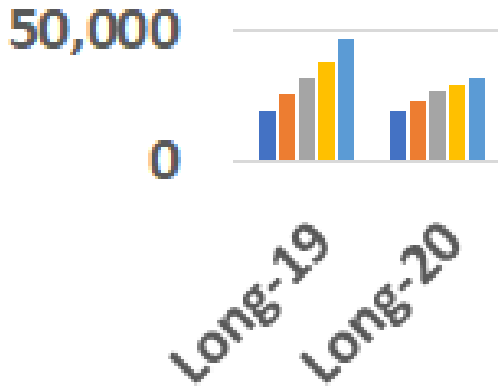
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Long County Municipal Water Demand

Long	2020	2030	2040	2050	2060
Population	19,846	23,327	26,607	28,956	31,228
Public-Supply	5,530	6,500	7,414	8,069	8,702
Self-Supply	14,316	16,827	19,193	20,887	22,526



Public-Supply GPCD	235.3	233.4	231.6	229.7	227.8
Self-Supply GPCD	100.0	98.1	96.3	94.4	92.5

Public-Supply MGD	1.301	1.517	1.717	1.853	1.983
Self-Supply MGD	1.432	1.651	1.848	1.972	2.084
Municipal MGD	2.733	3.169	3.565	3.825	4.067

What if 2019 Population Projections Were Used Instead?

2060

3.00 mgd

3.16 mgd

6.16 mgd

↑ 52%

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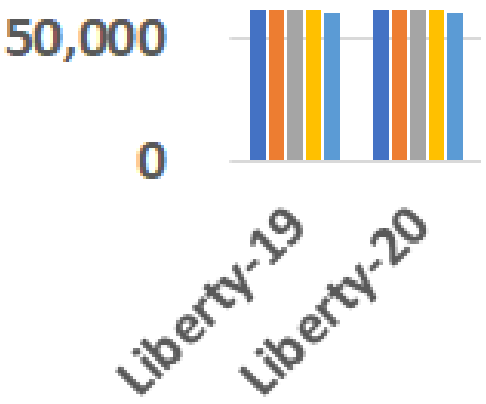
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Liberty County Municipal Water Demand

Liberty	2020	2030	2040	2050	2060
Population	61,771	62,286	61,727	61,485	61,018
Public-Supply	57,175	57,652	57,135	56,911	56,478
Self-Supply	4,596	4,634	4,592	4,574	4,540

Public-Supply GPCD	116.0	114.0	112.0	110.1	108.1
Self-Supply GPCD	100.0	98.0	96.0	94.1	92.1

Public-Supply MGD	6.632	6.573	6.401	6.263	6.104
Self-Supply MGD	0.460	0.454	0.441	0.430	0.418
Municipal MGD	7.092	7.028	6.842	6.693	6.521



What if 2019 Population Projections Were Used Instead?

2060

6.10 mgd

0.42 mgd

6.52 mgd

0%

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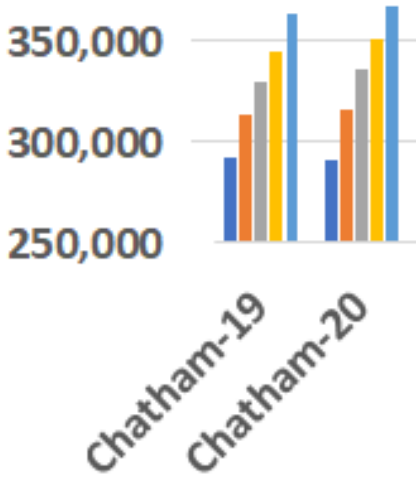
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Chatham County Municipal Water Demand

Chatham	2020	2030	2040	2050	2060
Population	290,550	315,524	335,211	350,796	366,403
Public-Supply	286,054	310,641	330,023	345,367	360,733
Self-Supply	4,496	4,883	5,188	5,429	5,670



Public-Supply GPCD	106.1	103.5	100.8	98.2	95.5
Self-Supply GPCD	100.0	97.4	94.7	92.1	89.4

Public-Supply MGD	62.866	64.683	65.833	66.476	67.038
Self-Supply MGD	0.450	0.475	0.491	0.500	0.507
Municipal MGD	63.316	65.158	66.324	66.976	67.545

What if 2019 Population Projections Were Used Instead?

2060

66.73 mgd

0.50 mgd ↓ - 0.5%

67.23 mgd

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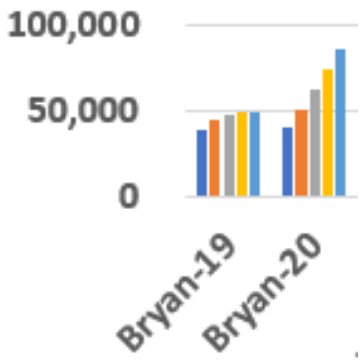
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Bryan County Municipal Water Demand

Bryan	2020	2030	2040	2050	2060
Population	40,443	51,025	61,808	73,657	85,920
Public-Supply	30,176	38,072	46,117	54,958	64,108
Self-Supply	10,267	12,953	15,691	18,699	21,812



Public-Supply GPCD	116.9	115.3	113.6	111.9	110.2
Self-Supply GPCD	100.0	98.3	96.6	95.0	93.3

Public-Supply MGD	3.529	4.388	5.238	6.151	7.067
Self-Supply MGD	1.027	1.274	1.517	1.776	2.035
Municipal MGD	4.556	5.662	6.755	7.927	9.102

What if 2019 Population Projections Were Used Instead?

2060

4.09 mgd

1.18 mgd

5.27 mgd

↓ - 42%

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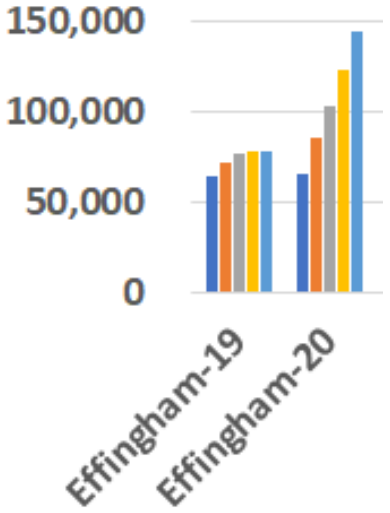
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Effingham County Municipal Water Demand

Effingham	2020	2030	2040	2050	2060
Population	65,869	85,054	103,498	123,250	144,621
Public-Supply	43,208	55,793	67,892	80,849	94,867
Self-Supply	22,661	29,261	35,606	42,401	49,754

Public-Supply GPCD	189.3	187.6	185.9	184.2	182.5
Self-Supply GPCD	100.0	98.3	96.6	94.8	93.1

Public-Supply MGD	8.181	10.468	12.621	14.891	17.310
Self-Supply MGD	2.266	2.876	3.438	4.022	4.633
Municipal MGD	10.447	13.343	16.059	18.912	21.943



What if 2019 Population Projections Were Used Instead?

2060

9.30 mgd

2.49 mgd

11.79 mgd

↓ - 46%

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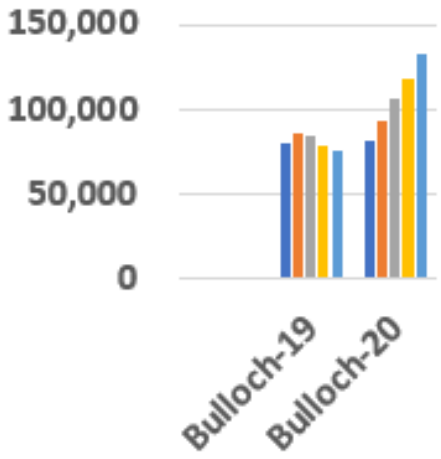
Preliminary Draft Update – Using 2020 Population Projections (Prepared by CDM Smith Jan. 2022 – need B&V's review)

Bulloch County Municipal Water Demand

Bulloch	2020	2030	2040	2050	2060
Population	80,592	93,233	105,549	118,064	132,128
Public-Supply	63,579	73,551	83,267	93,140	104,235
Self-Supply	17,013	19,682	22,282	24,924	27,893

Public-Supply GPCD	88.0	85.9	83.9	81.8	79.7
Self-Supply GPCD	100.0	97.9	95.8	93.7	91.7

Public-Supply MGD	5.597	6.322	6.983	7.617	8.307
Self-Supply MGD	1.701	1.927	2.135	2.337	2.557
Municipal MGD	7.298	8.249	9.119	9.954	10.864



What if 2019 Population Projections Were Used Instead?

2060

4.74 mgd ↓ - 43%

1.46 mgd

6.19 mgd

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