

To: Middle Ocmulgee Regional Water Planning Council

From: Laura Hartt and Michelle Vincent, Jacobs

Date: August 4, 2020

Subject: Middle Ocmulgee (MOC) Regional Water Planning Council Meeting Summary

Welcome and Council Business

Chairman Elmo Richardson called the meeting to order. Prior meeting minutes (June 6, 2019) were finalized but official vote to approve did not take place, due to lack of a quorum. June 2019 meeting minutes along with the current (August 4, 2020) meeting minutes will be approved at the next Council meeting. No corrections or suggestions were submitted by those Council members present.

Chairman Richardson, upon hearing no changes from the floor, declared the agenda approved.

EPD Modeling Projects Updates

Alternative Flow Regimes Pilot Study Update

As previously requested by the Council, Wei Zeng (EPD) provided the Council with an update on the Alternative Flow Regime Pilot Study. Since completion of the study, EPD has applied the methodology to evaluate alternative flows elsewhere in the state, including:

- The cities of Fairburn, Palmetto, and Union City used a similar approach to evaluate the impacts of withdrawals on fish habitat, recreation, and West Point Reservoir
- EPD used a similar approach in its Clean Water Act Section 401 water quality certification for the Indian Creek reservoir

BEAM modeling effort

Mr. Zeng provided the Council with an update on EPD's efforts to enhance the spatial resolution of the upcoming surface water availability resource assessments. He noted that the Council previously raised concerns over the limited numbers and locations of nodes used in the assessments. To address these concerns, EPD expanded the number of nodes for the assessments to include not only the USGS gages but also all withdrawal permit locations, known water supply reservoirs, pump station to reservoirs, and discharge locations (NPDES outfalls).

The enhanced resolution will aid EPD in assessing local water supply challenges as well as downstream impacts of new facilities and permit modifications.

Chairman Richardson noted that progress had been made but stated that it had taken a while to get there. Council Member Tony Rojas asked about the level of spatial resolution. Mr. Zeng responded that whereas before the assessments involved 15-20 nodes across the basin, the new models include a few hundred nodes. Jennifer Welte (EPD) asked Mr. Zeng to clarify how agriculture withdrawals were addressed. Mr. Zeng responded that EPD relies on EPD's wetted acreage database, which provides a basis for statewide assessment of agricultural water use. That information is coupled with agricultural metering data that provides irrigation depths which can be used to determine the volume of water applied over a given area.

Lloyd Shoals Dam/Lake Jackson FERC Licensing Update

Ms. Courtenay O'Mara (Southern Company) gave the Council an update on the Lloyd Shoals Dam/Lake Jackson FERC relicensing process. The last public meeting for this relicensing effort was held on July 29, 2020. At this meeting Southern Company provided the public with an overview of field studies conducted to date concerning flows needed for recreational access, natural resources, water quality, hydropower operations, and other uses.

The project is considered a modified run-of-river, with Southern Company proposing to maintain the same downstream flows as approved under the prior permit, namely 400 cfs or the inflow, whichever is the lower flow. Southern Company examined the impacts of the recommended operations on:

- Recreation, land use
- Terrestrial, wetland, riparian resources
- Rare, threatened, endangered species
- Water resources (quantity and quality)
- Fish & aquatic resources
- American eel abundance and upstream movements
- Geology and soils (erosion/docks)
- Cultural resources (Indian, dam/powerhouse structures)

Southern Company conducted recreational surveys but missed some dates due to Covid-19. Preliminary results suggest that current parking and other facilities are sufficient to support recreational use extending out 40 years.

Southern Company noted that while no federally listed species were in the project area, other species of concern were present, including robust redhorse, bald eagle, Altamaha arc mussel, Savannah lilliput, Altamaha shiner, and shoal bass.

Southern Company provided the Council with the relicensing timeline, noting the following dates and actions:

- September 14, 2020: Stakeholders can submit input regarding any study plan revisions or new studies they would like to see;
- August 3, 2021: Southern Company's preliminary licensing proposal goes to FERC for review;
- November 1, 2021: Comments on the preliminary license are due;
- December 31, 2021: Southern Company files license application;
- December 31, 2023: Final license decision.

Mr. Rojas asked whether Southern Company was examining silting up of the reservoir and its impact on reservoir capacity.

Ms. O'Mara responded that the issue was being addressed through the geology and soils study but was limited in terms of historic data. Southern Company is examining aerial surveys over time, focusing on where the upper part of the reservoir transitions from river to lake. Southern Company has not done any bathymetry to estimate volume, primarily because the project is not a water storage project. Ms. O'Mara also noted that there were no issues from their perspective as long as there is enough volume in front of the structure to generate power.

Mr. Rojas also asked whether the high river flows of late were due to increased power generation or rainfall.

Ms. O'Mara responded that precipitation amounts have been higher and as a result, power generation is above the 20-year average. She further indicated that the upcoming year has trended towards more average precipitation amounts.

Population Projections and Forecasting Update

Population Projections

Michelle Vincent (Jacobs) gave a brief overview of the approach EPD is using for population projections. The state has projected population growth in 2010, 2015, and 2019. Each subsequent projection showed slower rate of population growth compared to the prior one. Ms. Vincent noted that the 2020 U.S. Census Bureau data would not be available in time to inform the current plan update process.

Water Demand Forecasting

Veronica Crow (EPD) gave an update on the water demands forecasting process as indicated below.

Municipal forecasting stakeholder effort

- Black & Veatch is the lead contractor
- A stakeholder group has been formed including one representative from each Council and the Metro District
- Information from the industrial forecasting effort will inform this forecast
- Private wells and municipal systems (surface and groundwater) are included
- For self-supplied water, contractor relied on 2015 data from USGS and then assumed per capita water use of 75 gallons/day with the exception of Pulaski (which assumes per capita use of 100 gpd)
- Both Bibb and Pulaski counties are projected to have a decrease in population served by self-supply by 2060

Mr. Rojas asked for clarification on the units in the table depicting county-specific forecasting demands. Mr. Zeng responded that representatives of each county may request clarification on the assumptions used to produce the data. Mr. Zeng noted that during prior regional planning periods, projections could be adjusted to account for the additional input. Mr. Zeng further noted that assumptions may need to be altered, so the Council should pay attention to the assumptions.

Mr. Rojas noted that for Pulaski County, 40% of the population relies on self-supply, but as the population declines the table shows that the percentage of self-supplied water goes up.

Ms. Vincent asked if the table could be edited to reflect whether recommended changes were incorporated. Ms. Welte suggested the Council also reach out to Marci Seleb to see if she has any perspectives or input regarding the forecasting for Butts County. Chairman Richardson affirmed both suggestions.

Mr. Rojas asked how data will be displayed for public utilities that manage both municipal and industrial supplies. Ms. Welte responded that EPD is working with the forecasting team to determine the best approach. She stated that one idea was to make sure that each county-specific representation includes industrial withdrawal permit information. Ms. Welte acknowledged that if the forecasts require redistributing a portion of the municipal use to the industrial use category, that redistribution will have to be incorporated in the BEAM model to make sure that use is accounted for at the right location. Ms. Welte reiterated that the Council will have an opportunity to talk about how to reflect industrial use in the plan.

Ms. Craw noted that water transfers between municipal systems were being factored into the forecast, relying on data from 2019. For the MOC Planning Region, the forecasting team looked at three transfers--Macon to Monroe, Butts County to Monroe, and Griffin (in the Flint Basin) to Lamar County. Inter-county transfers less than 0.1 MGD were not being considered.

Ms. Craw then described how municipal wastewater demands were being addressed. Populations served by septic versus centralized treatment are identified. Percent of population on septic will be held constant for forecasting purposes unless stakeholders

provide additional input. The percentage of population on septic was derived from 2018 DPH data unless the data was deemed inappropriate to use; in the latter case, data from the 1990 U.S. Census was used. For estimates of municipally treated wastewater, the data was focused on 2019 average annual wastewater discharges, per EPD records. The forecast of future municipal wastewater flow values will be informed by the updated population projections discussed earlier.

Mr. Rojas asked how the forecasters are addressing situations where population size may decrease but commercial or industrial use does not? Ms. Welte noted that it was a good observation and she would check with the forecasting team on how such a scenario would be addressed.

Industrial forecasting

- CDM Smith is the contractor lead
- Stakeholders include industry groups, representative from industrial facilities, and the Georgia Economic Development Authority
- The Industrial Stakeholder Group has been divided into four subgroups (mining, poultry/food processing; pulp and paper; and manufacturing)
- This sector forecast is expected to be completed by October 2020
- Current permitted industrial surface water withdrawals in the Middle Ocmulgee region total 12.7 mgd in 2019
 - Permitted withdrawals include paper and mining facilities
- Current permitted industrial groundwater withdrawals in the Middle Ocmulgee region total 8.8 mgd in 2019
 - Permitted withdrawals include paper, mining, manufacturing, and poultry processing facilities

Energy forecasting

- CDM Smith is the contractor lead
- Hydropower is included in this forecast because it's non-consumptive
- The first stakeholder group meeting was held on April 29, 2020
- In late August 2020, the advisory group will meet to review stakeholder recommendations
- Note: Unit 4 of Plant Scherer is reported to be closing in January 2022, which may decrease demands in the MOC Region

Agricultural

- Georgia Water Planning and Policy Center at Albany State University is the contractor lead
- Includes irrigated land, nurseries, animal operations, and golf courses
- Incorporates wetted acreage, amount of irrigation water applied, and crop type
- Updated future demands expected by March 2021

Break

Ms. Vincent asked for clarification on how the Council should provide input on projections and demands. Ms. Welte confirmed that Council members could reach out to Steve Simpson at Black and Veatch, the Planning Contractors, or EPD staff.

Metro District Update (Danny Johnson, Metropolitan North Georgia Water Planning District/Atlanta Regional Commission)

Plan updates

Mr. Danny Johnson (Metro North Georgia Water Planning District) gave an update on the current status of the Metro District's planning process. He noted that the contract for updating the plan was awarded on August 26 to Jacobs Engineering.

Contractors and Metro District staff have begun work on several of the forecasts and will continue work evaluating water and wastewater treatment capacity, incorporating any planned expansions. The next plan update also will assess current Action Items and updates as necessary. New or expanded Action Items will require a cost-benefit analysis.

The update will rely on several technical resource studies, including residential water demands, drought response options for complying with EPD restrictions, and water resilience evaluation in relation to long term droughts.

The planning update process will begin this fall, with technical and forecasting work. The District will be working closely with adjacent Councils to coordinate their planning efforts. The District is currently scheduled to complete planning in 2022, in line with other Council schedules.

Biosolids Update

Mr. Johnson gave a presentation to the Council on biosolids, discussing the disposal of biosolids produced from wastewater treatment processes. Biosolids are traditionally disposed of in landfills and still contain 80-95% liquid content when they go to a landfill. Disposal in landfills has become difficult and costly due to slope instability caused by high liquid content.

In 2014, two landfills in Georgia, Pine Ridge and Eagle Point, began showing signs of slope failure. In 2018, Eagle Point was placed under consent decree by EPD. Almost all Metro District water utilities have relied on this landfill for disposal of biosolids but have been turned away because of the consent decree. Consequently, the cost per unit for biosolid disposal began doubling and even tripling for utilities. The Georgia Association of Water Professionals (GAWP) has worked with the Metro District to create a survey to determine the amount of biosolids generated, how these biosolids are managed, and how they are disposed. A total of 73 communities including 127 facilities provided data for the survey.

Mr. Johnson said the survey captured most of the data available from facilities in the MOC Region.

Mr. Rojas asked if these biosolids were all generated from wastewater treatment. Mr. Johnson responded that they were.

Mr. Johnson noted that in the MOC Region, land application represents a large percentage on the biosolid disposal. He indicated that it can be an effective disposal method, but land application has many challenges including a negative public perception. He also noted there may be future regulatory hurdles to overcome.

Although less prevalent in the MOC Region, Mr. Johnson mentioned incineration as another possible disposal method, again noting key challenges such as compliance with air quality regulations.

Mr. Rojas asked if advance drying is cost effective relative to landfill disposal. Mr. Johnson responded that landfill costs used to be around \$40/ton and have now reached anywhere from \$80-\$115/ton. Given the higher cost of disposal, Mr. Johnson indicated that the purchase of an advance drier might make financial sense.

Mr. Rojas asked if the energy sources for advance drying were electric or natural gas. Mr. Johnson indicated that both options were available.

Mr. Rojas commented that one of the challenges with class A beneficial uses is that if you want to use biosolids as fertilizer you have to get approval through the Department of Agriculture. He questioned whether that was a disincentive. Mr. Johnson responded that it would have to be the desire of the user, i.e., to produce a sustainable product.

Mr. Johnson indicated that the next steps include GEFA developing a statewide biosolids plan, which also will identify technologies that could be cost-effective.

Grant Updates (Joy Hinkle, EPD)

Update on current/past grant projects

The MOC Region has one current seed grant project that was originally intended to sample and locate sources of bromide in the region. Since no bromide was detected, no source tracing could be implemented. With Council approval, the project was refocused to investigate total organic carbon & microplastics in Lake Jackson. Field work for the project is currently on hold, due to public health concerns. The project is also reorganizing to include other sources of impairment. Additional funding was secured (matching Butts County purchase of laboratory supplies). Initial sampling is scheduled to begin in October 2020.

Grant program schedule and future grant projects

Joy Hinkle (EPD) provided an update on Seed Grant availability and the schedule for applications. She noted that match requirements remain the same, i.e., 40% of total project cost must be a local match and 10% of that must be a cash match. There is no limit on the number of applications a Council can submit; however, each submittal must be coordinated with the Council and must include a letter of support from the Council Chair.

A “pre-application” meeting to discuss the project must be scheduled with EPD on or before October 16. The application deadline is October 31, 2020. Ms. Vincent noted she would be reaching out to the Council to solicit ideas for potential projects, or Council members may contact her or EPD to discuss.

Wrap Up and Next Steps

Ms. Vincent stated that she would be contacting Council members at a future date to determine availability for the next Council meeting. Chairman Richardson indicated that sometime in January or February 2021 would be preferable. The Chairman noted that he was disappointed in the poor attendance, given how much information was shared with the Council over a brief period of time. He also indicated that he would be following up with those members of the Council absent from the meeting.

Public Comments/Local Official Comments

Ms. Vincent asked if there were any public comments. There were none.

Mr. Rojas noted the passage of Georgia Senate Bill 445, which allows water and sewer authorities that have contracts with local governments to provide stormwater services or to operate stormwater utilities on behalf of local governments.

The meeting adjourned at approximately 3:20 pm.

Meeting Participants

Council

- Ben Copeland, Jr. (Vice-Chair)
- Elmo Richardson (Chairman)
- Jason Briley
- Mike Bilderback
- Robert Dickey
- Tony Rojas

EPD

- Jennifer Welte
- Joy Hinkle
- Veronica Crow
- Wei Zeng

Contractors

- Laura Hartt (Jacobs)
- Michelle Vincent (Jacobs)
- Kristin Rowles (Policy Works LLC)

Public/Agency Partners

- Mark Wyzalek (Macon Water Authority)
- Brandon Baker (GA-DNR)
- Chris Stanley (Newton County)
- Courtenay O'Mara (Southern Company)
- Danny Johnson (MNGWPD)
- Deon Tucker (Southern Company)
- Greg Cherry (USGS)
- Jaime Painter (USGS)
- John Joiner (USGS)
- Liz Fabian (Mercer University)
- Melissa Crabbe (Southern Company)
- Mike Hopkins (Newton County Water and Sewerage Authority)
- Paul McDaniel (GA Forestry Commission)
- Sarah Nottingham (City of Perry - Stormwater)