

## **Memorandum**

*To: Upper Oconee Regional Water Planning Council*

*From: Laura Hartt and Michelle Vincent, Jacobs*

*Date: September 30, 2020*

*Subject: Upper Oconee Council (UOC) Virtual Meeting (subject to Council review and approval)*

This memorandum provides the meeting summary of the Upper Oconee Regional Water Planning Council Meeting held virtually on September 30, 2020 from approximately 10:00 AM to 12:00 PM on the Zoom meeting platform.

### **1) Welcome and Introductions**

Council Chairman Melvin Davis called the meeting to order and welcomed the Council and other attendees. Chairman Davis asked all present to introduce themselves. The October 24, 2018 Council Meeting minutes and the September 30, 2020 Council Meeting draft agenda both were approved by motion, second, and then unanimous vote.

### **2) Population Projections**

Michelle Vincent (Jacobs) gave a brief overview of the Georgia Office of Planning and Budget (OPB) 2019 Population projections and how they would be incorporated into forecasting demands for planning purposes. Ms. Vincent also discussed the 2020 U.S. Census information and how that will be incorporated into future OPB projections and eventually the regional planning process. The Council was given a summary of population projections out to 2060 by County within the UOC Basin.

Question: Is 2026 the next update or will there be a 2022 update?

- Jennifer Welte (EPD): The Council plans will be updated in 2022 (using these current population projections). 2020 U.S. Census-based projections will not be available in time to use for the 2021-2 update but will be incorporated in the 2026 update.

Comments:

- Bill Ross (Council Member): It would be nice to see rate of growth by County in the population projections.
- Marilyn Hall: The Athens-Clarke County projections are very similar to the ones we are using in our capital planning.

### **3) Status of Forecasting Process**

Anna Truszczynski (EPD) discussed the status of the forecasting process being conducted by EPD and Planning Contractors with representatives of the Councils. Updates were as follows:

### ***Municipal Water Demand Forecasting***

- Hunter Bicknell (Council Member) is serving as representative of the UOC for the Municipal Forecasting Stakeholder Group
- Meetings were held April 16, 2020 and June 3, 2020; next meeting date is TBD
- Industrial forecasting will inform municipal forecasting where industries are supplied with 0.2 million gallons per day (MGD) or more by municipal systems

### ***Industrial Sector Forecasting***

- Kickoff meeting was held June 3, 2020
- Broad representation of industry groups: poultry and food processing; mining; paper and forest projects; and manufacturing
- Coordinate with GA Department of Economic Development on industry trends and available data that might inform forecast
- Draft forecasts expected by October 2020

### ***Energy Sector Forecasting***

- Kickoff meeting was held April 29, 2020; additional meetings held July 28, 2020 and August 14, 2020
- Stakeholder Group includes representation from power companies, GA Public Service Commission, and GA Environmental Finance Authority
- Purpose of stakeholder group is to provide input on methodology for estimating future water demand for thermoelectric power generation
- Group reviews/provides input on data, updated list of thermoelectric facilities; statewide energy generation estimate; and water withdrawal/consumption forecasts for each facility
- Contractors and EPD are addressing stakeholder input and finalizing the technical memorandum

### ***Agricultural Sector Forecasting***

- GA Water Planning & Policy Center (Albany State University) is updating the agricultural use forecasts
- Forecasts include irrigated land and other agricultural uses (e.g., nurseries, animal operations, and golf courses)
- Estimates of wetted acreage (based on aerial surveys and site visits) and irrigation use (i.e., crop types) are used to derive agricultural water use

Chairman Davis thanked EPD for the thorough report and update.

## **4) Municipal Forecasting Effort**

Jennifer Welte (EPD) went into more details regarding the Municipal Water and Wastewater Demand Forecasting efforts. She provided a brief overview of the methodology and shared some preliminary results, including the following details regarding water demands:

- Data collection was focused on 2019 average annual water withdrawals (as reported to EPD)
- Current municipal water use in the Upper Oconee region
  - 2019 Groundwater use: 7.1 MGD
  - 2019 Surface water use: 52.3 MGD
- Forecast public supply (through 2060) is based on updated per capita use estimates and population projections
  - 2060 Forecasted Groundwater use: 13.4 MGD (draft)
  - 2060 Forecasted Surface water use: 70.9 MGD (draft)

Ms. Welte's presentation included information on self-supplied water from groundwater wells, by county.

Question from Roger Wilhelm: How is the percent of the population that is self-supplied determined—is it based on volume or equivalent residential units (ERUs)?

- Brian Skeens (Jacobs): Assumption is 75 gallons per person, not per household. The percentage of self-supplied is the percent of the population reliant on groundwater wells. Draft municipal future supply needed is fairly close to previous estimate from last plan. The per capita demand of 75 gallons/person/day was based on EPD research.

Ms. Welte also discussed per capita water demands based on surface water use. The per capita demands have been updated, based on the recent water loss audit data reported to EPD.

Question from Jennifer Davis (Council Member): How are the water loss audits used to determine demands? Are the demands determined from audits of the entire water distribution system, or derived from audits of individual sources and then applied to the larger area?

- Ms. Welte: All public water systems serving more than 3,300 people must undergo a water loss audit. If more than one water distribution system is used to provide service, then a weighted average based on the systems within the service area is generated.

Ms. Welte also provided the following details regarding wastewater demands:

- Data collection was focused on 2019 average annual wastewater discharges (as reported to EPD)
- Current municipal wastewater flows in the Upper Oconee region (2019 annual average)
  - Point source discharges: 37.4 MGD
  - Land application system (LAS): 2.2 MGD
- Wastewater Forecast (2060), based on population projections
  - 2060 Forecasted point source discharges: 59.1 MGD (draft)
  - 2060 Forecasted LAS discharges: 3.7 MGD (draft)

Ms. Welte also discussed septic system use within the Upper Oconee region, noting that the municipal forecasting teams relied upon the 1990 U.S. Census housing characteristics data (the last census capturing information on septic use) because newer Georgia Department of Public Health (GA DPH) data was deemed less reliable for forecasting purposes. However, in three Counties (Baldwin, Clarke, and Walton), 2018 information from the GA DPH was used.

Ms. Welte then indicated that EPD welcomes additional input from the Council in order to capture Council interests and concerns. She mentioned that they had received input concerning both Walton and Oconee counties and would be incorporating that input.

Chairman Davis thanked Ms. Welte for the update.

## **5) Seed Grant Updates**

Ms. Truszczynski gave the Council an update on two Seed Grant projects:

### **(1) City of Madison, 2019: GIS mapping of water delivery and wastewater systems**

- Meets two goals supported by the 2017 Upper Oconee Regional Water Plan
  - WS-7: Continue mapping of water system assets
  - WW-5: Create a sewer system map.
- Database structure has been developed; field data collection in process this quarter
- To date, mapping complete for 100 pipes, 169 water valves, and 346 hydrants

### **(2) Albany State University, 2020: Flow-dependent benefits and values in Upper Oconee Region**

- Meets two goals supported by the 2017 Upper Oconee Regional Water Plan
  - ES-2: Ensure that management practices balance economic development, recreation, and environmental interests
  - ES-7: Identify and plan measures to ensure sustainable, adequate water supply to meet current and predicted long-term population, environmental, and economic needs.
- Compiling scientific and technical studies and building stakeholder contact list. Contact Dr. Cowie (gcowie@h2opolicycenter.org) if you would like to participate or recommend a stakeholder
- First set of stakeholder meetings in February/March 2021

Ms. Truszczynski reminded the Council that the Seed Grant application deadline was approaching soon (October 31, 2020) and that pre-application meetings needed by be completed by October 16. She encouraged the Council to contact EPD or Jacobs with any project ideas.

## **Seed Grant Update – Dr. Nandita Gaur (University of Georgia)**

Dr. Nandita Gaur gave an overview of 2020-funded Seed Grant project - septic systems GIS mapping and support in Upper Oconee region. She noted that her interest in septic systems and their contribution to water quality issues stems from an understanding that septic systems can impact both groundwater and surface water quality. Failure rates are widely estimated from as little as 1% to as high as 20%, so better data is needed. Dr. Gaur noted that 75% of Jackson County is on septic.

Dr. Gaur's project meets two goals supported by the 2017 Upper Oconee Regional Water Plan:

- WW-2: Identify areas that would benefit from being served by a centralized sewer versus septic systems
- WW-4: Identify and manage septic systems in environmentally sensitive areas. Create a septic system map.

Dr. Gaur summarized progress to date, including

- UGA hiring of a graduate student and undergraduate student techs for the project
- Jackson County purchasing a laptop and scanner
- Initial map scanning begun at the Jefferson Environmental Health Office
- Conversations with WelSTROM and Jackson County initiated

Next steps are to digitize septic inspection permits to create a GIS layer for Jackson County. Permit records will be entered into the Digital Health Database which will connect directly to WelSTROM (<http://www.welstrom.com>).

Comment from Bryce Jaeck: Might be beneficial to show soil data along with septic tank permit layers.

Chairman Davis thanked the speakers. He then reminded the Council that Seed Grant application deadline is the 31<sup>st</sup> of October, and the deadline for pre-application meetings is October 16<sup>th</sup>.

## **6) Metro North Georgia Water Planning District Updates**

Mr. Danny Johnson gave an update on the Metropolitan North Georgia Water Planning District (District) 5-year plan update as well as a summary of the Biosolids Management Survey Project. Mr. Johnson noted that the District follows the same 5-year update cycle as the adjacent regional councils, but that the authority for doing so falls under different legislation. He also noted that the District has selected the contractor (Jacobs) and that stakeholder work begins in November.

Mr. Johnson mentioned that the District has developed some technical resources that can be used by any council, including:

- Residential water demand studies
- Drought response options menu: provide possible management practices in line with EPD requirements

- Watershed resilience evaluation: help small systems increase baseflow and therefore resilience to drought
- Cost-benefit analysis: to help determine the economic impacts of proposed management recommendations on local governments

Mr. Johnson indicated that he is available to attend future Council meetings to update the group as the District's plan update proceeds.

Chairman Davis thanks Mr. Johnson for his report, indicating that it's always appreciated when adjoining Councils offer updates on what they are doing.

Mr. Johnson also presenting the results of a statewide survey on biosolids management in the state. Within the Upper Oconee Basin, he noted that approximately half of biosolid disposal occurs by land fill, a quarter by land application, and a quarter by composting.

Mr. Johnson then outlined future trends in biosolids management, indicating that regulatory pressure will continue with respect to landfilling. He also indicated that while land application remains an option, there are public perception concerns, water contamination (PFAS, PFOA) concerns, and land availability constraints. Incineration involves air quality, cost, and ash disposal issues. Consequently, Mr. Johnson anticipates that advanced drying technology may become more cost-effective and offer beneficial reuse options. He also indicated that regional solutions (e.g., regional composting) and GEFA funding for regional approaches are being considered.

## **7) Planning Timeline & Council Appointments Update/Discussion**

Ms. Welte shared with the Council some next steps. The District is targeting December 2022 for completion of their 5-year update. Traditionally, other regional councils would be targeting June 2022 for their 5-year updates. In order to align with the District, Ms. Welte stated that the regional councils will coordinate with the District to stay on the same time frame. Currently, EPD is finalizing the schedule for the plan update process and will provide that schedule to the Council Chairs to help guide the next Council meeting.

Ms. Welte noted that the forecasting efforts would be wrapping up by the end of 2020, so EPD will have more information to share with the Council during the first quarter of 2021. She also noted that updates were being made to the surface water availability resource assessment modeling tools to incorporate more nodes for higher resolution. Ms. Welte informed the Council that a focus group was being formed for the Oconee, Ocmulgee, and Altamaha basins to solicit feedback on the model and its preliminary output.

Ms. Welte noted that several participants in the meeting were interested in appointment to the Council. She indicated that EPD is continuing to work closely with the Governor's office on Council

appointments, however the appointments process has been delayed. EPD thanks the Council for their patience with the process and appreciates their assistance.

## **8) Public Comment**

Chairman Davis asked if there were any comments from members of the public or local officials. Hearing none, the Chairman moved forward with wrap up.

## **9) Next Steps/Wrap Up/Adjourn**

Chairman Davis thanked the meeting organizers and the speakers. He reiterated the October deadlines for seed grants, and contact information for planning contractors and EPD.

Chairman Davis adjourned the meeting at approximately 11:35 AM.

## **Meeting Attendance**

### Council Members

- Melvin Davis (Chairman)
- Pat Graham (Vice-Chair)
- Hunter Bicknell
- Stuart A. Cofer
- Jennifer Davis
- Keith Hill (proxy for Linda S. Gantt) – GA Power
- Kevin Little
- Rabun Neal
- Bill Ross

### Georgia EPD Staff

- Ania Truszczynski
- Jennifer Welte

### Public Attendees

- Nancy Bobbitt, U.S. Senator Kelly Loeffler's Office
- Brandi Carr, UGA
- Gail Cowie, GA Water Planning and Policy Center
- Jimmy Davis, City of Monroe
- Robert Farris, Georgia Forestry Foundation
- Dr. Nandita Gaur, UGA
- Marilyn Hall, Athens-Clarke County
- Bryce Jaeck, City of Madison
- Danny Johnson, Metro District

- Cassidy Lord, Upper Oconee Watershed Network
- Paul McDaniel, GA Forestry Commission
- Christine McKay, USEPA
- Rodney Middlebrooks, City of Monroe
- Lee Smith, public
- Davis Warnell, U.S. Senator Kelly Loeffler's Office
- Roger Wilhelm, City of Winder
- Scott Griffith
- Brandon Wanner

Planning Contractors

- Laura Hartt, Jacobs
- Michelle Vincent, Jacobs
- Brian Skeens, Jacobs
- Ashley Reid, CDM Smith