

Memorandum

To: Georgia Regional Water Planning Councils – Coastal Georgia

From: Shayne Wood, CDM Smith

Date: June 6, 2023

Subject: Coastal Georgia Regional Water Planning Council Meeting Summary

This memorandum provides a summary of the items presented during the June 6, 2023, Coastal Georgia Regional Water Planning Council (Council) Meeting, held at the Bryan County Board of Education Office in Black Creek, GA. This meeting also included participation virtually via the MS Teams platform. This memorandum provides a summary of the major items discussed at the Council Meeting. The Council Meeting was held from 10:30 AM to 1:30 PM and followed the agenda outlined below. There was an optional tour of the Bryan County Mega Site following the Council Meeting.

1) Welcome and Introductions

CDM Smith, the Planning Contractor (PC), and Benjy Thompson the Council Chairman, initiated the meeting, welcoming Council Members (CM) and guests.

Council Members reviewed the draft meeting minutes from the November 15, 2022 Council Meeting. Chairman Thompson called for a Motion, which was seconded and a vote from other council members in attendance to approve the previous meeting summary (the meeting summary was approved). Chairman Thompson then asked Council Members to review the agenda. A motion was made to approve the agenda, followed by a second and a vote passed to approve the agenda.

2) Review Public Comments Received on the 2021-2022 Regional Water Plan Update (Shayne Wood, CDM Smith)

Mr. Wood reviewed comments received on the draft Regional Water Plan and asked the Council to decide if they would like to make any revisions to the draft plan. A summary of the comments received and discussion is documented below.

Comments were received from several entities/organizations/personnel, including, One Hundred Miles, staff from the University of Georgia and staff from the U.S. Department of Interior, Fish and Wildlife Service. Some of the comments received were specific to the Coastal Georgia Regional Water Plan and others were more generally focused on all ten of Georgia's Regional Water Plans. In cases where the comments were more general in nature, EPD assisted with developing follow-up responses, and these were reviewed with the council for additional discussion/consideration.

A summary of the discussion related to the review of these comments with the council is provided below:

- City of Savannah growth - A CM asked about the current capacity of the Savannah I&D plant. Mr. Wood noted that he didn't have the numbers readily available but that he thought the overall plant capacity was in the range of 60 to 75 million gallons per day (mgd) but he thought that current actual demands were in the range of 40-50 mgd. Mr. Wood noted that flows can fluctuate daily and seasonally and can vary for other reasons such as industrial demands which can fluctuate significantly based on things like production rates, facility maintenance, etc.
- City of Savannah I&D Surface Water Intake and Potential for Relocation - A CM commented that it is not likely that the intake will be relocated in the next 5 years. Most of the area to the north of the current intake structure is under conservation, so having the intake pipe relocated could be difficult if not impossible. The council noted that it's worthy of keeping tabs on how this discussion continues to unfold but without the City of Savannah saying officially on the record that the intake location would be moved (or not), the Council didn't think this needed to be added to the plan at this time.
- Water Conservation - Mr. Wood noted that there are primarily two forms of conservation, (1) is active conservation, which are specific programs typically developed and implemented by the local municipalities and utilities where they use incentives to encourage customers to change out fixtures and appliances that are more water efficient and then there is (2) passive conservation which happens naturally overtime through new or updated building codes and retrofits that occur as fixtures and appliances age and they are replaced with newer technology that tends to be more efficient. For example, if you go to a local big box retailer, you can no longer purchase 5-gallon flush toilets, therefore if a homeowner changes out an old toilet, it's very likely getting replaced with a significantly more water efficient fixture – these type conservation measures (and water efficiency “gains”) are implemented passively. Regardless of its form (passive or active), specifically estimating how much conservation has been achieved over time can be difficult to estimate. Mr. Wood noted that typical “active” conservation programs implemented by utilities and/or municipalities can typically reduce water usage by 10% to 20%, depending on the program, measures selected for implementation and the implementation timeline/schedule. A CM asked if the estimated range was published and if it could be referenced in the Plan. Mr. Wood noted that there are some industry references and we could provide those for future consideration to be noted in the regional water plan. Mr. Wood noted too that reviewing the reduction of the historical metric of gallons per capita per day (gpcd) for a region or county can be a proxy to indicate at least what some of the relative gains have been over time related to conservation. If you review the historical gpcds for the coastal region over the time period that the council has been involved in regional water planning (going back to circa 2010) – this can give us a sense of at least some of the gains that have been made towards conservation implementation. For example, in the 2011 Coastal Georgia Regional Water Plan (CG RWP), the regionwide gpcd was approximately 138 and that regionwide gpcd in this plan update period (2022-2023 CG RWP) was estimated to be 113 gpcd.

- Industrial Warehouse Growth – A CM asked if the 3.4 gallons per square foot per year of expected water use in industrial warehouses is fire usage/fire flow. Mr. Wood noted that this water usage likely includes some fire flow, but it's more likely associated with everyday uses for the facility and by employees/staff, for things like drinking water and water for restroom or breakroom use, etc. A CM suggested that the 2023 Draft Plan reference the 2019 Plan and show examples of water usage – comparison of these plans would give a sense for how these demands may have changed over time. Mr. Wood agreed and noted that after putting together the 2019 Plan, the Council requested that the technical team re-do the methodology on how projections for industrial water demands were developed and asked that they be based on water use sector (i.e. mining, manufacturing, pulp and paper, etc.). The new methodologies were developed and utilized in this round of plan updates.
- Sea level rise – A CM noted that there is a sea level model that everyone can access currently. Mr. Wood added that the Army Corps of Engineers was working on a South Atlantic Coastal Study (SACS) related to sea level rise and vulnerability assessment that could be referenced as well.
- Harbor Deepening and Sea Level Rise– The Council discussed that the saltwater intrusion modeling done during permitting for the harbor deepening showed that the harbor deepening would not impact groundwater. As a result of that work, the Corps of Engineers and EPD continuously monitor “sentinel” wells to track if saltwater intrusion is migrating or intensifying. A CM noted that Georgia Tech has several sea level monitoring sites and asked if these were part of the NOAA study. Ms. Aslan (Georgia Southern University) explained that yes, about 40 of these sea level monitors have been placed around Chatham County.
- For those comments that were more general in nature and aimed at regional water planning across the entire State of Georgia, Mr. Wood reviewed the draft follow-up responses provided by GA EPD for consideration. The Council was appreciative to EPD for coordinating a suggested response and approved the EPD responses and confirmed there is no need to update the plan.
- There was some discussion to coordinate with the organizations/staff who provided review comments at future meetings to further the discussion and assist with addressing comments (for future plan updates) and having a forum for more collaborative planning and implementation. This included potential support from the water council to encourage some of these entities to consider potentially seeking future seed grant opportunities to enhance this collaboration for planning and implementation.
- Chairman Thompson summarized that all feedback received is appreciated, as these comments help the Council to do their job better.

3) Georgia Southern University Water Dashboard Seed Grant Demonstration (Asli Aslan and Luke Roberson, GA Southern University)

- Mr. Roberson provided an overview of the water dashboard and recent updates that added summaries for streamflow, rainfall and aimed to make the dashboard more user friendly. The groundwater portion of the dashboard was previously reviewed with the council and some of the enhancements made to that portion of the

dashboard were also reviewed with the council. The following provides a summary of the dashboard features that were reviewed with the council:

- There are four main pages, including the Intro, Groundwater Data, Precipitation Data and Discharge/Gage Height information
- The Groundwater Data Page has several features. The user can:
 - Drag sliders to analyze data from specific dates. The user can analyze data back to 1942
 - Select all sites (graphs will also show data from all sites) or unselect all sites and just look at data from one site. If multiple sites are selected, the graphs and results are shown in series.
 - Evaluate linear trendlines. The trendline adjusts as different date ranges and data are selected
- Discharge/Gage Height Page:
 - Some gages are tidal and some are not tidal.
 - If the site selected is a tidal site, only tidal data will be shown
- Mr. Roberson added that this is a public website, so all feedback to make the site better is appreciated. By September, the project will be closed out. The Council agreed to review the website and provide any comments by the end of July.
- Mr. Roberson noted that the dashboard currently does not show relationships such as how precipitation affects groundwater levels. This analysis would require another study.
- Mr. Wood suggested that Mr. Roberson consider showing a vertical bar that shows the start of a new year. He added that the color of the bar could indicate if it is a wet, dry or average year.
- The website can be accessed at the following link:
<https://public.tableau.com/app/profile/luke.roberson/viz/CoastalGeorgiaWaterStorageDashboard/CoastalGeorgiaWaterDashboardOverview>

4) Updates on Bryan County Mega Site – Including Expected Water Needs (Trent Thompson, Thomas and Hutton & Kirk Croasmun, Bryan County)

- Mr. Thompson and Mr. Croasmun noted that not a lot has changed since their presentation to the council last November (Nov. 15, 2022) but they noted there were some minor changes, and they provided those updates and provided a status update on the Mega Site. They began by summarizing Governor Brian Kemp's announcement of the Hyundai Mega Site in May 2022 and they reviewed how that estimated growth would impact expected water demands. The following items were discussed in the Mega Site update:
 - Battery JV (separate from the Hyundai Mega Site) will build batteries for the electric vehicles and is expected to use about as much water as Hyundai.
 - The completion of the Mega Site and Battery JV has been updated to January 2025 with buildout planned for January 2027.

- The expected water demands were reviewed. Mr. Thompson and Mr. Croasmun noted that the early out plan is to have green zone groundwater wells meet the initial demands and that some of the water will be allocated to Bulloch County and some will be allocated to Bryan County, requiring collaboration in the near term. In the long term, surface water transmission mains and associated water infrastructure expanded from Savannah's I&D plant will be required for the long-term solution to meet demands.
- A CM asked if all wells will be tied together. Mr. Thompson and Mr. Croasmun explained that the new water transmission main will tie the wells together, and Bryan County and Bulloch County will share the water supply, each receiving 3.25 mgd from the wells.
- The Mega Site team confirmed that the wells are all Floridan aquifer wells.
- A CM asked how the multi-jurisdiction is structured. Mr. Thompson and Mr. Croasmun explained that the plan is still in draft form, but it is expected that two of the four wells will be owned and operated by Bryan County and two wells will be owned and operated by Bulloch County. The governing agreement allows sharing of resources.
- The City of Savannah is in the process of improving their I&D plant (\$400M estimate). There is an immediate need now for a high service pump station to accommodate approximately 70 MGD. There is a plan to further upgrade the pumps in next 5 years or so.
- A CM asked if the new wells are in the yellow zone and if they will impact red zone wells even more. Mr. Thompson and Mr. Croasmun explained that the two new wells are not increasing capacity or withdrawals. The permit is still the same, regardless of the location of the wells, they are adding some new wells and pumping less from the existing wells to keep the overall pumping the same. The same amount of water is pumped, the water is just spread across more wells. They noted too that one of the changes (versus what was presented previously in Nov. 2022) was that EPD asked that the new green zone wells being proposed that they be moved further to the west and that recommendation was implemented in the plan. There are currently no water mains on the Mega Site, but this will become critical to provide water to the site.
- A CM asked how the 6 mgd water usage compares with other industries in the area. Mr. Thompson and Mr. Croasmun explained that International Paper uses about 20 mgd.
- Mr. Wood asked if the new wastewater treatment plant (WWTP) will produce reclaimed water. Mr. Thompson and Mr. Croasmun explained that the WWTP will have a water reclamation facility and membrane bioreactor system. Hyundai is interested in storing up to 1 mgd of the reclaimed water in a large linear storage pond for irrigation, and it may be possible for the Black Creek golf course to use the reclaimed water as well for irrigation. Hyundai's water use is primarily for their paint, which requires a specific water quality. Hyundai is not planning to use the

reclaimed water as process water at this time until the actual water quality produced from the treatment process is documented/understood.

5) Overview of Regional Water Plan Update Process to Finalize RWP for Adoption (Shayne Wood, CDM Smith)

Mr. Wood asked if the Council wanted to discuss any other potential updates to the draft plan following the feedback and discussion from the meeting today. The Council did not have any additional changes that they thought needed to be made. Mr. Wood reminded the Council to reach out if any comments or changes come to mind. The Council agreed to provide written confirmation via email that the Final Updated Regional Water Plan can be submitted to EPD by June 23, 2023. Mr. Wood will send the Council draft responses to comments for review as well.

Mr. Wood noted that the team is still available to organize council meetings after the plan is submitted. He asked CMs to think about any specific interests, seed grants, or topics that they would like to discuss at future meetings. Chairman Thompson added that if someone has a seed grant idea, they should reach out to himself or Mr. Wood. Mr. Wood shared that in other planning regions, when someone is interested in exploring a grant, he has set up a Microsoft Teams meeting to brief the CMs on the grant and allow people to ask questions and refine the proposal if needed. Grants will be announced in August and due in October. A pre-application meeting must be conducted before October 15, 2023. Chairman Thompson asked Mr. Wood to schedule a meeting in August to share any potential seed grant ideas.

6) Public Comment/Local Elected Official Comments

Mr. Wood asked if anyone in person or online would like to make a public comment. No local elected official comments nor public comments were received in person or virtually.

Mr. Wood wrapped up the meeting, and thanked everyone for attending. He added that he will work with Chairman Thompson to make any necessary changes to the Draft Regional Water Plan. Mr. Thompson reminded the Council that once the Plan is submitted, the Council will be able to dedicate more of their time reviewing new data and seed grants.

The meeting was adjourned at 1:30 PM. Some CMs stayed after the meeting to travel to the Hyundai Mega Site for a tour.

7) Meeting Attendance

Affiliation	Name
<i>Coastal Georgia Regional Water Planning Council</i>	Benjy Thompson John Godbee William Guthrie Phil Odom Mark Smith Jim Vaughn, Jr. Randy Weitman Ken Durand

Coastal Georgia Council Meeting Summary

June 6, 2023

Page 7

Affiliation	Name
	Ken Lee Jim McGowan Randal Morris David Stevens Jimmy Burnsed
Regional Water Planning Council Planning Contractors	Emory Gawlik Shayne Wood
Georgia EPD	Clete Barton Cliff Lewis Dr. Wei Zeng
Public/Agency Attendees:	
Altamaha Riverkeeper	Maggie Van Cantfort
St. Marys River Management Committee	Chip Campbell
Chatham County	Jackie Jackson
Georgia Southern University	Asli Aslan
Georgia Southern University	Luke Roberson
Legal Director for Ogeechee Riverkeeper	Ben Kirsch
Thomas and Hutton	Trent Thompson
Bryan County	Kirk Croasmun
Water Utility Management	Ellis Kirby
City of Savannah	Laura Walker