

## Memorandum

*To: Middle Ocmulgee Regional Water Planning Council*

*From: Ted Hendrickx, Georgia Environmental Protection Division  
Michelle Vincent and Jennifer Stewart, Jacobs*

*Date: May 18, 2016*

*Subject: Council Meeting 1 Summary  
Middle Ocmulgee Regional Council  
Regional Water Plan Review and Revision Process*

This memorandum provides the meeting summary of the Middle Ocmulgee Regional Water Planning Council Meeting 1, held on March 30, 2016 at the Middle Georgia Regional Commission (MGRC) in Macon, Georgia. The meeting began at 9:35 AM. Brief adjustment to the agenda – lunch was a working lunch so the lunch break is abbreviated.

### **1) Welcome and Introductions/Approve Agenda**

Council Chairman Elmo Richardson called the meeting to order and thanked members and guests for attending.

Ted Hendrickx introduced Jennifer Welte and Tim Cash of Georgia Environmental Protection Division (EPD).

Michelle Vincent, the Planning Contractor (PC), introduced Zakiya Seymour and Jennifer Stewart of Jacobs.

Chairman Richardson asked Council Members and guests to introduce themselves (see the end of this meeting summary for a list of attendees).

Chairman Richardson polled for quorum – 9 members present (1 member joined late). Chairman Richardson polled for consensus to approve the prior meeting's minutes and to approve this meeting's agenda due to lack of quorum. A consensus was achieved to approve both.

### **2) Regional Water Planning Overview/Schedule**

The PC presented the following information:

#### Brief Review of Regional Water Planning Process

- An overview of the planning areas, key contacts, and contractors supporting those areas.
- Key water planning individuals from Georgia EPD and the Planning Contractor team.

- Key elements of the planning process.

#### Schedule for 2016-2017

- Timeline for completing these elements and the Regional Water Plan revision.
- Joint Council meeting is scheduled for June 23, 2016 in Dublin, GA.
- Addendum: The Joint Council meeting for the eastern councils will held at the DuBose Porter Center, Oconee Fall Line Technical College, 560 Pinehill Road, Dublin, GA 31021.

**Question:** A Council Member (CM) asked if the plan will look like it did last time.

**Answer:** Yes, we are not changing much of the plan, or the document format, only updating relevant information. .

#### Review of Vision and Goals

- PC provided a summary of the regional vision and goals with a reminder that these should be kept in mind as new information is developed to ensure that the findings of the water plan are consistent with the vision and goals for the region.

PC asked if anything has changed that requires us to revisit the goals, and opened the floor to discussion. Chairman Richardson also asked for discussion.

#### **Comments:**

- One CM noted that the Council got the vision and goals right during the first round of planning.
- A guest brought up issues related to uranium in parts of the planning council area, and said that more than 1,000 wells had been tested. Radon in water is another issue and wells are going to be tested for both. The guest also noted that very little work has been done in this area and there are people with serious health issues and all counties above the fall line have a chance of having similar issues and problem is not ending, probably only beginning. Chairman Richardson responded that these topics were discussed at length when going through the plan since it was an issue for air quality and residential wells. He also noted that Monroe County has been extending water lines to the areas with these problems and Macon Water Authority has provided the source for those areas. CM says water rates were reduced for Monroe County. Chairman Richardson also noted that this issue is being looked at in Lamar County, the City of Barnesville, Butts County and in other areas.
- There was a discussion about data gaps and the need for additional planning nodes within the Middle Ocmulgee Council area. One CM commented that quantity and quality decisions result from data, but the two planning nodes (below Lake Jackson and Lumber City) do not provide enough data. EPD said that a synthetic planning node will be established at the Macon node to provide data for resource assessments and other

forecasts (such as agricultural water use), And establishing a new gage now in the region will not have a sufficient period of record that would provide meaningful information for modeling purposes. Chairman Richardson says we have been talking about new gage since 2009, and a CM noted that the Council has recommended another gage. A CM noted that the Council should work with EPD to find an appropriate location for the gage and a budget. CM says we helped pay for Macon gage because it's important for the community. EPD noted that maintenance and long term cost can be more significant than the installation cost. The Council also discussed the existing gage at the MLK Bridge in Macon, and a CM noted that Macon withdraws water above that gage and returns wastewater below it, which results in the information at that gage missing large amounts of reclaimed water. Another CM noted an existing gage at Hawkinsville with a gap in record.

**Question:** CM asked if a 319 grant could pay for an additional node in the region.

**Answer:** No, the Section 319(h) grants are Federal grants to support nonpoint source planning and implementation, and would likely not be appropriate for monitoring, or installing gages that would support an additional node.

Chairman Richardson said this does not affect goals but is a major issue with other planning elements and monitoring (dissolved oxygen).

Consensus of the Council Members present was that goals do not need to be changed at this time.

#### Review/Updates to MOA and Operating Procedures

- The PC led the Council through a review of the Memorandum of Agreement (MOA) executed during the development of the 2011 plans (signed by the Council, EPD, and Georgia Department of Community Affairs); the Operating Procedures and Rules for Meetings; and the Council's Public Involvement Plan.
- The MOA addresses Council responsibilities, EPD responsibilities, and Department of Community Affairs responsibilities.
- The Operating Procedures are an attachment to the MOA. As written, the Operating Procedures allow for amendments to be made by the Council through coordination with EPD.
- EPD noted that they have prepared two documents for Council's consideration and provided the Council with a summary of the documents.
  - A MOA extension document was discussed. The extension document, upon execution, will officially extend the agreement and helps address the procedural topic outlined below. EPD noted, for expediency, if the Council supports the extension, it could be signed by the Chair. The Council's consensus was that they

were comfortable having Chairman Richardson sign the MOA extension on behalf of the Council.

- A revised version of the Council's Operating Procedures (Attachment A of the MOA) was discussed. The proposed revisions would allow the Council to achieve a quorum for decision making in light of the status of Council appointments and lower meeting attendance. The proposed changes would use a total number of "active council members" as the basis for determining a quorum.
- The Council Members spend some time offering input on how the Council might determine a quorum. One CM recommended that all members present might constitute a quorum for voting, to present postponing action items. Other CMs recommended adding provisions for Council Members to send a proxy to the Council meetings and to enable participation via teleconference for those who had difficulty attending in person.
- EPD will take the recommendations of the Council, make additional edits to the Operating Procedures, provide them to the Chair for his review, and then distribute them via email to the Council Members for their consideration.
- EPD recommended that the Council may move forward with a consensus approval of the MOA extension document, and the Chair called for consensus. A consensus was reached on the MOA extension, and the Chair signed it on behalf of the Council.

### **3) Current Agricultural Demand Estimate and Method for Updates**

The PC introduced Mark Masters, Georgia Water Planning and Policy Center (GWPPC) at Albany State University. Mr. Masters is leading the team that is updating the agricultural water demand forecast. Mr. Masters proceeded with his presentation.

- The GWPPC is teamed with members of the University of Georgia, Agriculture and Applied Economics. Both entities were involved with the original forecast, but GWPPC is the lead entity for this round of planning.
- A review of the basic methodology from 2009-2010 used in the first round of planning was provided. The biggest drivers of agricultural water use were major irrigated crop types and "wetted acres."
- Updates will be conducted for irrigation water use and for other agricultural water demands (livestock, nursery and golf course irrigation).
- The original forecast of irrigation water demand utilized three major steps/inputs: 1) wetted acreages, 2) projection of the crops on those acres, and 3) application rates by crop.
- The initial wetted acreage information was compiled from EPD data, supplemented by information from Georgia Soil and Water Conservation Commission at selected locations

as well as a desktop analysis of aerial imagery to identify missing wetted acres. This information formed a comprehensive database of wetted acreage.

- For water use, a county-based crop acreage forecast model was created in 2010 and forecasted for 2020 to 2050.
- Crop water application rates were derived using a crop demand forecast model based on crop type, county, soil type, and climatic conditions.
- The forecasts are being updated using: 1) desktop analysis using more recent remote sensing images; 2) updated wetted acreage information from detailed mapping conducted at some locations in the Flint, Ogeechee, and Suwannee-Satilla basins; and 3) additional meter data.
- The wetted acreage database for 2015 has been completed using these sources. It also includes review and revision, where possible, of source assumptions, and updated information from EPD's permitting database.
- The estimates of current water use for livestock, nursery and golf course irrigation have also been updated, using the most recent numbers, including information on animal counts from the U.S. Department of Agriculture, National Agriculture Statistic Services.
- Preliminary results can be viewed in the Council Meeting PowerPoint. For animal agriculture statewide, the biggest change is an increase in swine production in the coastal areas. For the Middle Ocmulgee region, animal agriculture water demand was essentially the same as in the first round of planning.
- The Middle Ocmulgee horticultural water use by nurseries increased from 3.27 MGD to 6.61 MGD, with the largest increases seen in Jasper, Pulaski, and Peach counties for container nurseries and in-ground nurseries. Greenhouse acreage units decreased (2007-2014 data). The Middle Ocmulgee region had the largest increase in horticultural water use, by percent change, of any Council region in the state.

**Question:** A CM asked if pecans are irrigated using drip irrigation.

**Answer:** Mr. Masters responded that it is mostly drip, but also includes some solid set.

**Question:** A CM asked if we can know what is new vs. what is newly discovered in the updated database.

**Answer:** Mr. Masters responded that most of the irrigated acreage is new, but that those increases also reflect the fact that Georgia experienced an unusually big spike in crop prices followed by a big drop that could account for some of those acreages.

- Mr. Masters said the state heard a theme - meters and better acreage information - and that we have better agricultural use data now than in the first round of planning, and that even better data will likely be available in 2020.

- Mr. Masters said several hundred flow meters were used to calculate average water application rates for the Middle Ocmulgee region.

**Question:** CM asked if growing season is taken into account as opposed to rainfall over the entire year.

**Answer:** Mr. Masters stated that the slides show annual averages, but his team is also putting together information on monthly distributions.

**Question:** Guest asked how much water usage is being captured by meter data.

**Answer:** Mr. Masters responded that it is a large percentage but he did not have an exact number. With regards to meter data, there is a sample size in the thousands and knowledge has improved even in the last five years.

**Comments:** CM says he appreciates that the state is making investment for better information and is impressed by the updated information. Chairman Richardson agrees and says it is better than initial stages.

Council thanked Mr. Masters for his presentation.

#### **4) Section 319 (h) Georgia's Nonpoint Source Implementation Grant**

Ted Hendrickx with Georgia EPD presented this agenda item.

EPD is making money available via a special award to develop new, or revise existing, Watershed Management Plans to meet USEPA's 9 key elements. The plan will address nonpoint sources of pollution in a priority watershed in the Middle Ocmulgee region. The funding is targeted for regional councils with public entity sub grantees being the primary implementing entities. Funding will be made via sole-source contracting for eligible public entities (Regional Commissions, local governments, universities, etc.). Grants require 40% match, which may be cash or in-kind services. Each Council area is receiving funds to complete a Watershed Management Plan within the Council's boundaries.

This type of work has already been funded in the region and some plans have been developed. During the first round of planning a project in Newton County was approved for 319(h) funding. The project was to revise a TMDL implementation plan for the Little River to become a 9 key element plan.

Information was presented on priority watersheds identified in the Middle Ocmulgee region for the Council to consider for this funding opportunity. Priority watershed recommendations were based on if there are sources of impairment present, if it is an area with no existing watershed plans, and consideration of areas with current or past projects that have received 319(h) funding. Overall timeframe for project is approximately 2 years, but plan can be developed in 9-18 months. The project could start as early as June 2016.

There are not many priority watersheds without existing or planned water quality improvement projects in the Middle Ocmulgee region. EPD proposed a project focusing on Big Grocery Creek, a tributary to the Ocmulgee River, and the main stem of the Ocmulgee River as

the focus of work addressing the different sources of impairment within the priority watershed in that area. Other possibilities presented included an impaired stream section in Crawford County, another area in that county that drains to the Lower Flint council area, and the Cabin Creek watershed above High Falls Lake.

**Comments:** Chairman Richardson said MGRC is already working in the Ocmulgee area and asked if they would be interested. A MGRC representative had stepped out of the meeting but had earlier expressed willingness and interest in working on this project, and said that MGRC could provide match (cash or in kind).

Chairman Richardson asked for discussion from the council on their support of this location and sub-grantee.

CM asked for more information about other projects shown in the presentation. The PC clarified that the numbered projects (in the presentation) already have funding and EPD is looking for priority areas without current or past funded projects.

**Question:** CM asked about the Crawford County priority area.

**Answer:** The Crawford County priority area has a TMDL for a dissolved oxygen impairment, which is a difficult problem to tackle and therefore not a good candidate for a 9 key element watershed plan.

CM makes motion to approve EPD's recommended option for funding a watershed management planning project along the Ocmulgee River and the Big Grocery Creek tributary in the priority watershed near the border of Houston and Twiggs counties. The MGRC would be the grant recipient and would provide the necessary match. With no further discussion, consensus is reached.

CM asked what was done at numbered (funded) projects on slide and Mr. Hendrickx described each of the projects.

## 5) Updated Population Projections

Zakiya Seymour with Jacobs presented the following information:

- Source of information for updated population projections.
- Georgia's historical population growth over time.
- Updated state and regional population projections that also show the comparison to the Round 1 population projections.
- The methodology employed to perform the population projection updates.
- The current population projections are more in line with historic trends. PC noted that the current predicted growth for the state (as well as the region), while still showing positive growth over time, is not anticipated to increase at the rate that was predicted for Round 1. Round 1 projections were developed prior to the 2010 Census and represented an



unusually high rate of population growth when viewed in a historical context. The Round 1 projections were influenced by historical levels of in-migration and relatively high birth rates at the time the projections were developed.

- While the state's population continues to grow, it is important to recognize where the growth is occurring (i.e., urbanized areas and larger cities). Between 2010 and 2013, there was concentrated growth in Gwinnett, Fulton, and Cobb counties; however, census data showed that about half of Georgia's counties have experienced population declines. The majority of counties with declining population are considered rural counties.
- In-migration of retirees is one factor that contributes to lower birth rates.
- The population projections are updated to ensure we have the most current population projections for each round of water planning.
- For the Middle Ocmulgee region, the updated projections show an increase in population of approximately 600,000 people from 2010 through 2050, which is approximately 400,000 fewer people than was projected for 2050 in the Middle Ocmulgee region during the first round of planning.

**Comments:** CM said that population is not always a good indicator of water usage when there are large manufacturing and industrial usages that are factored into the municipal per capita water use estimates. Population can decline while water usage may increase.

**Response:** EPD reminded the Council that industrial water forecasts are driven by employment rather than population.

## 6) Municipal Water/Wastewater Forecast Updates

The PC presented the following information for municipal water forecast updates:

- Review of the Round 1 methodology used to calculate municipal water demands.
- Review of the per capita adjustment factor (average % rate of change from 2010 to 2014) that was applied to the Round 1 gallons per capita per day (gpcd) per capita values for each County to arrive at the updated gpcd values used to estimate publicly-supplied municipal water demands.
- Municipal gpcd results for the Middle Ocmulgee region. Overall, there was a small change across the region between the Round 1 and updated values (139.67 gpcd regional average value in Round 1 vs. 141.33 gpcd regional average updated value). PC stated that population is the more significant parameter in terms of driving estimates of municipal water demands.
- The PC also noted that EPD is currently taking a closer look at an additional source of information regarding County-level per capita values, and will come back to the Council with further information as that analysis progresses. The additional source of information was used when considering the 2010-2014 trends and arriving at the per capita



adjustment factors, and a current snapshot of the additional source of information, which is still under review, shows a regional average gpcd value of 149.

**Comment:** Chairman Richardson stated that part of water plan is emphasis on conservation and that some water systems have to conduct water audits. Some municipalities have discovered that conservation efforts have reduced consumption.

**Comment:** CM stated that higher gpcd values in the Middle Ocmulgee region in comparison to the Atlanta metro area could be the result of stricter conservation efforts in Atlanta or the inclusion of some industrial use in the Middle Ocmulgee gpcd values.

**Comment:** CM noted that rural systems like Monroe conduct system flushing to get rid of chlorine and flushing would increase the per capita usage even though people are not necessarily using that water. We should be careful how the numbers are interpreted and used.

**Question:** CM asked what is included in municipal water usage, and if self-supply is included.

**Answer:** Yes, self-supply is included in the municipal water demand estimates, but a different gpcd value is used for that portion of the estimate. Estimates of publicly-supplied municipal water demands would include non-revenue water and is based on total system withdrawals and not metered consumption. EPD added that they would look into the data and provide some further information for the Council.

**Comment:** A representative from the Metropolitan North Georgia Water Planning District in Atlanta stated that five years of data may not be a large enough period of time to see effects from conservation efforts and that the data the Council will consider at the ten-year mark may provide a better indicator of any trends.

**Question:** CM asks if 2010-2015 data were used to update the municipal water demand forecasts.

**Answer:** PC responded that 2010-2014 data were used to adjust the 2010 base per capita demand used in the first round of planning, and the adjusted base (at 2015) is then carried forward through the forecast horizon to 2050.

The PC then presented the following information for municipal wastewater forecast updates:

- Review of the Round 1 methodology used to estimate total municipal wastewater generation.
- Review of the methodology used to update the municipal wastewater generation forecast, and updated results by region.

**Question:** Guest asked if old method calculation was compared with new method for parallel study.

**Answer:** PC responded that this was not done due to data gaps that exist between the information available in the first round and what we currently know.

**Comment:** CM pointed out that Houston County's population went up and the municipal wastewater projections went down. Chairman Richardson asked if the Houston County municipal wastewater projections include Robins Air Force Base.

**Answer:** PC will investigate further with EPD and provide a response to the Council.

**Addendum:** There was a calculation error in the municipal wastewater projections presented to the Council for Butts and Houston Counties. The corrected municipal wastewater projections were reflected in updates that were sent to the Council and will be posted on the Council's website.

**Comment:** CM said that if there is significant population growth relying on septic systems, centralized wastewater treatment plant systems are not sized to treat septage pumped from those septic systems. The septage disposal problem is statewide.

## 7) Industrial Water/Wastewater Forecast Updates

The PC presented the following information for industrial water/wastewater forecast updates:

- How industrial water and wastewater demand forecasts were developed in Round 1, noting that employment projections were used to forecast future demands.
- Review of Round 1 industrial water demands by category and source.
- Review of Round 1 industrial wastewater flow by discharge method.
- Unless there is a significant change to industry in the region, EPD is not proposing to change the industrial forecasts during this plan update process. Updated employment projections are not available at this time.

**Comment:** CM, Coastal representative, says we cannot equate industrial production to water usage because of great improvements in conservation.

**Question:** CM asked why consumption cannot be used.

**Answer:** PC says base number is actual number and growth rate is what is estimated and used for forecasted.

**Question:** Guest asked if industries are permitted.

**Answer:** EPD says yes but permits have different reporting requirements; sometimes the reporting of wastewater flow is required, but direct measurement of the discharge flow is not required (it can be estimated).

**Comment:** CM says state political leadership should know how much water an industry uses, and especially for estimating flows for loadings on river, because their permits are based off these estimates.

**Question:** Chairman Richardson asks about Georgia Power water use and how it is captured in forecasts.

**Answer:** It is separate, in the energy section water demand forecast. Industrial only includes those categories listed in the presentation.

**Question:** CM asks why EPD is using old assumptions.

**Answer:** The PC says it is because there are no new employment projections.

The PC says slides from the presentation will be available on the Council's website and distributed via email.

## 8) Energy Forecast Updates

The PC presented the following information for energy forecast updates:

- Review of thermoelectric power facilities with water withdrawal permits in the State of Georgia.
- Review of the energy sector water demand forecasting methodology from Round 1.
- Updates to energy sector water demands are not yet complete and will be shared with the Council once available.
- There is one coal power generating facility in the region: Plant Scherer near Forsyth in Monroe County. It is the largest single generating plant in the U.S.

## 9) Metro District Update

Danny Johnson from the Metropolitan North Georgia Water Planning District gave an update on the Metro District and their planning process.

- Overview of Metro District and structure.
- EPD's role as the permitting authority and ensuring that issued permits are consistent with the Metro Plans.
- Third round of water planning, where all three plans (water supply, wastewater, and water quality) are integrated into one plan. Discussed the objective for this round of planning, including being consistent with other Regional Planning efforts. The data is much stronger now.
- Population projections – Metro using OPB projections and Atlanta Regional Commission (ARC) Research and Analytics Division projections to give two scenarios (and a spread) for planning purposes. ARC projections are lower than OPB's.

- Forecasting – Baseline based on per capita demand. Per capita has decreased substantially over last three planning cycles: 168 gpcd (2003) to 108 gpcd (2016) at the regional level. The forecasts incorporated plumbing code revisions.
- Status of current planning cycle:
  - Updating conservation action items – expanding to entire district and requiring commercial conservation programs.

**Question:** CM asked what facility Phasing Plans are.

**Answer:** Mr. Johnson responded that they make facilities aware that they need to have capacity to meet demand.

- Watershed management – Focus is on addressing nonpoint source pollution.

**Question:** CM asked about Watershed Protection Plan (WPP) requirement.

**Answer:** In 2003, the Metro District created monitoring requirements based on population, but it did not align with state requirements so they tried to align the requirements.

- Public Education and outreach is also a focus for the Metro District plan update process.
- The Draft Plan should be ready for distribution this summer. Neighboring Councils are encouraged to give Metro District feedback about the plans. The Metro District plans to host a detailed meeting for interested Council Members to dive into the details of the draft plan, and after all have had a six-week period to review, the Metro District will host a meeting or conference call to get back together and receive input from the Councils.
- Septic subcommittee started last summer. Sent a survey to all wastewater providers asking about septage (how much is accepted, is it sampled, what is the charge, what are the acceptance hours) and a copy of the results will be provided to be distributed to the Council Members. A working group has come up with ideas of how to maintain septic tanks.

**Question:** CM asks what the lowest and highest prices are for treating septage.

**Answer:** Highest is Gainesville at \$292/1,000 gal and lowest is \$65/1,000 gal at Camp Creek (Fulton).

**Question:** Guest asked if local health departments are involved.

**Answer:** Chris Kummic with the Georgia Department of Health is involved. Local boards of health have not been involved but ARC recognizes a need for their involvement.

### **10) Appointment of Subcommittee**

The PC introduced the option of appointing subcommittees for the review and revision process. Chairman Richardson indicated that technical subcommittees were needed in the first round to fill gaps, but they are not recommended at this time based on the improvements in the quality of data. The PC noted that additional details will be provided to the Councils in response to questions raised at the meeting, and to provide the updated energy sector water demand forecast once completed. Following that dissemination, the PC will offer a conference call time to the Council to help answer any further questions.

### **11) Public Comment/Local Official Comment**

No further public comments were made during the allotted time.

### **12) Wrap Up/Council Meeting 2 Preview**

Chairman Richardson and the PC concluded the meeting.

The joint meeting will take place June 23, 2016, in Dublin, GA.

The council meeting adjourned at 1:53 PM.

### **13) Meeting Attendance**

#### Middle Ocmulgee Regional Water Planning Council Members in attendance:

- Elmo A. Richardson (Chair)
- Ben Copeland, Jr. (Vice Chair)
- Peter Banks
- Jerry D. Davis
- Charles F. Harris
- Sam Hart
- Tom McMichael
- Lawrence E. McSwain
- Tony Rojas
- Ron Shipman (proxy for Thomas Wicker)

#### Georgia EPD Representatives in attendance:

- Tim Cash
- Ted Hendrickx
- Jennifer Welte

#### Reginal Water Council Planning Contractors in attendance:

- Zakiya Seymour
- Jennifer Stewart
- Michelle Vincent

Additional Presenters:

Danny Johnson, Atlanta Regional Commission

Mark Masters, Georgia Water Planning and Policy Center (GWPPC)

Public attendees:

- Brandon Baker (representing GA DNR Wildlife Resources)
- Jonathon Carroll (representing Middle Georgia Regional Commission)
- Jen Hillbun (representing Macon Bibb Altamaha Riverkeeper)
- Mike Hopkins (representing NCWSA)
- Karol Kelly (representing Bibb County Extension)
- Patti Lanford (representing GA DNR Wildlife Resources)
- Dana Lynch (representing Monroe County Extension)
- Charlotte Meeks (representing Houston County Extension)
- Phil Odom (representing Coastal Georgia Regional Water Planning Council)
- Michael Roberts (representing GEFA)
- Jenna Saxon (representing Georgia Farm Bureau)
- Adrian Wood (representing DCA)
- Mark Wyzalek (representing MWA)
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