



Georgia Water Planning

Meeting Summary

Upper Flint Regional Water Council Meeting

Flint Energies – Reynolds, GA

March 16, 2022

Welcome & Introductions

Chairman Chase welcomed the Council and advised the Council members of member Larry Smith's passing in January. Kristin Rowles (GWPPC) reviewed the agenda and introduced the Council support team. Meeting materials are posted on the Council website.

Chairman's Report

Chairman Chase thanked the organizers for the information presented in today's meeting.

American Rescue Plan Act: Water & Infrastructure Awards

Kristin Rowles (GWPPC) presented the preliminary awards for Water and Infrastructure grants under the American Rescue Plan Act in the Upper Flint Region. A map with the awards was distributed to the Council. Next, she described one of the awards focused on agricultural source water conversion that will be implemented, in part, in this region. This \$49.8 million project will be implemented by the Georgia Water Planning and Policy Center at Albany State University in partnership with the Georgia Department of Natural Resources. The primary focus of the project will be the conversion of existing agricultural surface water withdrawals in the Lower Flint River Basin to deep aquifer sources (Claiborne, Cretaceous). The project aims to install 242 deep groundwater wells over a 5-year period. The project will also conduct conservation planning at each site, collect monitoring data on aquifer conditions and aquatic ecosystems, improve and expand flow augmentation systems, and engage stakeholders in the region in water resources and endangered species management planning. The project implements recommendations in the Middle Chattahoochee, Lower Flint-Ochlockonee, and Upper Flint Regional Water Plans and

builds on a regional water plan implementation seed grant focused on source water conversion in the Ichawaynochaway Creek Basin.

Summary of Council discussion:

- A council member asked if any of the ARPA awards in the region are directed at land application systems (LAS). It was confirmed by the planning support team that none of the awards in the Upper Flint region are LAS related. Dr. Liz Booth (GAEPD) reported that among all of the ARPA projects across the state, there are a total of 59 projects that address wastewater systems. Of those projects, 5 projects involve LAS; 3 of those projects involve rehabilitation or expansion (Fitzgerald, Lowndes County, and Uvalda), and 2 projects replace an existing LAS (Moultrie and Dawsonville).
- A council member asked if a wastewater project in Plains is funded by ARPA or another source. It was noted that it is not included in the list of Water and Infrastructure ARPA projects in this region.

Next Steps in Plan Development

Corinne Valentine (Black & Veatch) presented the next steps in plan development. She noted that the plan was last updated in 2017. She stated that the next plan draft should be presented in August to allow time for GAEPD review, public notification and comment, and finalization by the end of 2022. She mentioned the current focus for plan updates includes:

- Section 1: Introduction
- Section 2: Planning region information
- Section 4: Water and Wastewater Forecasts

Other sections will be updated as resource assessments are finalized and based on the Council's discussion of the Management Practices and Recommendations to the State, and other edits as needed based on Council discussions. Council members were invited to join the Plan Review Committee to assist in reviewing revised plan documents and making recommendations to the Council on edits.

Next, Kristin asked Council Members to consider joining an Inter-Council Coordination Committee that will address planning across regions. In this case, the group will consider the Metro Water District plan, as well as the plans of the Middle Chattahoochee and Lower Flint-

Ochlockonee Councils. The Council currently has a set of joint recommendations with those two Councils that will need to be considered for updates. *Donald Chase and Brant Keller expressed interest in the Inter-council Committee.*

Overview of Resource Assessments

Kristin Rowles (GWPPC) provided an overview of the resource assessments and a short discussion of why and how the planning process uses models. She also reviewed the schedule for the presentation of resource assessment model results, with some at this Council meeting and some at the next meeting. She encouraged the Council members to consider whether the resource assessments point to areas they would like to discuss as a Council and consider how particular concerns are addressed in the regional water plan. She also asked them to think about the metrics that we use to evaluate resource conditions. She encouraged the Council members to ask questions throughout the discussion of the resource assessment models.

Groundwater Availability Assessment

Christine Voudy (GAEPD) provided an overview on the groundwater availability assessment and covered five metrics for sustainable yield. She reviewed the results for several aquifers in the region. Her slides are available in the meeting materials. The results generally compare groundwater withdrawals to sustainable yield estimates. Her slides are available in the project materials on the Council website.

Council discussion followed Christine's presentation:

- A council member asked how to interpret the range given for sustainable yield estimates. Christine said that high end of the range assumes an even distribution of wells across the region, while the low end increases pumping at existing wells. She suggested that, in a general sense, closer to the low end is probably a better overall guide, but true assessment is highly dependent on the location of wells. In permitting, GAEPD looks at things on a case-by-case basis., In doing so, the agency considers sustainable yield estimates, but also looks at potential local impacts closely.
- A council member asked how unpermitted wells (those withdrawing less than 100,00 gallons per day) are accounted for in the resource assessment. Christine explained that private wells (non-agricultural) must submit monthly operating reports, and these are estimated in the model. The models do not include small residential well systems and agricultural wells below the permit threshold.

- A council member asked about recharge areas for each of the aquifers. Christine said that these are shown as the outcrop areas in green on the slides. An overall map of aquifer recharge areas is available on the GAEPD website.
- A council member asked for more explanation about the leakance values used between aquifer layers in the models. Leakance is a calculation of the model. Generally, it is a very small number within a range associated with a confining layer. Christine will follow up on this topic.
- For the Cretaceous aquifer, members noted drawdown concerns that limited sustainable yield for Layers 5 and 6 during peak season withdrawals. Layer 6 did not show full recovery after a peak season at high withdrawal rates. Members also noted water quality issues expected with Layer 7 withdrawals.
- A council member remarked on the importance of well location on modeling results.
- Some council members expressed concern about availability of groundwater for private landowners and the need for access to due diligence information regarding water resources.
- A council member commended GAEPD for the information provided from continued efforts with the resource assessment to better define aquifer availability and usage concerns.

Vision & Goals – Committee Report

Council Vice Chair Raines Jordan presented the Vision and Goals recommendations of the Plan Review Committee. The committee met twice and discussed a number of topics, including the resilience and sustainability concepts they were considering for the update. The committee reaffirmed the existing vision statement and recommended keeping it as written:

The Upper Flint Water Planning Council's purpose is to provide guidance, leadership and education on water resource utilization within the region. Through cooperation among stakeholders, implementation of the Council's plan will support sustainable management of the region's water resources, benefit public health and natural ecosystems, support the State's economy, and enhance the quality of life for its citizens.

Next, Raines reviewed the committee's proposed revisions to the goals. The committee recommended some edits to the existing goals for readability, to be inclusive of all water resources in the region, to more accurately reflect the Council's role, to be proactive, and to address resilience and sustainability. The following are the committee's recommended goals, with edits marked:

1. Lead the development and implementation of water resource policy in this region and work together with the state and federal government and with the other regional water planning councils to ensure that the welfare and needs of our region are met.
2. Enhance public understanding of water resources and ~~provide stakeholders with an~~ opportunities for input into regional water policy.
3. Maintain and strive to improve the ~~quality and quantity~~ resilience and sustainability of our water resources ~~in order~~ to protect natural ecosystems and public health.
4. ~~Manage~~ Sustain water resources sustainably through the three "C's" – conserving, capturing and controlling water – ~~in order to provide for to~~ support the needs of all water users in the region (agriculture, utilities, residential, commercial, industry, forestry, and recreation).
5. Sustain the region's aquifers and surface waters ~~in a way that will continue to~~ and support the economic activities of the Upper Flint Water Planning Region and the economy of the State of Georgia.
6. Ensure that actions taken by this Council ~~do not impede~~ support the agriculture and forestry-based economy of this region.

Gordon Rogers made a motion to adopt the committee's recommendation regarding the vision and goals, seconded by Brant Keller. After some discussion, the committee's recommendations were adopted by the Council by consensus.

Surface Water Availability Assessment

Kristin introduced the Basin Environmental Assessment Model (BEAM), which is being developed to evaluate surface water availability in the region. She described how BEAM will enhance the Council's ability to consider surface water availability at a much higher level of detail. She

presented the schematic for BEAM for the ACF Basin and discussed the types of nodes at which results can be evaluated. She explained the water use and permit conditions that will be evaluated in the baseline model run. Her slides are available in the meeting materials.

Next, a video presentation by Dr. Wei Zeng (GAEPD) provided four examples of performance metrics that could be evaluated using BEAM: water supply, wastewater assimilation, recreation, and fish habitat. Dr. Zeng's slides are available in the meeting materials. Dr. Zeng asked the council for feedback on the metrics.

Members had the following comments:

- A council member asked about the difference between a reservoir and a routing reservoir. Dr. Zeng said that reservoirs consist of three different types: large multiple purpose reservoirs, privately owned power-energy reservoirs, and water supply reservoirs. A routing reservoir is a modeling mechanism to correctly model flow continuity.
- A council member asked for more explanation of overbank and overland flooding loss in the model. Dr. Zeng said that this occurs when upstream flow is higher than recorded at downstream flow gages, which sometimes happens in a flooding event. It means that water goes over onto the flood plain and either evaporates or infiltrates without direct return to the main channel.
- A council member asked what happens if there is apparent loss of flow between nodes. Dr. Zeng answered at times there are flow routing reasons why flow at a downstream gage may be less than upstream node, but that at times there is a real loss that needs to be considered in the mass balance of water flowing in that stretch of the river. Brant Keller and Gordon Rogers will follow-up with Dr. Zeng to discuss gage observations in the Upper Flint near the Carsonville gage to examine whether these observations may indicate a losing reach.

Kristin reviewed with the Council the flow metrics suggested to the Council for consideration at the last meeting by the Upper Flint River Working Group. Kristin and Dr. Zeng clarified that these are performance metrics and not flow targets. Council members confirmed they would like to see model results in terms of the performance metrics suggested for recreation (600 cfs at Carsonville) and extreme low flows (100 cfs at Carsonville).

Surface Water Quality Assessment

Steve Simpson (B&V) provided an introduction to the surface water quality assessment material for Dr. Liz Booth (GAEPD). A video presentation from Dr. Booth described the changes in water

quality standards from the Triennial Review process, the assessment of impaired waters, and the water quality resource assessment including modeling approaches and types of results. Her slides are available in the meeting materials.

Council discussion addressed the following:

- A council member asked what happens when permit limits approach zero limits. Dr. Booth said that zero discharge was unlikely but acknowledged that point source treatment will continue to become more expensive due to more stringent requirements.
- A council member asked if there are any other assessments of water quality besides chemicals. Steve Simpson answered that bacteria and sediment are also assessed. About 50% of impaired waters are related to bacteria, and about 30% are related to sediment. Dr. Booth said that there is also biological monitoring for macroinvertebrates and fish communities.
- A council member asked if the use designations of stream reaches in the Upper Flint are primarily fishing and swimming. Dr. Booth answered yes, generally; there may be some lakes that have recreational designated use.
- A council member asked what contributes to low dissolved oxygen. Steve Simpson noted that point source discharges, temperature, and geographical factors, such as water slowing down if the land is flatter (which reduces reaeration), affect DO levels.
- A council member asked how municipal discharges compare with industrial discharges. Liz stated that industries are generally permitted with technology-based limits; if these limits do not achieve water quality standards, the permits will incorporate water quality based limits.
- A council member asked about the contributions of nutrients from different geographic areas in the watershed. Steve Simpson noted that the relative contribution of nutrients is different across the region depending on land use and topography, the presence or absence of point sources, and the weather conditions of the time period considered. Wet weather generally increases nutrients from nonpoint sources; this contribution decreases during dry conditions. The relative proportion of point source contributions in dry conditions will be higher.
- A council member asked about the cause of low dissolved oxygen in Elkins Creek (Pike County). Dr. Booth said she will look into it and report back to the Council.

Resource Assessments Wrap-Up

Kristin Rowles (GWPPC) asked the Council, based on today's presentations, if there were specific topics they would like to discuss at the next meeting to consider in revisions for the regional water plan. Council members said that they would like to review the management practices. Kristin said that it might be a good idea to reconvene the Council's committees on Water Quality and Water Quantity to discuss plan revisions. She said that she would be in touch with members in follow-up to this meeting to solicit members for various committees. *Donald Chase and Brant Keller agreed to serve on the Inter-Council Coordination committee. Beth English stated interest in the Water Quality Committee. Adam Graft indicated an interest in the Water Quantity Committee.* Kristin said that at the next meeting, the Council will focus on additional resource assessment results and reviewing management practices and recommendations in the plan.

EPD Report

Johanna Smith (GAEPD) presented a report as the Council's GAEPD liaison. She said that the Metro Water District is preparing updates to its plan. The District plans to release a draft for the Regional Water Planning Councils to review next month. Danny Johnson will be coordinating a virtual meeting to go over highlights of their Plan updates with all interested Council members sometime during mid- to late April. The Councils will be informed about this meeting when more information becomes available. The District will request a 30-day comment period so that they can receive early input from the Councils before they take their draft Plan updates to the District's Governing Board in June. The final comment period for the public on the District's plan will be in August.

The Georgia Environmental Finance Authority (GEFA) commissioned two studies of interest to the Councils that could be presented at the next meeting. This includes the Statewide Biosolids Assessment and Water Supply Redundancy study.

Johanna said that public water system audits are due March 1st.

Public Comment

There were no comments offered during the public comment period.

Adjournment

Kristin noted that a summary of the meeting would be developed and the summary, presentations, and links to the video presentations would be posted on the Council website. Chairman Chase thanked members for attending, and the meeting was adjourned.

Council Members Attending March 16, 2022 Meeting

Michael Bowens*	Jack Holbrook
Donald Chase	Raines Jordan
Brad Ellis	Brant Keller
Beth English	Bob Melvin*
Steve Fry	Lamar Perlis
Adam Graft	Gordon Rogers
Sen. Ed Harbison*	Butch Turner
Rodney Hilley*	Joel Wood

Other Attendees

Dr. Elizabeth Booth (GAEPD)*	Johanna Smith (GAEPD)
Daniel Calhoun*	Steve Simpson (B&V)
Jake Dean (B&V)	Meagan Szydzik (GWPPC)
Bert Earley (GA Forestry Commission)	Corinne Valentine (B&V)
Ben Emanuel (American Rivers)	Christine Voudy (GA EPD)
Kristin Rowles (GWPPC)*	Jennifer Welte (GAEPD)
Laura Schneider (River Valley Regional Commission)*	
Dr. Wei Zeng (GAEPD)*	

**By videoconference*