



B&V Project 164139  
B&V File C-1.4  
November, 15, 2010

To: Middle Chattahoochee Water Planning Council

From: Jim Hawkins, Black & Veatch and Robert Osborne, Black & Veatch

cc: Tim Cash, Assistant Branch Chief, GA EPD

Subject: Meeting Summary: Council Meeting 8 on November 10, 2010

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The council meeting was held on November 10, 2010, at the Columbus Convention and Trade Center. The list of attendees is attached. In addition to these minutes, all the presentations (slides) discussed in this meeting will be posted on the Middle Chattahoochee web portal (<http://www.middlechattahoochee.org/>).

### **Welcome and Introductions**

Council Chair Matt Windom stated that a quorum was not present, but said that it may occur later during the meeting. Matt welcomed members and thanked everyone for attending. Council member Alan Bell provided the invocation. Next, Matt allowed members of the public to introduce themselves. The public sign-in sheet is included as an attachment.

Chair Windom discussed the Joint Meeting of the Regional Water Councils that was held at Macon State College on October 6, 2010. Matt said this meeting consisted of panel discussion and was well attended. He said the meeting was more productive than he thought it was going to be and it went well.

Next, Matt reviewed the following milestone schedule and emphasized that the Council had around 75 days to finalize the plan to EPD:

#### **Completion Date**

November 10, 2010  
November, 2010

December, 2010  
January, 2011  
January 31, 2011  
March, 2011  
March, 2011

#### **Milestone**

Council Meeting 8  
MCH Receives Water Quality  
Modeling Results  
Plan Review Committee Meeting  
Council Meeting 9  
Recommended Plan to GA EPD  
Plan Review Committee Meeting  
Council Meeting 10

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March-May, 2011  
 June, 2011

Public Notice of Draft Plan  
 Final Production of Adopted  
 WDCP

June 30, 2011

GA EPD Approves MCH Regional  
 WDCP

Chair Windom said the council officially made a request to extend the planning schedule by a year to Senator Ross Tolleson, Representative Lynn Smith, and Allen Barnes, Director of the Georgia Environmental Protection Division. However, Chair Windom said that the Council will continue with the original schedule and if the extension is granted then the milestone schedule will be reevaluated. Chair Windom said there was a recent newspaper article that indicated that GA EPD and Tim Cash, Assistant Branch Chief, GA EPD, were against this time extension. Chair Windom clarified for the record that Tim Cash and/or EPD did not take a stand for or against this time extension.

Chair Windom also said that they requested from the Office of Water Resources in Alabama water demand projections through 2050 for the Alabama portion of the Middle Chattahoochee region. They have not gotten a response yet.

Since the Council met, there was one comment from Georgia Forestry Commission. Chair Windom noted that this was included on last page in the pre-meeting packet.

### **Draft WDCP Review**

Chair Windom recommended to the Council members that they take their time, read the plan, and get comfortable with the language in the plan. **He asked the Council to read through the document and get comments back to Jim Hawkins or Steve Simpson by December 10, 2010.** He said this will allow the team to incorporate these comments.

Council member Jeff Lukken also suggested that when a council member reviews the documents early that they should go ahead get the comments to Jim or Steve. Jeff thanked everyone for their hard work in producing the plan.

Jim Hawkins noted that they have kept track of the Council comments in the document using track changes since August. He said this can be made available to Council Members as needed. Jim said that they would take the comments in whatever form Council Members had made the edits.

Next, Jim said he wanted to focus the discussion on 10 to 15 items noted during EPD and Black & Veatch review of the DRAFT Plan. Jim said these items were some of the bigger issues currently not resolved. Council member Robert Watkins asked if they could also discuss other items/sections. Jim said yes.

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### **Chapter 1**

Jim said while there was still some text to be added to this chapter, there was not anything to discuss right now.

### **Chapter 2.**

*Table 2.1 Dams in the Apalachicola-Chattahoochee-Flint Basin, page 2-4*

Jim noted that they had revised this table to better differentiate authorized purposes.

*Section 2.3.1 Corps of Engineers Reservoir Operations, pages 2-7 and 2-8*

Jim noted this section was shortened by moving most of the Judge Magnuson information to an appendix document.

*Page 2-8. 1989 Water Control Manual is inadequate.*

Jim read the following paragraph to the Council and asked for their comments:

*It should also be noted that the Middle Chattahoochee Water Council has made clear that the 1989 Water Control Plan and the current RIOP are both inadequate. In fact, the Council has stated that these operational practices contribute to many of the river and lake problems that cause social, economic, biological and supply and quality gaps along the Chattahoochee. It is the Council's expectation that the revised Master Control Manual and new IOP will put forth significant operational changes contemplated to address the gaps.*

Chair Windom thought this language may be a bit too strong. Council member Jeff Lukken thought the language was not strong enough. Council member Steve Davis agreed with Jeff. Jeff said he wanted readers to know that the Council was “sending up the red flag” and they did not have enough information. Steve Davis commented that the Army Corps of Engineers did not have a whole view of the operation of the lakes and the Flint River basin. Council member Paul Chappell asked how old the Corps plan is. Jim said the plan was written in 1989 and there have been several revisions since that time.

Council member Robert Watkins asked Jim if the Council's concerns that the Corps updated plan reflect some the Council's concerns. Jim said they made an attempt at this and would be covered in Chapters 3 and 7.

### **Chapter 3**

*Page 3-2. Current [2009] Alabama demands are included in assessments.*

The council discussed how the Alabama demands were incorporated and shown in the report. The council also examined Figure 5-1. Council member Paul Chappel asked who

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provided the Alabama data. Steve Simpson explained that it was provided by Alabama through the USGS.

Council member Robert Watkins noted that Plant Farley (Southern Company) for last year on average withdrew 92 mgd and consumed 12 mgd. He asked where did the 36.4 mgd come from in Table 3-1 on page 3-3. He said that this number seemed high. Steve Simpson said they may be a multi-year average, but he was not sure. Jim Hawkins noted this would be a good item for an energy workgroup to examine. Council member Robert Watkins said that since Plant Farley was a base-load plant he would like to make sure accurate numbers are reported.

*Page 3-4, 100% percent consumptive demand assumption*

Chair Windom said although he understands why data does not exist, he was still concerned about the fact that land application and on-site sewage management systems are considered 100 percent consumptive. Council member Steve Davis said this assumption is conservative and was made for times of water scarcity. Steve said the Council may want to recommend a study to develop more accurate consumptive numbers. Steve Simpson said Item 8 in Chapter 7, Funding for Additional Resource Assessments, while not specific, may be a good place to capture this recommendation.

Tim Cash noted that he has heard similar discussions in three different councils. He read the following definition of consumptive use from the state water plan:

“Consumptive use” is the difference between the total amount of water withdrawn from a defined hydrologic system of surface water or groundwater and the total amount of the withdrawn water that is returned to that same hydrologic system over a specified period of time.

Tim emphasized the last part of the definition that water was returned to the same hydrologic system over a specified period of time. Tim noted that a daily time step was used in the model for the resource assessments. Jim Hawkins added that we will add a reference in the report for this section.

Also, Council member Steve Davis asked Jim if they can shade differently for consumptive use. Jim said they will investigate.

*Pages 3-10 to 3-14. Consequences and impacts of RIOP have been added to the text.*

While there was not enough time to read this section today, Jim Hawkins said he wanted to draw the Council’s attention to it. He said this section details the other gaps due to the inability of the current basin operating plan (RIOP) to meet instream uses and the impacts to those uses which have occurred. These impacts include: Economic and Recreational Impacts, Fish & Wildlife Conservation Impacts, Critical habitat Impacts, Reservoir

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Drought Operations Impacts, Hydropower Impacts, Water Quality Impacts, Flood Control Impacts, Reservoir Operations and River Flow Impacts.

*Page 3-2 Water Withdrawal Use Categories*

Steve Davis said while minimum instream is important, he thought that the four water withdrawal use categories (municipal, industrial, energy, and agriculture) were also important. Jim said this point was well taken.

#### **Chapter 4**

*Page 4-1. How or whether to include forecasted future demands for Alabama municipal & industrial?*

Jim explained how Alabama demands were incorporated into forecasting the future water resource needs. Basically, he said since Alabama would not provide forecasts to EPD and would only provide current day demands, only current demands were used for the future with no increase. Council member Steve Davis asked if there was a way one could mirror future demands on our side to Alabaman. Steve Simpson said there may be a way to do this on a node level. Chair Windom said he was comfortable with the report's language as long as the assumptions are clear. Council member Alan Bell asked if there were other ways to get this data from Alabama. Tim Cash said he was not aware of any. Council member Robert Watkins said he was aware of service that could get data and would pass it along to Jim Hawkins.

Chair Windom reminded the Council that he thought it was best for the Council to put the best numbers in the plan, however, he reminded the Council that there will be additional opportunities to revise this data in the next plan update.

*Page 4-6. How or whether to include future demand for thermoelectric?*

Jim Hawkins read the following paragraph from this section and asked for comments from the Council:

Based upon the litigious environment in the ACF Basin and gaps in the ability to meet existing instream uses, the Middle Chattahoochee Council sees little to no possibility for increased thermoelectric withdrawals in the Chattahoochee River. The uncertainties associated with the forthcoming update to the Army Corps of Engineers Water Control Manual for the ACF Basin and questions of legality regarding further allocation of a resource already not satisfying instream uses makes additional thermoelectric demand on the Chattahoochee River highly contentious. The Council does not endorse increased withdrawal forecasts on the Chattahoochee River and encourages EPD to disallow further permitting of the Chattahoochee River water for increased thermoelectric generation.

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Council member Robert Watkins said since there will be population growth in the region, we would handcuff economic growth with this language as written now. Council member Robie York reminded the council how competitive the environment is in attracting industries. He said in some cases we are competing against other councils and we would be remised to leave this paragraph stand without edits.

Council member Robert Watkins said rural counties can triple their tax base with a new power plant. He said Heard County is a good example. Council member Jeff Lukken asked how could we sanction another user if we have gaps now. Robert Watkins commented that the technology to preserve the water is just as important as the technology to clean the air.

There was some discussion about removing the last sentence from the paragraph, however, Chair Windom suggested this would be another item for the Energy workgroup to review and suggest appropriate wording.

## **Chapter 5**

*Page 5-1. Projected conditions in 2050 subject to current RIOP result in no improvement of impacts.*

Jim explained that the plan specifically said the Council takes exception to the manner in which the Corps has operated the system under the RIOP and indentified impacts associated with RIOP.

*Page 5-3 Council endorses Dr. Georgakakos's work.*

Jim pointed out that the plan specifically endorses the conditions in the modeling work performed by Dr. Georgakakos for further development and encourages discussion between EPD, regional councils, the Army Corps of Engineers, U.S. Fish and Wildlife Service, and stakeholders in the tri-state area regarding the advantages of this approach and further refinement and analysis which could be required.

*Page 5-3. Council seeks further analysis of aquifer yields*

Jim pointed out that since the forecasted demand is higher than the low sustainable yield, but lower than the upper sustainable yield, the Council is seeking further analysis of the aquifer yield and potential gaps. Council member Jimmy Bradley noted that the Clayton aquifer is important and we may impact those users.

*Page 5-4. Since water quality results will not be available until later this year, how does Council prefer to handle the review of this new text in the final draft to EPD (due in January)*

Jim Hawkins offered that Steve Simpson could do a synopsis and then offer a conference call to interested council members.

## **Chapters 6, 7 and 8.**

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Jim noted that the Council should refer to the highlighted EPD comments in the handout for these chapters and specifically pages 7-12 through 7-16 that detail the recommendation to the state.

Council member Robert Watkins commented hydropower lake helps hold down cost by providing a electric utility peaking capacity. He also said hydropower provides system reliability if another plant has an interruption in service which he said is extremely important.

Council member Jeff Lukken emphasized that all lakes need to “share in the pain” and asked Council member Robert Watkins if he had a problem with this. Council member Robert Watkins said he did have a problem with this.

Chair Windom said he was concern about who was going to tell a small lake owner that they needed to release water. Council member Robie York concurred and said this may be a dangerous type of precedent and may add more regulation on private land owners. Chair Windom said this may even provoke an owner to release additional water in time of drought greater than what is in an operating permit. Council member Robert Watkins noted that West Point lake was built primarily for flood control which also happens to make power while Georgia Power lakes were built to make power and also have other side benefits.

Council member Joe Griffith asked if it mattered where water was stored for energy production. Council member Robert Watkins said it did and it’s also important that it is available instantaneously. Chair Windom decided to park the discussion and let the energy workgroup discuss.

Chair Windom also said he was concerned with the management practice to discourage new or expanded land application system discharges. He did not want to put the region in any disadvantage. Council member Steve Davis suggested maybe more study is needed. He thought the Council could recommend better data and then the next update in five years look at where you can spend money on a management practice.

### **Energy Forecast Update**

Mitch Horrie with CDM presented the energy sector water demand results. Steve Simpson told the Council that the Executive Summary of this forecast is in the pre-meeting packet.

Mitch explained that he would be discussing the forecast methodology, forecast results, and guidance to Councils. He said the energy sector ad hoc group was comprised of

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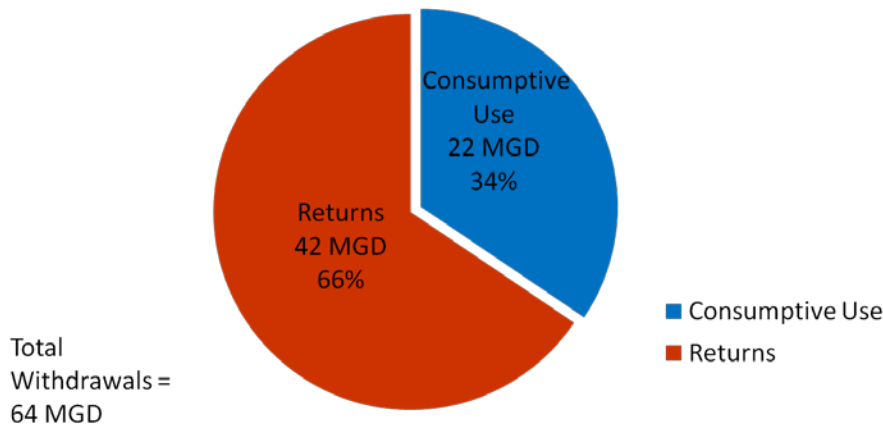
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representatives of the power industry (Georgia Power, MEAG Power, and Oglethorpe Power Corporation) and GEFA. The initial stages of the ad hoc group also included Dalton Utilities. The ad hoc group assisted with data collection, interpretation and technical review.

Mitch explained the forecast methodology. He said the base year water withdrawals and consumption were for 2005 and the power generation needs forecast was developed using statistical analysis based on the historical rates of energy use. He noted that data was collected for all NAICS 22 facilities in Georgia as well as planned facilities that have applied for an EPD air quality permit.

Mitch said that when he talks about water consumption that this refers to water that is consumed during the power production process and not returned to the stream. This is mostly as a result of evaporation during the cooling process. He said they found that statewide, 93% of the water withdrawn for the production of thermoelectric power was returned to the source.

Mitch presented the following graphic which shows the energy consumptive use in the Middle Chattahoochee.



Mitch said a regression analysis of statewide power generation and population from 1990-2008 created the statewide power needs scenarios. There were two power generation scenarios and 2 water demand forecast scenarios, making for 3 total water demand forecasts.

The baseline power needs scenario uses the mean parameters from the regression analysis, while the alternative power needs scenario uses the upper limits of the



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parameters while still within the 95% confidence interval. This is a high scenario to be conservative in the water demand planning perspective.

The 2017 water demand scenario presents what would happen if we did not add any new facilities beyond what is existing, permitted or planned. Under the 2017 Capacity Scenario, existing and planned facilities produce 100% of statewide power needs until their capacity factors reach maximum sustainable levels.

Mitch noted each power generation combination has a maximum sustainable capacity factor. The energy ad hoc group assisted in developing these factors. The maximum sustainable capacity factor is not the “optimized” or most efficient level of power generation. It is the highest level of output that can be sustained over a period of time.

After describing more about the results, Mitch presented the following conclusions:

- Statewide energy sector withdrawals are forecasted to increase at about 0.20 – 0.25% annually from 2010 to 2050.
- Statewide energy sector consumption is forecasted to increase at about 1.80 – 1.85% annually from 2010 to 2050.
- Trends indicate more capacity development for water consumption intensive power generation (those with cooling towers)
- Little to no capacity development for water withdrawal intensive power generation processes (those with once-through cooling).
- Power generation from renewable energy, primarily biomass, will increase over the planning horizon.
- The additional capacity scenario presents the forecast most useful to Councils in making regional water resources planning decisions.

Mitch then offered the following guidance:

- Location of any assumed additional capacity beyond 2017 is unknown.
- Councils can incorporate forecasted withdrawals and consumption directly attributable to existing and planned facilities into their regional plans.
- For demands associated with assumed additional capacity beyond 2017, Councils may wish to address the issue more qualitatively by trying to understand the water resources implications should some percentage of future additional power generating capacity locate within their regions.

Mitch then asked the Council if they had any questions.

Chair Windom asked if anyone gave them information past ten years. Mitch said no.

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Jeff Lukken asked if recirculating type cooling is the best. Mitch said while this type of cooling has lower withdrawal rates, it has higher consumption rates due to evaporative losses.

A council member asked if there were any other power plants that don't need a EPD permit? Mitch said there could be if they don't meet the 100,000 gallons per day reporting threshold.

Chair Windom asked if the Council needed to assume we should not have more electrical generation in the Middle Chattahoochee. He then asked if Georgia Power had plans beyond 2017? George Martin with the Georgia Power Company said there were no "firm" plans beyond 2017.

Council member Paul Chappell asked if there was a way to proportion the future energy production based on the percentage of growth for each Council. Chair Windom liked this idea, but said that each Council would need to do it.

Chair Windom next asked Council members who were interested to volunteer to serve on the energy workgroup. The following Council members volunteered:

- Robert Watkins
- Paul Chappell
- Steve Davis
- Jimmy Knight
- Jeff Lukken

Chair Windom asked Council member Robert Watkins to chair this workgroup.

### **Local Elected Officials and Public Comments**

Next, the Council provided time for local elected officials and the general public an opportunity to address the council. There were no elected officials or members of the general public.

Next, Patti Lanford, DNR-WRD, asked to speak to the Council. She said she has been visiting other councils and one recommendation they may want to include is that the interim streamflow may need to be reviewed or studied.

### **Wrap-Up and What to Expect Next Meeting**

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Chair Windom reminded the Council that he would like comments about the draft plan from Council members by December 10.

Council member Robert Watkins asked if any talking points had been developed. Jim Hawkins said no, but that they could develop ten PowerPoint slides to serve as talking point as council members reach out to the public.

Jim Hawkins said they would post an edited copy of chapter 6-8 online and make sure it was obvious from the homepage of the Council's website.

Steve Simpson reminded the Council that the 319(h) grant opportunities discussed at the last meeting still existed if the Middle Chattahoochee council wants to take advantage of this. He asked Council members to send any ideas to him.

The Council discussed the location of the next meeting. It was decided to have the next meeting on January 12, 2011, at Callaway Gardens. Chair Windom said if there was any scheduling difficulty with Callaway Gardens, Lagrange would be the backup location.

#### **Council Meeting 8 Evaluation**

At the conclusion of the council meeting, the members completed an evaluation form on the meeting and the meeting was adjourned.

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**Attachment 1:**  
**Middle Chattahoochee Water Planning Council**  
**Council Meeting Attendance – November 10, 2010**

**Council Members**

Alan Bell  
Jimmy Bradley  
Paul Chappell  
Steve Davis  
Larry Dillard  
Thomas Ellis  
Joe Griffith  
Bill Heath

Harry Lange  
Jeff Lukken  
Jimmy Thompson  
Robert Watkins  
Don Watson  
Matt Windom  
Jim Woods  
Robie York

**Council Members Not In Attendance**

Larry Clark  
Phillip Eidson  
Gardiner Garrard  
Bill Gregory  
Gerald Greene  
Jimmy Knight  
Joe Maltese

Aaron McWhorter  
Gordon Moss  
Ken Penuel  
Denney Rogers  
Walter Rosso  
Randy Simpkins  
Brad Yates

**Planning Consultants**

Jim Hawkins, B&V  
Steve Simpson, B&V

Robert Osborne, B&V  
Kristin Rowles, GWPPC

**Georgia EPD**

Tim Cash, Assistant Branch Chief  
Bill Morris

**Georgia State Agencies**

John Loughridge, Georgia Soil and  
Water Conservation Service  
Patti Lanford, GA DNR – WRD  
Fisheries  
Joe Krewer, GA Department of  
Community Affairs

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MIDDLE CHATTAHOOCHEE WATER COUNCIL  
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 Public Sign-In

Name	Organization
Roger Martin	Chattahoochee Riverhead
John Loughridge	GSHCC
Lance Ruffen	River Valley Regional Commission
Patti Lanford	GA DNR - WRD fisheries
George Martin	GA POWER CO.
DAVID WORD	JTA
JAMES EMERY	Troup County
Jeffrey Harvey	Farm Bureau
Joe Krewer	DCA (Partner)
Mitch Horrie	CDM

