

# **Georgia Department of Natural Resources**

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September 15, 2011

## **MEMORANDUM**

**TO:** Council Members

**FROM:** David Ashley, JJG/Jacobs  
Tai-Yi Su, AECOM  
Rachel Jones, JJG/Jacobs

**SUBJECT:** CM#1 Meeting Summary  
Middle Ocmulgee Water Planning Council Meeting

**CC:** Kevin Farrell, GA EPD  
Ted Hendrickx, GA EPD

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## **Georgia Comprehensive Statewide Water Management Plan Regional Water Planning**

### **Meeting Summary**

**Meeting Date:** September 7, 2011  
**Location:** GEMC Training Center, Smarr, Georgia

#### **1. Welcome & Introductions**

Chairman Elmo Richardson opened the meeting and welcomed the Council members and the public. He thanked the Council members for their efforts. He provided an overview of the meeting agenda, stated that the final plan is due to EPD on September 30, 2011, and that the Legislature still has a decision to make on where the State Water Planning process and the Councils go from here.

He introduced David Ashley, the Planning Contractor, and asked him to discuss the comments received during the public commenting period (May 9<sup>th</sup> through June 23<sup>rd</sup>, 2011).

#### **2. Discussions of General Comments**

Ashley thanked everyone for coming and stated that most of the comments received are general comments for all councils and are not specific to the Middle Ocmulgee Region. The Planning

Contractor has reviewed all the comments carefully and provided a summary of each comment letter/email and the proposed responses in the 11x17 handout (see attachment) for the Council members' use. The Council also received detailed comments from Les Ager and each of his comments is addressed in a separate Word document.

He reminded the group that the Water Planning Council is not a governing agency; it is an advisory group without power to legislate. The Councils can make recommendations and the Regional Water Plan has to follow EPD's guidance. He stated that a lot of comments were geared toward water policy changes that cannot be addressed in the plans. Regional Water Plans must be in accordance with current EPD guidance and regulations. He proposed discussing general comments first, then the more specific comments from Les Ager for the Middle Ocmulgee Region.

1. Farm Bureau: Ashley mentioned our plan did not recommend agricultural users switching from surface to groundwater. Therefore, NO CHANGES TO PLAN.
2. GIEC: Not directed at MOC's plan, but at EPD; mentioned that we heard Council's concerns about: 1) Resource Assessments coming late in the process; 2) assumptions of unimpaired flow and instream flow in the model; and 3) lack of planning nodes in the region. Several recommendations were already made in our plan to improve it. The Middle Ocmulgee Plan made recommendations to revisit these assumptions and to improve Resource Assessment process.

3. Georgia Power:

The water demand projections for energy production were provided by EPD up to 2017. Projections beyond 2017 are complicated by many factors. The Council does not have energy forecast information to go beyond what was provided.

EPD is developing guidance on how they will use the RWPs for permitting process. The Resource Assessments are not necessarily specific to the facility level, so the Regional Water Plans cannot be applied directly to permitting for facilities. [Note from Planning Contractor: except for the Water Quality Resource Assessment, the modeling tools will continue to be used to analyze future permit application conditions.] There is no new direction from the legislators or EPD for future Council functions. Ted Hendrickx of EPD confirmed that there is no resolution at this point. The Middle Ocmulgee Plan tried to stay consistent with usage of key terms.

4. Georgia Water Alliance:

Most comments are related to general EPD issues, not specific to individual plans. Regarding suggested language related to permitting, Ashley stated that it is optional for the Council to add the suggested language. Ashley asked if the Council would like to discuss further.

Paul Leath noted that if it does not impact the plan but will clarify the issue, then we should put it in. Chair Richardson stated that if EPD will retain the authority on permitting, adding the statement may not add value. He thinks the Plan's current content is sufficient and suggested no changes. There were no further comments and Ashley concluded that the existing language would be kept (no additional clarification).

Ashley led the discussions on unimpaired flow assumptions and stated that the Plan's current language is consistent with the Surface Water Resource Assessment (No change to the Plan).

EPD is preparing a summary of all different water plans.

5. Georgia Water Council:

Planning nodes being arbitrary: The Middle Ocmulgee Plan has specific recommendations to the State to add nodes.

Current instream flow policy: The Middle Ocmulgee Plan did not reinvent instream flow policy but made a recommendation on conducting site-specific instream flow and looking at this issue. Many other plans do not have these recommendations.

Interbasin transfer considerations: not an issue for the Middle Ocmulgee Region.

6. Larry McSwain's comments:

Ashley commended our Council member Larry McSwain for participating in a number of subcommittee meetings and helped the Council shape the language in the instream flow recommendations in the Plan. McSwain added that his comments are for general planning purposes and not particularly for the Middle Ocmulgee. He thinks our Council did a fairly good job of addressing these issues, but not all councils have the same level of effort.

7. Southern Alliance for Clean Energy: Ashley stated that EPD provided language for clarification on the Public Service Commission's involvement. Ashley read out the suggested revision to meeting attendees (see Attachment A).
8. Nature Conservancy: Ashley stated that these comments are high level comments and don't suggest any specific changes to individual plans. Tier 3 water conservation practices were recommended by the Nature Conservancy. Ashley stated that the Council recommended Tier 1 and 2, and that Tier 3 is optional. On the comment on reservoir construction, Ashley stated that if permits have been obtained for a proposed reservoir and the needs (for the reservoir) can be justified and documented, reservoir construction is a legal action for water supply purposes.
9. US Fish & Wildlife Service:

Regarding the comment that the regional water plans do not meet a basic goal of the 2004 Comprehensive State-wide Water Management planning Act, we respectfully disagree. The plan and its supplemental documents adhere to all comply with existing State and Federal laws and regulations.

Representative from Wildlife Resources Division (WRD) of the Department of Natural Resources (DNR) have been invited to make a presentation to the Council on the instream flow policies; an expert from the University of Georgia (UGA) also spoke on instream flow studies in a joint meeting hosted by EPD in December 2010 for all councils. Representatives from the WRD reviewed the plans and provided comments to EPD and the Planning Contractor. The management practices adopted by the Middle Ocmulgee Council will not adversely affect protected species.

Water saving estimates from conservation measures other than plumbing fixture replacement are very difficult to predict. There is no credible data to estimate potential industrial and commercial savings on a regional scale, nor savings from sub-metering at existing or future multi-use buildings.

The Middle Ocmulgee Plan has several non-point source pollution control management practices (WQ7-WQ11) that recommend reduction of sedimentation.

Tony Rojas: What do you think it meant by incorporating the realities of new reservoir construction?

Ashley: It may mean that permitting reservoir is difficult and few would be permitted.

McSwain: It is probably saying that putting reservoir construction as a high priority management practice is unrealistic because of the long time required for planning and permitting.

Rojas: If you wait until you need a reservoir to plan it, it is too late. The State needs to be more involved in siting and constructing regional reservoirs.

McSwain: Agree that it is a regional issue and not as much single entity issue. It (reservoir) is better planned on a regional basis. Projections made in a regional plan should help local governments decide whether a reservoir is needed.

Chair Richardson mentioned that to date there are no applicants for the \$46 million fund reserved from Georgia Environmental Finance Authority (GEFA) for reservoir construction. Ashley offered to add a paragraph regarding 404 permitting process. McSwain stated that we don't need to make changes to the Plan because the Council did not advocate for reservoir construction as a solution; there is only one planned reservoir in Newton County.

Rojas mentioned that these comments from Fish and Wildlife Service seem after the fact. They should be incorporated for future planning. Tony Bass agreed that the comments are negative. Ashley concluded that the consensus is not to add any revision. Chairman Richardson agreed that we addressed it in Section 6 of the Plan.

10. Upper Chattahoochee Keeper's comments: These comments are not specific to the region. Consensus was that EPD incorporate the comments for future update of plans. No revision is required.
11. Gleason's comment: General comments that apply more to EPD regulations and local ordinances. No revision is required.
12. Regarding the comment by Bryan Tolar (Georgia AgriBusiness Council) on reclassifying dormant permits, Rojas asked what it meant. Ashley stated that it is addressing the recent amendment (WSA) of classifying agricultural permits into three categories: active, inactive and unused permits. Tai-Yi Su added that it is part of the Water Stewardship Act and is included in our management practice– WD1 (see page 7-2, WD1, item 5).
13. Dr. Johnny Bembry's (Council member) comments: Regarding rural residential wells going dry recently versus the results of the Resource Assessment predicting "no ground water supply gap", Ashley explained that groundwater table levels typically decline during a drought. He also stated that another possible reason that a well runs out of water is that the well may not have been properly cased. The screen on the well should only be open for the aquifer it is trying to access. Chairman Richardson reiterated and explained that in northern part of Pulaski where the Cretaceous aquifer is used, a residential well may not be constructed to same standards as municipal ones and owners do not necessarily consider others. This is not an issue we can address in the region because it is a local construction issue. Ben Copeland added that typically local residential well drillers do not have equipment to drill down far enough to reach the actual aquifer and

these wells can only reach pockets of water at shallow depths. Poor construction is a big issue. Rojas noted that the reliability of a well is often related to what you are willing to pay for.

Su suggested adding an item regarding proper well construction for homeowner and well drillers to the existing Education Initiative management practice (ED1- Regional Education Programs). Chairman Richardson noted that the information on capability is out there. McSwain stated that this is a reasonable effort to increase education efforts and to address Dr. Bemby's comment. All agreed on the approach. Copeland noted that the well drillers association has a website and we could add links or information to this website.

Comments 14 to 17: Ashley re-iterated responses in Attachment A and there were no additional discussions.

#### 18. Metro Water District Comments:

Ashley discussed the comments related to the sustainable yield of Lake Jackson and the Ocmulgee River and the Council's recommendation to study the issue further. The comment from the District said "an explanation of the need for this investigation was never discussed in the Plan prior to this brief recommendation. It appears that the Council may not want DeKalb County to return water to the Chattahoochee Basin as proposed in the District Plan. GA EPD needs to resolve this policy issue and inform both the Council and the Metro Water District because the cost of returning water to the Chattahoochee will be tremendous and if there is good reason to not require that then we need to know soon." Ashley stated that the Council has a statement about being concerned with changes in future discharge conditions, and does not intend to advocate any position beyond flagging the issue. The Plan simply recommends the issue be studied further.

Bass: I am not sure we addressed this comment properly.

Rojas: Interbasin transfer is the issue. Returning treated wastewater to the Chattahoochee would be very costly.

Su: The Resource Assessments for both surface water availability and water quality follow the Metro District Plan projections and assumed that discharges exceeding a certain quantity [Note from Planning Contractor: 76 MGD] from DeKalb's wastewater treatment facilities will be returned to the Chattahoochee River. In other words, the discharge from DeKalb County to the South River is capped at 56 MGD. Section 5 (page 5-7 to 5-12) has extensive discussions on water quality impacts from the Upper Ocmulgee Basin (Metro District); the last paragraph on page 6-4 also discussed the Council's concern that changes in discharge quantity might affect water quality. The

Council's concern on "sustainable yield" of Lake Jackson is second to its concern about upstream water quality impacts. Management practice WS2 recommends studying the impacts of pollutant loadings and effects on local assimilative capacity if the "discharge quantity" changes in the future.

McSwain suggested that additional language be added to further explain the Council's request to "study" the effects.

Mark Wyzalek noted that coordination of Metro District Plan and Regional Plans must be considered by the State. There were continuous discussions on the need for further clarification of this management practice. The consensus is to have the Planning Contractor further clarify the wording of this recommendation.

### **3. Discussions of Specific Comments for the Middle Ocmulgee Region**

Les Ager's Comment for Middle Ocmulgee Regional Water Plan (see detailed responses in Attachment B)

Page 1-3: Regarding the comments on subcommittee including non-Council members:

Ashley stated that non-council members did not vote on any Council issues. The sub-committee members were invited by the Chair to help the Council because of their knowledge in the water field. There are few water "experts" in our Council (fewer than many other councils). The subcommittee voluntarily participated in reviewing information (especially Resource Assessments) and working on the Plan in a very condensed schedule.

Chair Richardson stated that notices for subcommittee meetings were publicized to the entire Council to invite additional participation. EPD was present at all subcommittee meetings. We tried to be as transparent as possible. All recommendations were brought to the Council after subcommittee meetings. Rojas and Thomas Wicker stated that the subcommittees made changes to the draft Plan based on Council member comments. Copeland said the Council benefited from having a subcommittee by being able to digest the vast amount of information and this allow the Council to produce a very informed Plan. Other councils might have concerns about how the Resource Assessment information was delivered but our Council was able to act and review as fast as possible and made informed recommendations to the full Council.

McSwain suggested modifying the language on Page 1-3 to clarify the planning process, including language explaining that the technical subcommittee made recommendations to the full Council and modify the Plan as needed based on full Council decisions. Rojas seconded.

Regarding the comment on goals, Ashley stated that the draft goals were changed based on subcommittee discussions to make it more "actionable". The changes were brought back to the full Council, voted on and approved.

Page 2-3: On clarification on terms for Lake Juliette and Juliette Dam, Ashley noted that terms have been corrected in the Plan. Wyzalek mentioned that EPD used the term John Birch dam for Juliette Dam.

Page 3-1: On Georgia Power's withdrawal, it was confirmed that Georgia Power discharges most of the non-consumptive use in the Ocmulgee River upstream of the current intake point and the discharge is regulated by an NPDES permit.

Page 3-4: Regarding grandfathered permits, Ashley explained that it is EPD's policy to not revisit permit conditions that have been issued; the permit conditions are kept the same until major changes (such as withdrawal quantity) are requested. Ashley gave an example using the Bear Creek Reservoir. (In the current drought, the Athens area would be completely out of water if they did not have that reservoir.) Annual 7Q10 is required for instream flow release below the Bear Creek dam. Rojas mentioned that sometimes they (EPD) waive the instream flow requirement in extreme weather condition and they did it during the 2007 & 2008 drought.

McSwain: This issue was not introduced to the Council until late in the planning process. The grandfathered permit issue did not come up until 6 to 8 months ago and the Council did not have sufficient information on this issue to make different recommendations on management practices. If an entity no longer needs the permit it should be revisited to see if the permit has been used or is still needed. The permitted quantity can be used downstream if it is not needed upstream. Grandfathering all permits (and their permit conditions) is not a good strategy in terms of overall resource management.

Rojas: Until the scarcity issue drives it, it is unlikely the policy on grandfathered permit condition will change. I agreed that it is more useful to analyze what is used, rather than what is permitted.

Wyzalek: If you give someone an indication that their permitted capacity will be taken away, they may have incentives to use more water just to make it look as if they need it.

Page 3-8: The DNR Wildlife Resources Division provided the language regarding fish and wildlife resources in the Region. An overview of the proposed response is included in the Attachment B.

Page 5-3: Ashley explained that Table 5-1 presented projected local capacity shortages. McSwain suggested adding clarifications to page 5-3 to emphasize the potential local shortage not shown in Resource Assessments.

Page 5-13: Ashley explained that it was not the Council's job to re-evaluate TMDL program. He reminded the Council members of the electronic ranking process in Council Meeting 7 to prioritize the management practices for non-point source pollution.

#### **4. Public Comments**

Ashley asked if the Council and the public have additional comments and there were none.

Rojas commented that most of the comments are related to natural resources.

Vice Chair Copeland mentioned that he represented the Council in a panel discussion at the Georgia Environmental Conference in late August. Copeland commended the Council for doing a good job and that the Middle Ocmulgee Region has no gaps, but has more management practices than many other Councils that have gaps. Chairman Richardson also commended the Council on doing an outstanding job. He stated that Lower Flint has some difficult issues with a large water availability gap, and that our Council is blessed with no gaps.

Wyzalek asked whether we are addressing the notion of regulated/semi-regulated stream below Macon. Su stated that our language is consistent with the Surface Water Availability Resource Assessment if the term is mentioned in the Plan. She stated that the Planning Contractor team will read through the Plan sections again to check where it applies.

William Whitten asked what an updip edge referred to on page 3-6 of the Plan. Ashley stated that it refers to the portion of the upper Coastal Plain where Floridan aquifer layers that are normally horizontal turn upward and expose groundwater to the effects of surface water flow.

There were no additional public comments.

#### **5. Vote to Approve Draft Plan for Submittal to EPD**

Chairman Richardson suggested that the Council vote to approve the plan with changes and comments discussed today.

Rojas made a motion to adopt the Plan.

Jim Ham seconded.

Barry Peters asked if this is the vote to approve the Plan. Chairman Richardson confirmed that the motion is to adopt the Plan with changes discussed in today's meeting.

The Plan was unanimously approved by the Council.

Ashley noted that the Planning Contractor will try to have a revised version to go to the Council for final review at the end of next week.

Council member and Representative (District 136, Georgia) Robert Dickey expressed appreciation for Council members' input during the 3-year process. He stressed that it is important to get the elected officials from this region to decide on where to go in this process. He commented that it is better to have grass root efforts such as this Regional Water Council to

work on water issues in this region rather than having someone from Atlanta deciding for our region; he stressed the need to keep the Plans regional because this region has completely different issues than other regions. He commented on how much he had learned through this process and pointed out the importance of getting this information to elected officials.

Chairman Richardson also voiced his frustration to the lack of participation of elected officials. He wrote a personal letter to invite all elected officials to come to the public meetings and was disappointed in the number of people who participated. He commended the Council members for having the highest participation rate of all councils. Some councils have trouble getting a quorum for their meetings.

Ham thanked Chairman Richardson for being an effective leader.

Hendrickx of EPD expressed appreciation to all Council members for their efforts. He commented that many other Councils had recently experienced decreased participation. He stated that the Assistant Branch Chief Kevin Farrell could not attend this meeting because he was called to serve Federal jury duty.

The meeting was adjourned at 11:45pm.

**Meeting Attendees**

*Council Members in attendance*

Russ Adams  
Tony Bass  
Ben Copeland Jr  
Keith Dalton  
Robert Dickey  
Richard Haddock  
Jim Ham  
Charles Harris  
Bobby Hamby  
Gator Hodges

William Lazenby  
Paul Leath  
Larry McSwain  
Hal Newberry  
Eva Persons  
Barry Peters  
Tony Rojas  
Elmo Richardson  
William Whitten  
Thomas Wicker

*Council Members not in attendance*

John Bembry  
Jason Briley  
Blair Cleveland  
Jerry Davis  
Jay Matthews

Harvey Norris  
Robert Ray  
Terry Scarborough  
Rep. David Knight  
Sen. Ross Tolleson

*Staff in attendance*

Ted Hendrickx (EPD)  
David Ashley (Jacobs JJG)  
Tai-Yi Su (AECOM)  
Rachel Jones (Jacobs JJG)

*Technical Sub-Committee in attendance*

Mike Hopkins (Newton County Water and Sewerage Authority)  
Mark Wyzalek (Macon Water Authority)  
Marianne Golmitz

*Partnering Agencies and General Public*

\*Harold West (Georgia Forestry Commission)  
\*Jimmy Evans (Georgia Department of Wildlife Resources)  
David L. Rickerson (Mayor of Danville, GA)  
Walter Rickerson (Danville Water Operator)  
John Harris (General Power)  
Linnie Supall (Fox 24)  
Perry Smith (Fox 24)  
Heather Duncan (Macon Telegraph)

*\*Indicates attendee represented a partnering agency*

**Attachments – Meeting Handouts**

***A- Proposed Responses to General Comments***

***B- Proposed Responses to Les Ager’s Comments***

**Middle Ocmulgee Regional Water Plan  
Summary of Comments Received During Public Comment Period That Require Council Consideration, with Proposed Responses  
September 1, 2011**

No	Comment Author	Comment Summary or Highlights	Proposed Response
1	Georgia Farm Bureau (Zippy Duvall, President) June 17, 2011	The letter includes discussion of already existing economic incentive for conservation in business decisions (i.e., farmers don't want to buy water if they don't really need to). In addition, the issue of property rights is brought up with respect to water use (excerpt: " <u>Landowners have a reasonable right, above the rights of other citizens, to use water located on their private property.</u> "). The letter also emphasizes that the need for additional supply is just as important as conservation in meeting the water needs of Georgians. Also discussed is how expensive it is to establish groundwater systems and that it is not a feasible solution on all properties. They support incentives and cost-share opportunities to assist farmers with voluntary transitions. Farm Bureau supports the installation of meters on agricultural wells in order to obtain data on actual water use in agricultural operations and appreciates the current cost-sharing available for conservation practices. In addition, they support the recommendation of several councils that studies be done to determine whether agriculture water use is actually 100% consumptive.	The MOC Plan already accounts for metering agricultural wells within Management Measure WD3-Promote Full Cost System Accounting, which includes the action "Investigate irrigation meter pricing, conservation oriented pricing, or other appropriate strategies for the locale" .  No plan modifications are necessary.
2	Georgia Industry Environmental Coalition (GIEC) (Gregory L. Jones, Vice Chair and Tammy R. Wyles, Chair) submitted online by Deborah Phillips June 23, 2011	The entire comment package, including attachment and figures, submitted by the Georgia Industry Environmental Coalition can be viewed at <a href="http://www.giec.org/WaterWorkgroupActivities.shtml">http://www.giec.org/WaterWorkgroupActivities.shtml</a> . In summary, the GEIC is concerned about the assumptions made in the water quality modeling, including unimpaired flow, instream flow assumption and policy, consumptive use assumptions for septic tank and land application systems, integration of 10 regional plans and the Metro plan.	Most concerns need to be addressed by EPD for future update of resource assessments and regional water plans.
3	Georgia Power (Tanya D. Blalock, Environmental Manager) June 23, 2011	Georgia Power provided comments of a general nature related to energy forecasting and water use. A summary of those comments is as follows: 1) although plans recognize that statewide energy use is projected to increase from current levels through 2050, the plans do not consistently anticipate such need for water at the region level past 2020. 2) plans anticipate future short-term energy production consumptive use declines due to more water efficient technology improvements, but do not recognize that competing regulatory and policy requirements may increase consumption over time 3) recommendation that plans include clear language stating the plans should not be used to alter the permitting standards and the EPD develop a consistent policy on this issue 4) plans do not fully recognize the requirement that permittees follow the water conservation and drought contingency plans they developed as part of the permitting process; concern is that 2 layers of requirements that essentially overlap will exist 5) recommendation that permitted rather than actual water use continue to be the basis for assessments 6) EPD should clarify the future role of water planning councils and how the future plans will be coordinated 7) EPD should ensure that plans use the same definition of key terms (i.e. gap, assimilative capacity, consumptive use) 8) plans should acknowledge that only Tier 1 demand management practices are mandatory at this time	1) Energy forecast data provided to EPD and the regional councils by the energy industry only went through 2017. 2) Nonspecific trends cannot be reliably forecasted. 3) EPD will soon publish guidance related to the plans and permitting. 4) Withdrawal permittees typically have requirements to implement routine water conservation as well as drought contingency plans, which apply to different situations. 5) Permitted capacities are compared in Section 5. Actual use is important in assessing trends and impacts to streams. 6) Most if not all regional councils have advocated for their role to continue, see page 8-6. 7) to the best of our knowledge all terminology in the MOC report is consistent with EPD guidance. 8) the MOC Plan currently recommends both Tier 1 and Tier 2 which will handle existing and upcoming regulations. This recommendation conflicts with another comment received from the Nature Conservancy – Georgia Chapter. No modifications to the plan are recommended.

No	Comment Author	Comment Summary or Highlights	Proposed Response
4	Georgia Water Alliance (Katie Kirkpatrick) June 23, 2011	<p>GWA provides recommendations that are all related to general issues that EPD must address or provide guidance to the councils. These issues include use of the plan in EPD permitting, use of unimpaired flows, reconstitution of the councils, benchmark establishment, and incorporation of plans into one document. These may require potential revisions to all plans. Specifics of recommendations are below.</p> <p>1) EPD should clearly state in each regional plan the following: "This regional water development and conservation plan shall be used to guide permitting decisions by the Georgia Environmental Protection Division but should not be considered as legally binding when developing water withdrawal and discharge permits. The Division retains the legal authority to issue permits that are consistent with state law and that consider, but may not fully conform with, this regional plan."</p> <p>2) Each water resource assessment and regional water plan should contain a clear discussion on the use of unimpaired flows and the use of the assessment. This discussion should definitively state that the assessment is for general planning purposes only and is not to be used for permitting decisions.</p> <p>3) Each regional water council should be reconstituted. Each regional water plan should include an implementation strategy with funding sources identified. These sources should not rely solely on local governments but a mix of local, state, federal and private dollars. Human capital must also be assessed and immediate action items should be included.</p> <p>4) Each regional plan should establish reasonable benchmarks by which progress can be measured. The basin plans should also offer a reasonable glide path to closing all modeled gaps, over time, to assure both water quantity and water quality for downstream users.</p> <p>5) Publish a strategy for integrating the 11 regional water plans into one document. A rationale should also be developed demonstrating that the plans have met the long-term water needs of Georgia. In conclusion, Georgia must remain a competitive state and remain open for business. Perception by our peers and critics is that Georgia is out of water. These plans are a critical link to demonstrating that Georgia is taking proactive steps to ensure adequate water resources for our water future.</p>	<p>1) Discuss with Council on whether to add language in Section 7 regarding permitting guidance</p> <p>2) Discuss with Council on whether to add discussion on the use of unimpaired flow. Suggest that discussions be brief and put in a separate text box (no modifications to the main text); support that direct results of the resource assessment not to be used for permitting decisions, but for planning purposes.</p> <p>3) MOC supports the reconstitution of regional water councils; MOC plan points out potential funding sources in Section 7.2.2; Human capital items are difficult to estimate on a local level, but the State (EPD) can consider adding dedicated staff for regional water plan and local coordination.</p> <p>4) The MOC plan includes general benchmarks (by practice type) for measuring progress, see Table 8-1;</p> <p>5) MOC Plan suggests an outreach/education effort (Section 7.4) to communicate the availability of water supply for regions without "water availability gap".</p>
5	Georgia Water Coalition June 23, 2011	<p>The general concerns and recommendations contained in the letter are as follows:</p> <ul style="list-style-type: none"> <li>- including at least one public meeting solely for the purpose of presenting information, soliciting and answering public queries and accepting public comments.</li> <li>- clarification of the plan's legal effect by future legislation that empowers regional councils to issue binding policies</li> <li>- water planning that follows river basin boundaries, not geopolitical boundaries</li> </ul> <p>Timing and Quality of Information Provided to Regional Water Councils:</p> <ul style="list-style-type: none"> <li>- Information provided to the regional water councils was poorly organized, both as to the content of that information and the time at which it was shared with the councils.</li> <li>- concern that information was provided to councils too late in the game; of particular example was the thermoelectric power plants use data</li> <li>- concern that EPD, either directly or through its contractors, has inserted management option recommendations into regional plans that were never supported by council members</li> <li>- concern that only "worst-case" energy water use was utilized in process; should include other scenarios that reflect water conserving energy options</li> <li>- concern that only high growth population projections were included; should include a range of growth contingencies, not just the high-growth scenario</li> <li>- concern that municipal water forecasts improperly assume that water consumption must increase as population increases. should incorporate aggressive water efficiency in order to secure water supply for new residents, as well as to augment stream flows</li> <li>- concerns with the selection of the planning nodes being arbitrary</li> <li>- concern with use of current minimum instream flow policy without analysis for other scenarios</li> <li>- concern that reservoir management was assumed to provide protection from problems with adequate flows when reservoir management is driven by too many other factors to assume this to be the case</li> <li>- concern with groundwater modeling assumptions and results</li> <li>- concern that interstate considerations were not fully incorporated into plans</li> </ul>	<p>Most concerns to be addressed by EPD for incorporation into future planning update.</p> <p>This comment echos the feedback in many comments, looking for EPD clarification on the plan's legal/permitting impacts.</p>
6	Lawrence E. McSwain (Larry) 35 Glengarry Chase Covington GA 30014 770-786-3221 HOME 678-410-9728 CELL	<p>Mr. McSwain provides comments that relate to the protection of instream flows (EPD-funded studies to develop protective instream flow policy/protect flows downstream of new reservoirs), inclusion of aggressive watershed practices (reduction of nonpoint source pollution, TMDL implementation), inclusion of conservation practices as first priority for closing gaps, ensuring reservoir site selection matches locations of need, and concern for the selection of nodes and data used for resource assessments.</p>	<p>Most of these comments have already been addressed in the MOC plan. MOC has no availability gaps to be closed. For water quality, the EPD will need to continue monitoring. EPD also stated that future permits will be issued so water quality standards will not be delayed.</p>

No	Comment Author	Comment Summary or Highlights	Proposed Response
7	Southern Alliance for Clean Energy (Sara Barczak, Program Director and Rita Kilpatrick, Georgia Policy Director)	<p>Most comments provided are of a general nature and not specifically related to MOC. Recommendations include revisions to the baseline energy scenario in EPD's Energy Forecasting TM and incorporation of a water-conserving scenario that incorporates energy efficiency. Specific comments related to MOC include questions about the discussion in Section 4 regarding the Public Service Commission's role in utility energy planning. In addition, the comments explain that the utility resource plans and forecasts are not made public. The specific comment is provided below for reference.</p> <p>Some of the draft regional water plans draw erroneous conclusions about state agency roles in utility energy planning that need correction.... It is not correct that the PSC regulates a planning process for other power companies beyond Georgia Power. This poses a serious informational gap in statewide energy forecasting for the state and the regional water councils.... no updates for the electric membership corporations (EMCs) and municipal electric companies in Georgia will be possible through PSC reviewed utility resource plans because no such oversight exists for those utilities.</p>	EPD has provided language in response to this comment (regarding Public Service Commission's role) for inclusion in all plans.
8	The Nature Conservancy – Georgia Chapter (Shelly Lakly, PhD., Executive Director)	<p>Recommendations offered by the Nature Conservancy were primarily directed to EPD and their use of the regional water plans and do not suggest any revisions to the current regional plans. These included validation of the resource assessments, stream ecology studies, revision of interim instream flow guidelines, funding of future studies based on plan recommendations. Comments that may require revisions to the plans include the following:</p> <ul style="list-style-type: none"> <li>- All regional water planning councils should include in their plans the implementation of at least Tier 3 water conservation management practices.</li> <li>- All regional water planning councils should include in their plans the maximization of returning clean water to streams and rivers before constructing water supply reservoirs.</li> <li>- All regional water planning councils should include in their plans a specific analysis of how they followed the statewide water management plan's comprehensive water supply reservoir policy.</li> </ul> <p>NOTE: one recommendation was for all plans to include a recommendation: "Evaluate minimum instream flow and unimpaired flow assumptions in the Surface Water Availability Resource Assessment. Consider pilot site-specific instream flow studies in the "X" basin (at locations predicted to have instream flow shortage). In combination with a low flow monitoring program and an agricultural use metering program, confirm the magnitude and frequency of predicted gaps. Update Surface Water Availability and Surface Water Quality Resource Assessment models based on the results of the studies for future Regional Water Plan update."</p>	<p>Most concerns are primarily regarding EPD policy and need to be addressed by EPD for future update of resource assessments and regional water plan.</p> <ul style="list-style-type: none"> <li>- Implementation of at least Tier 3 water conservation management practices: The MOC has no availability gap and the Council recommends Tier 1 and Tier 2 (upcoming rules). This comment directly conflicts with a comment received from Georgia Power Stressing that only Tier 1 practices be mandatory. No modifications to the plan are recommended.</li> <li>- This recommendation is implicit in Management Practices WQ3 and WQ4 for point sources and WQ7 - WQ 11 for non-point sources, with or without reservoirs.</li> <li>- No modification to Plan required for the EPD comprehensive water supply reservoir policy because Plan assumes that all applicable EPD policies will be followed.</li> </ul>
9	US Fish and Wildlife Service June 23, 2011	<ol style="list-style-type: none"> <li>1) The regional water plans do not meet a basic goal of the 2004 Comprehensive State-wide Water Management Planning Act - protecting natural systems</li> <li>2) The regional plans fails to ensure that management practices are incorporated in water planning that will protect species listed under the Endangered Species Act, or those addressed in the Georgia State Wildlife Action Plan or State Wildlife Protection Act. We recommend that the councils meet with scientists in DNR, UGA and USGS to develop management practices that will protect natural resources</li> <li>3) The regional water plans do not include conservation savings in calculations of future water demands (with the exception of two plumbing code changes)</li> <li>4) The regional water plan do not evaluate the effects of large-scale interbasin transfer on water resources in the donor basin. (Not applicable to MOC)</li> <li>5) The regional water plans focus on water supply and conservation, but do not emphasize minimizing impacts of upstream activities that increase sediment-loads in the river and reduce water storage capacity in existing and future reservoirs</li> <li>6) The language for many of the goals and management practices needs to be stronger and more proactive</li> <li>7) We recommend the basin plans include evaluation of the effects of upstream activities on downstream water users</li> <li>8) We recommend the basin plans prioritize those management practices that will achieve water conservation as soon as possible</li> <li>9) We recommend the basin plans include drought contingency planning and water demands be adjusted based on occasional drought conditions</li> <li>10) We recommend the basin plans incorporate the realities of new reservoir construction and base needs on local information rather than the coarse overview of water supply shortfalls utilized for the draft plans.</li> <li>11) We recommend the basin plans require implementation of educational programs to inform the public of the need for water conservation in their communities and how they can be a part of that conservation</li> <li>12) We recommend all the basin plans be modified to incorporate an awareness of the interrelationship of surface water, ground water and water quality</li> </ol>	<ol style="list-style-type: none"> <li>1) This is a conclusory statement with which we respectfully disagree. Our plan and its supplemental documents clearly adhere to existing State and federal laws and regulations with regard to resource protection.</li> <li>2) The Management Practices adopted for the MOC Plan in no way adversely affect protected species. USFWS, UGA and USGS scientists as well as DNR WRD staff have been invited and have attended council meetings; in fact, many of their comments have been incorporated into the plan.</li> <li>3) Savings in addition to plumbing code changes are difficult to estimate without additional credible data such as number of cooling towers or existing or future multi-use buildings for sub-metering.</li> <li>4) Not applicable to MOC</li> <li>5) The council recommended several non-point source control management practices that will reduce sediments. See Management Practices WQ7 - WQ 11.</li> <li>6) The Council has worked through a collaborative process in developing vision and goals, and we recommend no change at this point.</li> <li>7) EPD's Resource Assessments evaluate current and future projected (2050) conditions for surface water availability, ground water availability, and water quality.</li> <li>8) Done.</li> <li>9) Drought contingency plans are currently required by EPD for all permitted municipal and industrial surface water withdrawals. The projected future water demands are developed for normal hydrological conditions, with the understanding that EPD may direct water users to reduce their use in drought situations.</li> <li>10) The regional water plans are high-level documents and do not go to the detailed level of permitting requirements for any type of facility.</li> <li>11) See management practices WD1, WD2, and ED1.</li> <li>12) This comment is too nonspecific to address.</li> </ol>
10	Upper Chattahoochee Riverkeeper (on behalf of several Riverkeeper organizations)	The Upper Chattahoochee Riverkeeper provided comments that were not specific to any one plan but applied to all of them because the comments related only to the resource assessments. Major areas of comment include lack of integration among and deficiencies of the resource assessments, population projections, economic growth projections and the responsibilities of the Governor's Office of Planning and Budget.	Comments apply to resource assessments and population projections. EPD is recommended to incorporate comments into future update of plans. No revisions to plan recommended.

No	Comment Author	Comment Summary or Highlights	Proposed Response
11	Jack Gleason (Concerned Citizen)	<p>1. In the interest of procuring a real implementation of "Change" with regard to substantially IMPROVING the States otherwise negatively impacted Streams and Rivers -- this for insufficient Stormwater Management Practices implemented of Development Interests activities occurring within it over the last decade specifically -- the ACF must be designated a "Regionally Important Resource" (RIR) immediately! Otherwise dissolve the DCA as an important-fassad of State Regulatory Bureaucracy.</p> <p>2. In the interest of procuring a higher level of both Quality and Sustainability, All of the entire REGIONS "Stormwater Management Plans" need to incorporate more comprehensive protective measures taken with regard to Future Development occurring within both "Small" Water supply Watersheds and "Minor" Aquifer Recharge Zones/Groundwater Recharge Areas (ARZ/GRA) -- especially when occurring upon BOTH -- by determining prudent and enforceable (Maximum Percentage Allowable) Impervious Surface Coverage (ISC), and Maximum Allowable Percentage-Change of Water Temperature of Discharge (WTD), while very well too, increasing by at least 25% the specifications regarding "Sedimentation" and Time/Volume release of Stormwater from ALL SOURCES within those particularly Environmentally Sensitive (Water supply Watersheds and ARZ/GRA) Impact-Components.</p> <p>3. Impose strict Implementation and Enforcement (I&amp;E) of both existing (a.) Un-disturbed Riparian Corridor Vegetative and (b.) Impervious Surface Coverage Buffers, and (c.) include protections being extended toward true "Lay-of-the-land" Ephemeral Streams specifically existing within "Small" Water supply Watersheds, ARZ/GRA, and other geological features contributive to the "Top of the Watershed".</p> <p>In consideration of both today's and Our Future "Landscape" with regard to procuring a Sustainable Water supply for the Region I strongly believe that implementation of these considerations only make Common Sense and can be implemented by the simple universal change of "Should" to "Shall" as it exists within current ordinance nomenclature.</p>	Comments apply more to current EPD regulations and local ordinance language. No revisions to plan recommended.
12	Bryan Tolar (Public Affairs Coordinator for Daniel Groce)	<p>The Middle Ocmulgee region is made up of many industry sectors and water uses, and the future forecasts of population growth indicate the strength of the region. Agriculture plays a vital role in the economies of counties located in the southern part of the region, specifically in Houston, Pulaski and Peach Counties. It is important to plan for the expected population increase that will occur over the next 40 years. For this reason, water conservation and storage are of the utmost importance. We commend the work of the Georgia Soil and Water Conservation Commission for educating and assisting Georgia's agriculture industry on innovative ways to conserve water and improve efficiency. We encourage the state to invest needed funds in these efforts as well as planning for reservoir development. Preparing for the future should be considered the most important aspect of the water planning process. The Council's recommendations to analyze the possibilities of new reservoirs, best management practices for agricultural permit holders, and the development of farm ponds are all solid aspects of water planning that should be carefully considered and implemented as practicable. We had an opportunity to work with lawmakers in crafting legislation dealing with agricultural withdrawal permits, and we support the Council's recommendation of implementing this new process. Reclassifying dormant permits will help the Region assess the impact agricultural irrigation has on the water management of the area. Furthermore, the continued evaluation of irrigation water as being 100% consumptive contributes to conclusions that are misinformed. As long as these variables remain off target, the results will draw incorrect conclusions. We appreciate the willingness of the Environmental Protection Division to take input regarding this important issue and for providing technical assistance throughout the process. Respectfully, Bryan Tolar Daniel Groce President Public Affairs Coordinator</p>	EPD is evaluating the 100% consumptive assumptions for irrigation water and will incorporate results into the update of resource assessments and regional water plans. No modifications needed to the Plan.
13	Dr. Johnny Bemby (Council Member)	<p>As the Planning Contractor for the Middle Ocmulgee Council, we received the following comment from Dr. Johnny Bemby, a member of the Middle Ocmulgee Council, and are posting it on his behalf. A number of rural neighbors here in Pulaski County who rely on private wells for their water supply have run out of water during the past week (as of June 6, 2011). This prompted me to try recollecting when and how we addressed such situations on our regional water plan. In reviewing the document which is now available for public comment, I couldn't find rural residential water deficiencies addressed in any manner. This is not a new problem in our area. It has occurred during extreme drought periods in the past and is often resolved by the homeowner having a well drilling contractor lower the submersible pump or in some cases having a new well drilled. It is obvious that the problem occurs most often during drought periods (which obviously are concurrent with periods of heavy irrigation water usage). I asked some related questions of the geologist/hydrologist who gave us the "updated information" on aquifer water supply. My question was more specifically related to the obvious "drying up" of flowing springs in our region since irrigation has become so prevalent, but obviously the rural well situation would be related. As best I can recall, his response was that there is no gap (between supply and demand). With full appreciation that he was addressing supply from each respective aquifer and that these residential wells very likely don't draw from an aquifer which he studied, it still seems that we should consider those sources before we declare there is no "gap". It seems to me that the public would be surprised to find that this issue was not addressed in our regional water plan, especially those members of the public who are without water at their sink.</p> <p>Furthermore, it seems that the last section in the plan which addresses issues which should prompt review or reassessment of the plan should include extreme weather events, such as severe drought or flooding.</p> <p>Johnny Bemby</p>	<p>Wells going dry during droughts can be caused by many factors, including improper well casing and falling water levels. Need discussion at Council Meeting 11 of how to address.</p> <p>- Council discussion needed regarding addition of "extreme weather events" to triggers to prompt review or reassessment of the plan (Section 8.3)</p>
14	Frank Stevens (Gwinnett County Public Utilities)	Priority management practice WS2 states the importance of reclaimed water discharges to the sustainable yield of the basin. Gwinnett County is currently completing a \$277 million upgrade of its 22-mgd Yellow River Water Reclamation Facility.	No modifications needed to the Plan.
15	Jerry Murkerson (Concerned Citizen)	Please insert the 2010 census data on tables 2-1 and 4-1.	2010 Census data has been updated in the plans

No	Comment Author	Comment Summary or Highlights	Proposed Response
16	Les Ager (Concerned Citizen) June 23, 2011	Mr. Ager submitted 9 pages of detailed comments primarily related to his concerns with MOC procedures and fish and wildlife issues.	See attached specific responses.
17	Georgia Wildlife Federation (Jerry L. McCollum) June 23, 2011	<p>The length of the comment letter is not conducive to inclusion in this table. The general concerns and recommendations contained in the letter are outlined below. Please reference letter for specifics.</p> <p>In-Stream Flow Policy: The comment indicated the organizations opinion that the plans will be flawed until the current instream policy is compared to new research that more clearly defines the constrains needed to set a sustainable instream flow. " We do not believe that the plan contains a instream flow policy that is protection of the natural resource base with in the planning regional. The regional plan, therefore must call for the conduct of the necessary research to answer the question before its implementation."</p> <p>Fish and Wildlife Resources: "The plan mistaken characterizes the fish and wildlife resources of the region. Data collected by the Wildlife Resources Division of DNR indicate that approximately 50% of the streams samples in the region ranked poor or very poor as measured by an Index of Biotic Integrity. This measure takes into account both abundance and diversity . the Plan does not adequately deal with their diminished condition and it needs to do so. The plan should have a resources recovery water level identified before it programs and plans the use of the remaining water in the system. The council did not place emphasis on the goal relating to protection and improvement of aquatic natural resources despite the characterization of the region as being a high priority conservation area. High priority in this instance means that is need more conservation planning."</p> <p>"In our opinion the information provided in the plan regarding sport fish and fishing potential is woefully short on fact and inadequate to describe the resources available and the nature and value of those resources. A much more in-depth section should be included in the plan, both to characterize the resources available and to demonstrate the protective policy within the plan to protect the quality of this fishery, which may be worth as much economically for the recreation as for the water for sale. Adequate treatment of the commercial fishery available and its value is also needed"</p> <p>"In conclusion we would like to illustrate he following general recommendations and ask that the Council work to incorporate these recommendations in the State Water Plan.  1)Metro Atlanta needs to look at raising Buford Dam two feet in in height...  2) Georgia must not implement water management plans that impact downstream communities developed of future economic growth using Interbasin Transfers.  3) Future Regional Councils need upfront information from large water users like Southern Company on specific locations, size, and planned water consumption from future power plants being considered. This information must be a priority for EPD to obtain and provide to all councils.  4) Georgia should focus on aggressive water conservation measures with will provide water at a reasonable costs which should spread over the entire state planning process.</p>	<p>Instream Flow Policy: MOC plan contains extensive recommendations on instream flow policy and research (pilot stream specific studies)</p> <p>Fish and Wildlife Resources: information in the Plan was provided by DNR Wildlife Resources Division. Index of Biotic Integrity is one of the many parameters measured for stream health. The stream specific studies mentioned above will help identify critical flow needed for aquatic resources</p> <p>Conclusory comments do not apply to MOC Plan; are directed either at EPD policies or energy companies. No revisions to Plan recommended.</p>
18	Metro Water District Comments June 22, 2011	<p>1) Page 6-4 and 7-10: The Council recommends the GA EPD conduct further studies to evaluate the impacts of potentially high nitrogen levels.....Comment: This study should be conducted and funded by the State.</p> <p>2)Nutrient monitoring should be conducted by the State</p> <p>3) An explanation of the need for this investigation [impacts to sustainable yield of Lake Jackson and Ocmulgee River] was never discussed in the Plan prior to this brief recommendation. It appears that the Council may not want DeKalb to return water to the Chattahoochee Basin as proposed in the District Plan. GA EPD needs to resolve this policy issue and inform both the Council and the Metro Water District becasue the cost of returning water to the Chattahoochee will be tremendous and if there is good reason to not require that then we need to know soon.</p> <p>4) Emerging Contaminant is not just a District issue; this is a national and state issue for all wastewater discharges. This issue needs a statewide study.</p>	<p>1) Support and included in Section 7.4 already (Additional Data - water quality)</p> <p>2) Support - same as 1)</p> <p>3) The MOC Council is simply asking the State to conduct updated resource assessments if "changes in discharge conditions in the Upper Ocmulgee basin are proposed, not advocating one or the other</p> <p>4) Suggest to modify language to "encourage state-funded statewide research on emerging contaminants</p>
19	Newton County Board of Commissioners Kathy Morgan June 23, 3011	Table 5-1: requests that itemized information be provided to the County for confirmation so as to not adversely impact future water planning	The PC will prepare an itemized spreadsheet of the permitted withdrawals by County

## Response to Les Ager Comments on the Middle Ocmulgee Regional Water Plan Received 6/22/11

### Page 1-3

The report indicates that the Technical Subcommittee consisted of 11 members when in fact only 7 council members served on the committee. The other 4 members of the subcommittee were not members of the water council and were representatives of specific water users within the region. Their participation in the preparation of the plan was clearly outside the bylaws adopted by the Middle Ocmulgee Council which indicated that only council members could be appointed to subcommittees. I believe this introduced a serious bias to the plan that was counterproductive. In particular the subcommittee was largely responsible for the development of management practices, a process that would have certainly benefited from a more objective and unbiased approach.

*Response: The makeup of the council was established by the Governor through his appointment of council members from various stakeholders of the regional water planning process. While all sectors were represented on the council, not all members were "technical" experts in their sector. With a condensed schedule and a mountain of information requiring review, the Chair invited members outside its membership to obtain the technical knowledge necessary to review resource assessments, management practices, and other aspects of the plan that required this type of expertise. All subcommittee recommendations were brought to the full Council for decision. Subcommittee members who are not council members did not vote on any Council decisions. This process is not in conflict with the Memorandum of Agreement that established Council procedures, and was in fact cleared with EPD prior to making the appointments of the non-council members to the Technical Subcommittee.*

I commend the council for their inclusion of the protection of natural resources in their goals 2 and 7. However I find goal 1 ambiguous and vague. A definition of the term "water supply sources" is not provided and I would take it to mean surface and groundwater. As such, they are resources fixed in time that can be neither increased nor decreased. I suggest that this goal be reconsidered and stated more plainly. I am concerned that the word "maximize" in this context is synonymous with "utilize" and that, if that is the case, this goal is inconsistent with the many of the other goals listed.

Goal 5 seems to contradict itself. On one hand it indicates that discharges of wastewater are to be promoted while on the other it promotes beneficial reuse. I suspect that the council meant to say that they promote the proper treatment of wastewater before discharge. At any rate, this goal should be reworded to indicate the intended meaning.

*Response: The goals were developed in an iterative process that involved extensive discussions and refinement by the Council. The goals are intended to be of a broad, general nature on which the specific management practices recommendations in the Plan are based. The adopted goals represent the final consensus of the Council. Goal 5 does not contradict itself. A wastewater treatment plant can discharge a portion of its treated effluent and reuse a portion of its treated effluent (for example, golf course or green space irrigation) when it is cost effective. And proper treatment of wastewater is assumed.*

### Page 2-3

The report indicates that the regulation of the Ocmulgee River by Lloyd Shoals Dam influences the flow regime well past Macon without giving references for this assertion. Based on the relicensing application filed by Georgia Power Company to the FERC during the most recent relicensing of the facility, the significant flow alteration extended to Macon but not below. This is an important point when you consider that significant physiographic changes occur to the river in the Macon area as well and that the river essentially functions as an unregulated river from this point downstream.

"Juliette" is used on this page as a reference to both Lake Juliette, an impoundment of Rum Creek, and Juliette Dam which is located on the Ocmulgee River. This should be clarified and care should be taken to avoid this confusion throughout the report.

*Response: EPD recognized that the lower Ocmulgee River is "semi-regulated", while the portion above Macon is "regulated". The language related to Lake Juliette and Juliette Dam has been revised to read more clearly in the plan.*

The report indicates that Juliette Dam isolates 17 miles of the Ocmulgee River. It is not clear what is meant by this statement. Perhaps what is meant is that Juliette Dam prevents the upstream migration of anadromous fish species and degrades the biologic integrity of the river. In any case this should be reworded so that the meaning is clear.

*Response: The language related to the "isolation" of the Ocmulgee River has been revised to more accurately reflect the characteristics of the Juliette Dam.*

### **Page 3-1**

The report indicates that 58% of the 59 MGD withdrawn from the Ocmulgee River is evaporated during the cooling process and is considered consumptive. However, the disposition of the other 42% is not mentioned. I do not believe it is returned to the Ocmulgee River and is not available for instream or downstream uses and therefore this withdrawal should be considered 100% consumptive.

*Response: The information regarding consumptive use of the energy facilities was obtained from the Statewide Energy Sector Water Demand Forecast dated 10/29/09 prepared by CDM. Georgia Power discharges most of the "non-consumptive" use into the Ocmulgee River upstream of the intake point. The discharge is regulated by NPDES permit #GA0035564.*

### **Page 3-3**

The report indicates that EPD developed three Resource Assessments for use by the councils in developing their water plans. However, the Resource Assessments were not made available in final form to the councils until very late in the process after the plans were largely developed. The unavailability of such critical information seriously flawed the planning process and as a result the plan is lacking in many respects.

The description of the surface water assessment only provides discussion of the surface waters as they relate to chemical standards. The region's water resources contain a significant proportion of surface waters that fail to meet their classified use for reasons other than chemical. This should have been discussed in this section.

*Response: The Council has also expressed concern regarding the timing of the resource assessment availability as well as the data used to develop the modeling. Details of the concerns are included in Section 5.4.2 and recommendations to the state regarding the resource assessments are included in Table 7-3. Section 3 also discusses impaired waters and a complete set of maps showing impaired waters (including biological parameters) is included in the supplemental documents.*

### **Page 3-4**

In describing the Surface Water Availability Assessment the plan indicates that minimum instream flows are based on EPD policy. The assessment failed to consider that the DNR board, when they established the existing policy in 2001, recognized that it was flawed and did not provide the protection to instream natural resources that was needed. Thus they recommended then that additional research be funded to refine and improve the policy. While this additional funding and research has not occurred, that does

not make the current policy any less flawed than when it was passed by the Board in 2001. I believe that the council should have been presented with alternatives to the current instream flow policy within the surface water assessment. Not presenting this information to the council implied that current policy is adequately protective of instream natural resources, an assertion that has been rejected by the DNR Board in 2001 and by the scientific community in general in the time interval since.

It would seem appropriate in this section to mention that the vast majority of water withdrawal permits within the region currently do not comply with the current instream flow policy. Furthermore there is no existing plan to bring existing permits into compliance with current policy in the future. The use of withdrawals that are not compliant with existing instream flow policy without noting such in the Surface Water Assessments invalidates the assumptions of the model (if you assume that the compliance with the current policy is necessary to protect aquatic life). When you consider that the majority of permit holders have no minimum downstream flow requirements at all, this situation seems to clearly indicate that management action is needed if water council goals are to be met. How these water withdrawals were treated in the models is unclear. For example, on the Ocmulgee River both the Plant Scherer withdrawal permit and the Macon Water Authority Permit have annual 7Q10 protective flow measures for the Ocmulgee River. If these values were used in modeling it would present an overly optimistic prediction of water availability in the river for much of the region. It would obviously mask the low flows that would degrade aquatic habitat in the river as well. Statewide, approximately 57% of permits have no minimum flow requirement, 33% require protection of annual 7Q10 flow only, and 10% comply with the current policy. These numbers, nor numbers specific to their region, were not presented to the council for their consideration despite their critical relevance to council goals.

*Response: The Plan was developed using existing EPD policies for minimum instream flow requirements and water withdrawals. Ted Will of the Wildlife Resources Division discussed the three instream flow options under the current policy and presented the concept of environmental flow policy to the Council (presentation titled "Protecting "Environmental Flows" in Georgia's State Water Plan" during Council Meeting 6 (June 30, 2010). EPD also hosted a joint meeting in December 2011 focused on instream flow protection issues. The Council is also concerned with the issues regarding instream flow policy and included this concern in the recommendations to the State detailed in Section 7.4. The Council recommends to "Continue to study and evaluate current instream flow policy. Consider alternative minimum instream flow policy such as stream-specific instream flow values instead of the current monthly 7Q10 requirement (especially for ecologically sensitive streams). Encourage state or federal funding for minimum instream flow research that includes a pilot stream-specific study in each of the river basins or planning regions, beginning with streams designated as DNR high priority streams, other ecologically sensitive streams, or streams predicted to fall short of instream flow target in other water planning regions. These studies should be used to establish an updated DNR instream flow policy for all similar streams in that basin or region. These studies should be completed before the next regional water planning cycle. Continue the current adaptive management and instream flow strategy for permitting additional water supply reservoirs in the state (all regions)."*

### **Page 3-6**

The use of only two planning nodes within the Ocmulgee River Study Basin introduced a clear and important bias. The area between the two planning nodes was approximately dissected by the region's greatest water demand (Macon) and the border between two physiographic regions (the Coastal Plain and Piedmont). Because of this marked disparity within such a long river reach, it masked the scarcity of water available in the Piedmont portion of the region. This discrepancy was noted early in the planning process by various council members and others yet persisted throughout. The result is that the availability of surface water in the region is not clearly characterized in necessary detail.

It would be appropriate to mention in this section that both planning nodes used in assessing surface water availability in this region were considered regulated nodes, despite the distance between the point of regulation (Lloyd Shoals Dam) and Lumber City.

*Response: The Council is also concerned with the planning nodes included in the Resource Assessment modeling and included a recommendation in Section 7.4 (Recommendations to the State) to address this issue.*

### **Page 3-8**

The plan indicates that fish and wildlife are abundant and diverse in the region. The presence of endangered wildlife within the region is not an indication of good fish and wildlife abundance and diversity, rather it indicates the opposite. While it is true that the region provides important habitat for anadromous species, all these species are seriously threatened in large measure by the loss of available habitat within the region. The plan correctly indicates that DNR characterized "nearly the entire Ocmulgee Watershed was identified as a high priority watershed". This clearly contradicts the characterization of the area by the plan as supporting abundant and diverse wildlife and fish. Data collected by the Wildlife Resources Division of DNR indicate that approximately 50% of the streams sampled in the region ranked as either Very Poor or Poor as measured by an Index of Biotic Integrity. This measure takes into account both abundance and diversity. In addition, only approximately 47% of the regions streams meet their designated aquatic use. These facts should be included in the plan rather than using subjective mischaracterization. Considering these facts, I believe the plan has mischaracterized the aquatic resources within the region. I would suggest that characterizing wildlife and fish abundance and diversity as diminished and threatened would be more accurate.

It is disappointing that the council did not place more emphasis on the goals relating to protection and improvement of aquatic natural resources despite the characterization of the region as being a high priority conservation area. I am concerned that the bias introduced by council appointments and particularly subcommittee appointments may have resulted in a lack of adequate consideration of ecosystem concerns as relates to water supply and instream flow needs for wildlife protection.

Most river basins in Georgia currently harbors diadromous fish species including striped bass, American shad, Atlantic sturgeon (currently proposed by the National Marine Fisheries Service (NMFS) as federally endangered), and American eel. Diadromous fish populations have been reduced or imperiled as a result of dams, overfishing, and water quality degradation. A restoration and management plan for American shad in the Altamaha River Basin has recently been developed by the Georgia Department of Natural Resources (GADNR), the Service, and NMFS to facilitate restoration of the species throughout the Basin. In addition, many other native fish aquatic species, many of them listed in some manner by the State of Georgia and/or the U.S. Fish and Wildlife Service, are highly migratory species that regularly migrate in our rivers at a variety of life stages. It is essential to protect these aquatic species and keep their native ranges in the river systems accessible. Because of this need to protect migratory aquatic species, I am concerned about the potential effects of projects and management actions proposed by these regional plans on not only diadromous fishes, but also many sensitive migratory aquatic species.

My main concerns are the impacts of potential entrainment and impingement of all life stages of the native fish communities, including eggs and larvae. The limited information provided in the plans give no indications that this issue is an important consideration in the design and operation of water projects and the lack of consideration given this issue in the planning of facilities in use today suggests that this issue needs emphasis in the current planning documents.

I am also concerned about the impacts of future water withdrawals on instream flows, particularly during natural low flow conditions.

*Response: The maps of impaired stream segments for Biota (for fish communities and for macroinvertebrate communities) are based on information published by EPD in 2008 and were provided to the Council. Many of the proposed management practices (WQ7-WQ11) are designed to reduce non-point source pollution, protect and restore watersheds, and preserve sensitive lands that will directly or indirectly improve conditions for aquatic life in the streams. The discussion of wildlife resources of the Middle Ocmulgee region included in the plan includes language and information provided by the Wildlife Resources Division of the Georgia DNR.*

### **Page 3-11**

The plan indicates that there are over 120,000 acres of protected land managed by federal and state governments. While this land is managed by government agencies, a significant portion of it is leased to the state by other landowners and is therefore afforded no long term protection. This statement should be revised to provide a more accurate characterization of the amount of protected land management by government agencies.

Ocmulgee Public Fishing Area in Pulaski County is omitted from the list of sport fisheries in the region.

*Response: The Ocmulgee Public Fishing Area was added to the list of sport fisheries.*

The sentence "The Ocmulgee River offers excellent sport fishing at a number of lakes in the region" is both confusing and contradictory. If the contention is that the river provides excellent sport fishing, I believe citation of an appropriate reference is necessary.

*Response: Text was revised to clarify.*

The reference to Lake Juliette in describing the reintroduction of robust redhorse is incorrect. Lake Juliette is an impoundment of Rum Creek.

*Response: Revised text clarifies distinction between Lake Juliette (Rum Creek Impoundment) and Juliette Dam (Ocmulgee River).*

While it is appropriate to characterize the stocking area as limited in an upstream direction, there is no downstream limitation on fish distribution and characterizing the reintroduction to only a portion of the river downstream of Lake Jackson is incorrect.

*Response: No revision to plan.*

The characterization of anadromous species as having "experienced declines in the past" while accurate is misleading. Declines can only occur in the past.

*Response: No revision to plan.*

It is noteworthy that declines of all three species have occurred in the recent past and are all indications are that those declines are continuing. It would be appropriate to include a broader discussion of the details of these declines and their reasons considering that the attainment of the council's stated goals could reasonably be measured by the trends experienced by these species in the future.

Given the importance of sport fishing in the region and in particular in the Ocmulgee River, it would have been desirable to provide more discussion of the sport fisheries of the region than the single sentence on this page. For example, how many fishermen fish in the region? How many fish do they catch? Is fish consumption an important facet of sport fishing in the region? How is the sport fishery distributed between different resources in the region? Are some water bodies more important for sport fishing than others? How much economic impact does sport fishing have in the region?

Characterization of commercial fishing and commercial fish farming would have been appropriate.

*Response: No revision to plan. The plan structure does not allow for the extent of detail recommended to be presented. The plan references a website from which the reader can obtain more information about protected species if desired (Section 3.3.3).*

#### **Page 4-8**

The plan indicates that Plant Scherer withdraws 59 MGD and returns 25 MGD.

However, I believe the majority of water returned does not return to the same body of water where the intake is located. Most of the water returned either enters Lake Juliette or the ash detention impoundments. In both cases, the storage capacity of the impoundments is great enough that little of the returns ever reach the Ocmulgee River. Therefore the effect is that virtually 100% of the withdrawal is consumed. The results to the plan is that it underestimates water demand.

*Response: The information regarding consumptive use of the energy facilities was obtained from the Statewide Energy Sector Water Demand Forecast dated 10/29/09 prepared by CDM. Georgia Power discharges most of the "non-consumptive" use into the Ocmulgee River upstream of the intake point. The discharge is regulated by NPDES permit #GA0035564.*

#### **Page 5-3**

The plan indicates that there are no projected gaps in meeting projected future surface water needs and required flow regimes for either nodes in the region. However in Table 5-1, one-third of the counties listed are not projected to meet their water demands in the year 2050. This inconsistency should be explained.

If the energy water demands in Monroe County are expressed realistically, this increase the water demands in that county quite significantly and they will not meet projected demand forecasts in 2050 either.

The plan indicates that any future use of Lake Jackson's storage capacity for water supply would have to be approved by Georgia Power and EPD. However, the Federal Energy Regulatory Commission would also be required to approve any such change to the use of the project. This should be reflected in the plan.

The lack of gaps in water supply in the region is largely reflective of the masking of the effects of water demand centers and the variability of surface water availability across the region by the nodes used in the model. A node located near Macon along the fall line would have far more accurately characterized the availability of surface water resources and would have likely resulted in a very significant gap in the counties in the northern portion of the region, and perhaps in Bibb County as well. Generally water is in greater demand in the piedmont portion of the region but is shorter in supply but this effect is masked by the surface water assessment modeling methodology.

The plan seems to emphasize the important of the Bear Creek reservoir project for meeting the future water supply needs of Newton County. However, the projected water supply gap for Newton County does not occur until 2040. Given the uncertainty of projected water demands associated with population projections, energy needs, and industrial growth it seems somewhat premature to proceed with such a costly and environmentally sensitive project based on such uncertain projections.

*Response: Table 5-1 was included to show that, although there are no gaps at the planning node, there are potential gaps in water supply at the county level based on current permitted withdrawals.*

*Explanation is included in the plan, and was revised slightly to emphasize the reasoning behind the table contents. Additional information on the comparison is included in the supplemental document.*

### **Page 5-13**

The future conditions assessment evaluated assimilative capacity based solely on modeling of DO conditions and nutrient loading. However the water quality problems in the region are not typically related to these chemical parameters but to other degradations to water quality. Recognition that the TMDL planning process is an essential one to improved water quality is important and an important assertion of the plan. However, as the plan indicates, this process of watershed protection and improvement plans has been in use by EPD for more than 10 years yet the plan does not acknowledge the progress, or lack thereof, to date. Ineffectual management of the TMDL program has resulted in little improvement to degraded streams within the region. It is important that the plan accentuate these facts to illustrate the need for improved management of water quality at all levels. The last sentence of Section 5.3.3 emphasizes the need for coordinated monitoring, development of TMDL and watershed improvement plans, and strong local actions to improve the health of streams. I believe that we have documented and monitored enough problems in our streams that further planning and monitoring should take a lower priority and that strong local actions should be given more prominence in this section.

While the listing of 5 major water quality issues for the region is accurate it might be appropriate to list them in the order in which they are common across the region. For example, the need to do additional watershed protection and management is common to all counties and should perhaps be listed first.

The statement that "strong local actions are needed" is apparently related to the high proportion of streams with documented water quality problems in the region and implies that action is necessary and appropriate beyond planning and monitoring. I would suggest that a more proactive approach to addressing these issues should be suggested here.

*Response: The Council recognizes the need to water quality management, and included management practices that address this issue, specifically WQ7 – WQ11 related to non-point source pollution. The ranking of these management practices were based on ranking of importance conducted in Council Meeting 7 (September 22, 2010).*

### **Page 5-15**

The fact that the Surface Water Resource Assessments analyzed conditions based on the current minimum instream flow policy and did not consider nor provide analysis on any other alternatives is a serious deficiency in the plan.

The majority of the scientific community regard the current EPD policy as antiquated and inadequately protective of aquatic communities. However, the exclusion of the analysis of any other alternatives implied to the council that the current policy is adequate for this purpose. Protective instream flows are essential to achievement of council goals and this subject was clearly not considered fully in the planning process.

### **Page 6-1**

The report indicates that it utilized extensive coordination with stakeholders in selecting management practices. Perhaps the list of stakeholders utilized is much broader than those mentioned in the text but if not, it appears that their contact was with only a select few stakeholders that would largely be responsible for implementing management practices. Not mentioned as being contacted, but certainly stakeholders, were recreational interests, environmental groups, fishermen, and others whose interests

in water resources are not solely consumptive or economic in nature. I believe this may have introduced a bias in the identification of water management practices that may favor economic and consumptive interests at the expense of the integrity of natural resources.

The report correctly points out that the needs and interests of stakeholders in the region are diverse. However, their concept that the management practices should be presented as a menu for selection based on local needs is flawed.

Because water flows downstream, local water quality and quantity are often not dictated by local conditions but rather by condition upstream and often quite removed from the local area. A prioritization of management practices aligned with priority problems and goals would have been perhaps more appropriate, albeit let palatable to local interests. An example of this concept is presented on page 6-4 of the plan. In discussing the existing nitrogen loading problem on Lake Jackson, the council concedes that the causes of the problem lie upstream and not locally and are therefore not addressable in this plan.

*Response: All meetings have been open to the public and public notice posted in advance of Council meetings. Public comments were welcomed in every Council meeting. Extensive stakeholder coordination took place throughout the development of the plan. The details of this process and additional information on stakeholder contributions can be found in the Public Outreach Technical Memorandum.*

#### **Page 6-2**

The plan groups management practices into 4 groups. However, the distinction between "enhanced water quality standards and monitoring" and "enhanced pollution management" is not clear and I would suggest combining the two groups for clarity.

*Response: The water quality management practices were divided into two categories to specify those related to point sources and non-point sources. The terms were used to be consistent with management practices in the State-wide Management Plan.*

#### **Page 6-5**

The abbreviations used in table 6-1 should be defined (for example WD1, WS1, etc.).

*Response: Abbreviation for each major category of management practice is now included in the title of the tables and also in the footnote of the table.*

#### **Page 6-10**

The first two priority management practices for the improvement of water quality(WQ1 and WQ2) are planning and monitoring activities that do nothing to address the improvement of water quality. While planning and monitoring are both important activities, it does not seem appropriate given the pressing nature of water quality problems identified in the region, that they would be priority needs. I suggest that planning and monitoring either be moved to a lower priority or combined with other management practices. Section 5.3.3 indicated that "strong local actions are needed to improve the health of the streams in the Middle Ocmulgee Region," This statement implies that action is needed to correct problems. In this table, only WQ3, WQ4, WQ7, and WQ11 actually do anything to improve water quality. We already know of many significant problems with impaired streams so the priority should be in attacking those known problems.

*Response: The management practices recommended in the plan represent a consensus of the Council resulting from a thorough process of management practice consideration and prioritization. The Council*

*recognizes the important of planning and monitoring in order to measure progress. WQ7 to WQ11 are practices that would result in improvement of water quality, if implemented.*

**Page 7-13**

I commend the council for recommending that the state study and evaluate the current instream flow policy. In fact this was a DNR Board recommendation a decade ago. This should be a common thread across all water plans.

However, I recommend that language be added that addresses the issue of withdrawal permits that are "grandfathered" and are out of compliance with even the current policy.

Wording should be added that the state should re-evaluate the necessity of "grandfathered" withdrawal permits with inadequate protective instream flow limitations.

*Response: The recommendations to the state presented represent a consensus of the Council.*

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