



# Georgia's State Water Plan

## Middle Chattahoochee Water Council Meeting 7 September 14, 2010 - City of Franklin Agenda

### Objectives:

- 1) Committee efforts update
- 2) Water quantity and water quality management practices selection
- 3) Discuss WDCP drafts and development

8:30-9:00 a.m.	Registration
9:00-9:20	Welcome, Introductions, Chairman's Discussion - Matt Windom <i>Debriefing of the September 3rd ACF joint leadership meeting; October 6th Joint Meeting in Macon, MCH Council schedule of meetings and deliverables</i>
9:20-10:00	Draft WDCP Sections 1-5 - Jeff Lukken <i>Review drafts and comments provided by EPD and Work Group Members, approve posting draft to website</i>
10:00-11:00	Surface Water Availability Recommendations - Resource Assessment Committee - Matt Windom & Jim Hawkins <i>Gaps in the Chattahoochee, Tallapoosa &amp; Flint basins, Draft WDCP Chapter 6</i>
11:00-11:15	Break
11:15-12:00	Desired State Water Quantity Modeling - Dr. Georgakakos, GA Tech
12:00-1:00 p.m.	Lunch
1:00-1:15	Judge Magnuson Ruling - Jim Hawkins
1:15-1:45	Endangered Species Act - Sandy Tucker, USFWS
1:45-2:15	Water Quality Management Practices Recommendations - Resource Assessment Committee - Steve Simpson <i>Review draft recommendations, Clean Water Act Section 319(h) grant opportunities and fall schedule for water quality modeling</i>
2:15-2:30	Groundwater Sustainable Yields Update - Steve Simpson
2:30-2:45	Break
2:45-3:15	Conservation - Jim Hawkins
3:15-3:30	WDCP Sections 6-8 Development - Jim Hawkins <i>Schedule and contents, especially recommendations to the State</i>
3:30-4:00	Local Elected Official and Public Comments
4:00-4:30	Wrap Up/CM8 Preview/Council Meeting 7 Evaluation

**Middle Chattahoochee Water Council  
Milestone Schedule**

<u>Completion Date</u>	<u>Milestone</u>
September 14, 2010	Council Meeting 7
September, 2010	Plan Review Committee Meeting
October 6, 2010	Joint Meeting in Macon
October, 2010	Plan Review Committee Meeting
October 15, 2010	Draft WDCP Sections 6, 7, 8 Delivered to GA EPD
November, 2010	Council Meeting 8
November, 2010	MCH Receives Water Quality Modeling Results
December, 2010	Plan Review Committee Meeting
January, 2011	Council Meeting 9
January 31, 2011	Recommended Plan to GA EPD
March, 2011	Plan Review Committee Meeting
March, 2011	Council Meeting 10
March-May, 2011	Public Notice of Draft Plan
June, 2011	Final Production of Adopted WDCP
June 30, 2011	GA EPD Approves MCH Regional WDCP

## Regional Water Councils Joint Meeting October 6, 2010

The first round of Regional Council Joint Meetings, held in January 2010, focused on the results of the resource assessments, and was structured by basin and aquifer. Now, Councils are moving towards selecting management practices and solutions to water resource issues. The next Joint Meeting will focus on management practices and solutions.

**The Regional Water Councils Joint Meeting scheduled for October 6, 2010 will:**

- Provide a forum for all Councils to discuss shared issues and solutions
- Serve as an informational session related to proposed management practices
- Begin to integrate solutions into regional and statewide perspectives and work towards implementation.
- Provide coordination between adjacent councils or those that share resources, as called for in Council Memoranda of Agreement, and ensure coordination of planning across the boundaries of planning regions as specified in the Statewide Water Plan<sup>1</sup>.

**Panels made up of representatives from councils (approx 4-6 councils per topic) will discuss four general topics. Each council representative will touch on:**

- How the issue impacts their region specifically,
- Management practices and solutions the council is proposing, and
- Implementation steps and statewide implications moving forward.

**Possible Topics for Panel Discussions:**

- Water Quality issues – Nutrients in Lakes
- Groundwater Availability and Coastal groundwater (saltwater intrusion)
- Water supply sources (Groundwater wells [dispersed supply] and reservoirs)
- Water Supply needs in 2010 (instream flows and current gaps)
- Water Supply needs in 2050 (meeting forecasted demand and instream flow targets to avoid future gaps)
- Meeting demand for wastewater treatment (septic vs centralized wastewater treatment)
- Water Conservation Practices
- Agricultural water use
- Water resource issues for urbanizing areas and areas undergoing significant land-use changes (urban runoff and nonpoint source pollution)
- Management Practices and solutions for limited assimilative Capacity
- Management practices to support Instream Flow Regimes
- Coordination with local governments and neighboring states
- Interfacing with local governments and water and wastewater utilities on implementation
- Other?

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<sup>1</sup> “Coordination activities may include joint work sessions of adjacent water planning councils, convened by the councils or EPD.” (State Water Plan 14.6.ci)

**Please identify the four topics of greatest interest to you and identify Council members who would be good panelists on each topic.**

Council	Topic	Panel Representative

To: Middle Chattahoochee Water Planning Council

From: Jim Hawkins, Black & Veatch and Steve Simpson, Black & Veatch

cc: Tim Cash, Assistant Branch Chief, GA EPD

Subject: Meeting Summary: Council Meeting 6 on June 22, 2010

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The council meeting was held on June 22, 2010 at the Columbus Convention & Trade Center, Columbus, GA. The list of attendees is attached. In addition to this summary, all the presentations (slides) discussed in this meeting will be posted on the Middle Chattahoochee web portal (<http://www.middlechattahoochee.org/>). The public sign-in sheet is included as an attachment.

### **Welcome, Introductions, and Chairman's Discussion**

Council Chair Matt Windom welcomed members and thanked everyone for attending. Matt Windom provided the invocation. He then provided an opportunity for the public attending the meeting to introduce themselves.

Matt said since they had last met, he and Council Vice-Chair Harry Lange attended the Joint Leadership Meeting with ACF Water Councils on May 10, 2010. The meeting was primarily with the Lower Flint and Middle Chattahoochee Chairs and Vice Chairs. Matt thanked Jimmy Knight for attending the meeting as well. Matt said he thought the sense of cooperation with the other councils was good, and that the councils shared a concern over the shortfall at Bainbridge, with the Lower Flint council feeling that the shortfall concern was overstated. Matt said there was general concern and consensus that elimination of agricultural irrigation would be a non-starter for the Councils; however, other options should be explored. Harry Lange thought it was good building more cooperation between the Councils.

Matt also advised the council that on June 7<sup>th</sup>, the Middle Chattahoochee, Upper Flint, and Lower Flint-Ochlockonee water council chairs and vice chairs met with EPD Director Allen Barnes. Matt said that Director Barnes told the council leaders that he is not sure that some gaps can even be closed, but he expects that the councils will work toward closing gaps. Matt said several of the council leadership felt that the development of a plan that closes all the gaps was a problem; a more realistic effort would be a plan that shows we were working toward a solution. Matt reported that part of the plan may

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

involve asking for more information. He said another point that was discussed was the importance of sharing information with the local governments, and emphasized that each council member needs to help communicate the effort to local governments. Matt also discussed the issue of funding management practices and the need to identify funding sources in the plan. Overall, he thought the meeting with Director Barnes was productive and open.

There were no questions from the Council members

Since there was not a quorum, Chair Windom deferred approval of the last council meeting summary and moved forward with the agenda.

### **Assessment Forecasts Update**

Robert Osborne from Black and Veatch gave an update on water demand forecasts. Corrections have been made in several forecasts, and in some cases, the forecasts are still not complete (i.e., energy). Robert explained how transient population from Fort Benning has been incorporated into the water demand forecasts. The basis of this data was provided by Council Member Steve Davis.

The agricultural water demand forecasts have been revised and include forecasts for nursery operations, as well as current snapshot information for animal operations and golf courses. Aaron McWhorter questioned the agricultural irrigation projections summary that shows no irrigation in Heard County; this is not correct.

Council member Jeff Lukken asked for clarification on how the Ft. Benning transient population was used in the demand forecasts, asking, "Were the figures added to the population numbers?" Robert replied saying that the OPB population figures do not include transients, but for water demand forecasting we summed the water demand forecasts for the permanent population included in the OPB forecasts with the water demand forecasts for transient population at Ft. Benning to determine the total water demand forecasts.

Joe Maltese questioned whether the energy information was from Georgia Power only, and what the vetting process was. Steve Simpson replied that EPD has formed an industry input group that includes Georgia Power; the current resource assessment and initial future assessment uses existing reported use data, not permitted quantities.

Matt Windom voiced a general concern about whether it would be appropriate to include a safety factor in the demand projections to account for future industries that may not be present today, as well as a more conservative approach to water planning to ensure that adequate supply is available in light of uncertainties in future projections. Steve Davis

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

agreed with this concern. Matt Windom asked whether other councils were considering a “safety factor” approach.

Joe Maltese advised of a concern about coordination when future conditions change. Tim advised that the plans will be used as a checklist in addressing future permitting and GEFA financing activities.

### **Resource Assessment Work Group**

Jim said the work group has been meeting every three to four weeks since April. Members include Steve Davis, Jimmy Knight, Joe Maltese, Gordon Moss, Denney Rogers, Don Watson, Jeff Lukken, Matt Windom and Harry Lange. Jim brought the Council’s attention to the Work Plan, which presents high level goals, a fall-summer schedule, and a summary table of the water quantity modeling requested for the ACF Basin (this provides direction to Wei Zeng’s modeling group at EPD). He stressed this is a work in progress.

Jim explained that both Scenario 5 and 6 will describe two scenarios in 2050. Scenario 5 (Future State) will be based on current operating rules for the Federal lakes. Scenario 6 (Desired State) will depict the ACF subject to changes to the operating rules for the Federal reservoirs. Jim stressed that Scenario 5 are the criteria by which the Council was intended to evaluate the future state. It also provides important references and comparisons to the 2010 Baseline analysis . However, the work group recognized that the current operating rules on Federal Lakes are under review and may change again after the AL-GA-FL litigation is settled. Therefore, the work group decided to evaluate the ACF Basin subject to some changes to the operating rules, hence Scenario 6. EPD has been agreeable to consider Scenario 6, but has reminded the work group that changes to the operating rules will require Congressional authorization and take many years to gain approval.

Jim noted that the committee has just begun to consider the initial results of Scenario 5 and how to express the gaps. The group hasn’t yet begun to consider management practices to close gaps. Jim said the June 10, 2010 work group meeting minutes (sent to all Council members) provide a good snapshot of the group’s latest efforts.

Council member Joe Maltese asked for clarification on the determination of “average shortfall” and “maximum shortfall” and asked what was the frequency of the averages? Jim responded saying the average shortfall was the average of all days until 2050 wherein the modeled flow was below adjusted flow regime. At the Bainbridge node, there are approximately 2500 days during the 70 year planning period wherein this shortfall occurs. The maximum shortfall is the one day having the greatest shortfall. Jeff Lukken commented that, since approximately 90 percent of the time there is no shortfall, that he is still most concerned about drought conditions.

Middle Chattahoochee Water Planning Council  
 Council Meeting 6  
 Meeting Date: June 22, 2010

B&V Project 164139  
 June 22, 2010

Council chair Matt Windom noted that the 2007 drought showed the largest number of shortfall days (in any one year) and that the maximum shortfall occurred during the 1986 drought.

Matt also noted that there are no water quantity shortfalls in the Chattahoochee river system since conservation storage in the Federal reservoirs are used to supply the future demands. Council member Joe Maltese commented that the reservoirs are sacrificed to meet rivers flows and demands and that this may not represent a state that the Council will reach consensus approval.

Chair Windom thanked Black & Veatch for their effort.

### **Surface Water Availability Forecasts and Modeling Conditions**

Steve Simpson reviewed the results of the recent surface water availability model runs. Steve explained that the new analysis includes two model runs:

1. Revised Current Conditions: This updates the current conditions model run presented at the joint meetings in January. Revisions include changes to demand inputs, including Alabama demands, energy demands, and agricultural demands.
2. Baseline Future Conditions: This includes 2050 forecasted demand conditions with no new management practices applied.

Steve noted that the process was still very active and that further revisions were to be expected. Steve presented the following results.

### **Surface Water Availability Model Results** **Revised Current Conditions and Initial Future Conditions**

#### **FLINT**

	<b>Length of Shortfall(% of time)</b>	<b>Average Shortfall (cfs)</b>	<b>Long-term Average Flow (cfs)</b>	<b>Maximum Shortfall (cfs)</b>	<b>Corresponding Flow Regime (cfs)</b>
<b>MONTEZUMA</b>					
Current	<1%	61	3391	94	623
2050	<1%	1	3429	1	593
<b>BAINBRIDGE</b>					
Current	13%	361	7880	1376	2506
2050	11%	316	7981	1215	2506

#### **CHATTAHOOCHEE**

Middle Chattahoochee Water Planning Council  
 Council Meeting 6  
 Meeting Date: June 22, 2010

B&V Project 164139  
 June 22, 2010

	<b>Demand Shortage (cfs)</b>	<b>At-site Flow Requirement Shortage (cfs)</b>	<b>Minimum Reservoir Storage (acre-feet)</b>	<b>Minimum Percentage Reservoir Storage</b>	<b>Basin-wide Flow Requirement Shortage</b>
<b>WHITESBURG</b>					
Current	0	0	539,960	50%	None
2050	0	0	471,867	43%	None
<b>COLUMBUS</b>					
Current	0	0	14,310	5%	None
2050	0	0	14,269	5%	None
<b>COLUMBIA</b>					
Current	0	0	30,816	13%	None
2050	0	0	64,924	27%	None
<b>WOODRUFF</b>					
Current	0	0	585,086	36%	None
			at Buford, WP, & WFG	at Buford, WP, & WFG	
2050	0	0	551,060	34%	None
			at Buford, WP, & WFG	at Buford, WP, & WFG	

Steve explained that the Bainbridge node shortfall includes both the effects of consumptive water use between Montezuma and Bainbridge as well as diversions of water to reservoirs in the upper part of the basin. Steve advised that the diversion effect included both physical pumping to reservoirs and tributary flow interception by reservoirs. To better explain the maximum shortfall, he presented the following breakdown of results showing the contribution to the shortfall by consumptive water use and the calculated contribution to the shortfall by upper basin diversions.

Middle Chattahoochee Water Planning Council  
 Council Meeting 6  
 Meeting Date: June 22, 2010

B&V Project 164139  
 June 22, 2010

### BAINBRIDGE NODE GAP – SUMMARY

Scenario	Length of Shortfall (% of time)	Average Shortfall (cfs)	Long-term Average Flow (cfs)	Maximum Shortfall (cfs)	Corresponding Flow Regime (cfs)
Total Flow Gap	13%	361 (233 MGD)	7880 (5093 MGD)	1377 (890 MGD)	2506 (1620 MGD)
Due to Lower Basin Water Use	13%	339 (219 MGD)	7880 (5093 MGD)	816 (528 MGD)	2506 (1620 MGD)
Due to Upper Basin Diversion	6%	72 (46 MGD)	7880 (5093 MGD)	636 (411 MGD)	4246 (2744 MGD)

Steve

reminded the Council Members that Wei Zeng encouraged the council to focus on the average shortfalls; the bottom line from this analysis is to focus on what management practices can be implemented to reduce consumptive water use.

Council member Steve Davis expressed concern that if increased returns from the Metro North District were due to conversion of septic tanks, he believed this was not enforceable. Council chair Matt Windom agreed and reminded the Council that we have to be comfortable with these numbers. Tim Cash noted that while the plan does not have a separate enforcement mechanism, the plan is enforceable because EPD will not be allowed to issue a permit and GEFA will not be allowed to provide funding if an entity is not following the water plan.

Council member Jeff Lukken expressed the view that on average, and approximately 90 percent of the time, there are no gaps and no shortfalls. He urged the council to keep this in mind and to focus on times of drought and the practices to address times of shortfall.

Council member Ken Penuel asked whether the Lower Flint council had endorsed a reduction in consumptive use. Steve said while agricultural concerns use a lot of water, the agriculture community wants to ensure that the associated water demands are not overstated. The Lower Flint Council has been focused on comparing the agricultural projections with the agricultural metering program results and now appears to be fairly satisfied that the numbers are in the right range.

Chair Windom commented that we are going to do our best to close the gaps in the ACF Basin and these measures will require the ACF Councils' cooperation.

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

Council member Ken Penuel asked “So what is the perception [of the initial Scenario 5 results]? Are the results good or bad?” Steve said the perception is different for each user.

Council member Joe Maltese said the Army Corps of Engineers modeling suggests that the gaps are much greater. He said the Council has to understand what these shortfall numbers means for the drought. He said it is all relative with the modeling assumptions. For example, are we starting with full or half-filled lakes? Steve noted that he believes the EPD model started with the lake full at the beginning of the modeling runs. Council Member Aaron McWhorter commented that to assume the lakes are going to be full is somewhat naïve and added, “The lakes were not full just prior to the 2007 summer drought and yet we managed through these conditions”.

Council member Don Watson asked if the modeling reflected Alabama demands. Steve said yes, both the existing and future resource assessment runs include only existing demands, as no forecasting was performed for Alabama.

The increased returns in the Columbia node were discussed. Steve Davis advised that this make sense, as increased water demands in the Columbus area are reflected at the Columbus node and the increased returns were reflected in the Columbia node. Since the returns from the Columbus area are greater than water withdrawals between Columbus and Columbia, consumptive demand appears to be negative.

Steve Simpson then presented several graphs prepared to help the council express the qualitative gaps identified. The two primary concerns were West Point Lake level and river flow at Columbus. The 2050 model results were used to calculate an exceedance curve by level for West Point Lake. This curve can be used to express the amount of time lake level is projected to be below desired levels, which some council members view as a qualitative gap. The 2050 model results were also used to calculate a daily flow exceedance curve at Columbus. This curve can be used to express the amount of time river flow is projected to be below desired levels, which some council members view as a qualitative gap. Matt Windom commented that he found them useful. Joe Maltese asked if another curve could be added to the lake level exceedance graph to indicate lake level without the effects of consumptive water use. Steve Simpson advised that he was not sure if the model results could be disaggregated this way, but would check.

Chair Windom asked Steve to present surface water availability modeling results for the Tallapoosa basin. Steve said these results were not included in today’s presentation, but would be included in the presentation online.

Council member Jeff Lukken said he appreciated Steve and Jim’s approach to explaining these models and appreciated them making them easier to understand. He noted he has seen presentations of Dr. Aris Georgakakos’ model and it appeared pretty impressive. He thought it would be good for the Council to view this model. Steve said that the

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

committee talked about a demonstration of the model. Steve said that Dr Aris Georgakakos assisted EPD with the development of the model being used by EPD for resource assessments. Steve advised that both Wei and Aris agree that either tool will give similar results with the same inputs.

Council member Joe Maltese said he thought there were differences with the model outputs, even with the same inputs. He noted that solutions become clearer with Dr. Georgakakos' model.

A handout documenting some of the differences in modeling approach and assumptions was distributed and reviewed with the council. This summary includes lake levels, storage amounts, target flows, etc. The summary is a draft in progress, and has been checked with EPD. Joe Maltese requested that the summary include an additional row for storage and information on FERC license flow requirements.

Chair Windom said if the council wants to bring Dr. Georgakokas to a Council Meeting to review his model he would support this. Tim Cash noted Wei and Georgakakos agree they are using the same tool and they all agree the difference is in the inputs. He noted that Georgakakos's River Basin Planning tool is the foundation for our work. Jim said that any desire by the Council to consider Dr. Georgakakos' work should be done in July in order to stay on schedule.

### **Surface Water Quality Forecasts and Modeling Conditions**

Steve Simpson reminded council members that GA EPD was performing two sets of water quality modeling, dissolved oxygen modeling for point source discharges and watershed modeling for point and nonpoint discharges. The schedule for the completion of the watershed modeling for the ACF is unchanged and is still expected in November of 2010. Since the last council meeting, GA EPD has performed additional dissolved oxygen modeling for point source discharges and has prepared a technical memorandum summarizing the results. Steve presented the surface water quality modeling results from this technical memorandum, which were recently received from GA EPD.

Steve showed two Georgia maps which showed the current permitted municipal and industrial infrastructure capacity compared to the projected 2050 wastewater generation projections. This comparison shows that total existing permitted flows are similar to 2050 projections for many counties in the state. Therefore, dissolved oxygen modeling results under permitted conditions should offer a reasonable approximation of conditions under 2050 projections.

Steve then showed the list of permits that were modeled for the Chattahoochee River Basin. Steve reminded the Council that it would be good for them to review it for

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

corrections when they can download this presentation. Steve explained that the notes column in the list is helpful in understanding how each permit was modeled.

Steve reviewed the proportion of stream reaches in the council in the various categories of available assimilative capacity and noted that the models gave us the expected results, that less assimilative capacity was available under permitted conditions than under existing conditions. Steve stressed that most of the tributaries have been completed, but there is not data on the main stem rivers that were being modeled hydrodynamically. Steve then reviewed the available assimilative capacity in a series of maps for the region.

Steve then explained the results for the Tallapoosa basin, which also showed areas with and without additional available assimilative capacity.

Chair Windom noted that they would move the Army Corps of Engineers presentation to after lunch, and the Council adjourned for lunch.

### **U.S. Army Corps of Engineers Update to ACF Water Control Manual**

Jim reviewed a presentation developed by Andy Andrews with the Army Corps of Engineers covering the same information presented at the ACF Water Conference in Bainbridge on June 1, 2010.

The presentation summarized the longstanding tri-state water wars, Judge Magnuson's court ruling on July 17, 2009, and some of the ruling's impacts, in the context of the update of the ACF Water Control Manual. The Army Corps of Engineers has done the following since the ruling:

- Reopened NEPA scoping due to new and significant information
- Revised Notice of Intent
- Working to comply with Magnuson Ruling in updating the Water Control Manual

The presentation noted that the Army Corps of Engineers will not pursue reallocation for water supply in the Water Control Manual update effort. If the states reach a settlement, the Corps will submit the agreement for consideration and possible referral to Congress. If Congress enacts legislation regarding ACF management, the Corps will update the operations manual accordingly.

The presentation noted that the current water control manual is outdated and inadequate with regards to drought operations. The water control manual should address current conditions and needs in the basin, including drought operations. The presentation explained the process and schedule for updating the water control manual. The process is due to be completed by June 2012. The Army Corps of Engineers noted changes in this schedule might arise due to the litigation, state negotiations, or the ACF schedule.

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

The presentation noted the following as summary points:

- The Corps cannot resolve the issues created by the Magnuson ruling through the water control manual update process.
- The water control manual effort is an update, not a study.
- The issues are complex.
- The water control manual updates will not meet all stakeholder expectations.
- The Magnuson ruling has “Draconian” implications.

Council member Ken Penuel asked if Operating Zone 4 was related to our modeling scenarios. Jim said no, that this would be operating during a drought scenario.

Council Member Joe Maltese said we probably should expect a new round of litigation after the water control manuals are updated.

In summary, Jim said that the Corps will not be seeking to resolve issues related to the Magnuson ruling in the control manual update, but it will comply with the ruling. The control manual can also be modified based on any settlement or Congressional action that might affect it. The Corps will next provide an opportunity for public comment next year.

### **Management Practices Update**

Jim provided the council with a management practices selection handout, and reviewed the outline with the council. The draft document was developed starting from the categories of management practices and some of the individual management practices from the electronic survey of the Middle Chattahoochee Water Council previously performed. The draft document also includes additional detail and options, particularly for agricultural water use. There was some discussion that council members objected to some of the management practices listed. Kristin advised that management practices were listed with the intent to cover a wide spectrum of options so that the process solicits and documents council input on which management practices options are eliminated or kept. Jim advised that group discussions will be conducted later in the meeting and encouraged council input.

Jim emphasized that water conservation is considered a priority practice and must be included in the Council’s plan. He presented slides on water conservation practices based on the water conservation guidance provided by GA EPD. The guidance divided water conservation practices into four tiers as follows:

- **Tier ONE practices** – mandatory through rules or law (permittees)
- **Tier TWO practices** – options addressed through rule (permittees)
- **Tier THREE practices** – optional, basic (permittees and others)

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

- **Tier FOUR practices** – optional, beyond basic to help “close the gap” (permittees and others)

The presentation cited existing and expected regulations related to water conservation and deriving from the Statewide Water Plan and the recently passed Water Stewardship Act, as well as the Water Conservation Implementation Plan.

The presentation noted that many water conservation goals and practices are available for consideration. Some are already required, and new requirements will be going into place in the coming months. For the regional councils, it is expected that the councils will decide which water conservation goals and/or practices are appropriate for their region and include them in the WDCP. Jim encouraged the Council to read the more in depth information in the premeeting packet.

### **Management Practices Selection Discussion**

The council broke up into three groups and discussed screening the management practices for various categories. Following the discussions, the facilitators and council members reported back the discussion highlights to the entire group.

#### Water Demand & Return

*Facilitator: Kristin Rowles*

Kristin reported that the group consensus was no options were really off the table completely. There are areas we need to flesh out with more details on practices. There is no one-size-fits-all approach for the practices. Management practices should include specific practices identified for drought conditions. Selection of practices should leave flexibility for local governments to adapt to local conditions. For agricultural practices, we will likely defer to input from the LFO and UFL councils, which have more expertise in these practices. Management practices concerning septic systems will probably need discussion at the full council level due to differing opinions on this issue.

#### Water Supply

*Facilitator: Jim Hawkins*

Jim reported a general concurrence of the draft list in the group. The group also noted:

- Encourage development of groundwater wells for M&I demand with emphasis on new development, expanded supplies, and gardening and landscaping. Consider work by Dr. Tom Crawford at West Georgia State regarding well yields in the Piedmont.
- Don't consider desalination; it's not practical
- Need better quantification of Alabama demand projections and we should scrutinize Alabama return flows for IBT communities such as Opelika.

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

- Consider recommendation for DeKalb County (Metro North District) to return future flows to the Flint vs the Chattahoochee.

### Water Quality

*Facilitator: Steve Simpson*

*Council Members: Jimmy Knight, Joe Maltese, Gordon Moss, Ken Penuel, Jim Woods*

The group reviewed a draft water quality writeup that identified a number of things already in place to deal with water quality, such as existing permitting programs, state mandated minimum stream buffers, etc. The group identified that many of the existing programs and practices should be improved. The group also identified potential desirable practices as reducing the permitted discharge limits of point sources, eliminating or reducing future land application system permits, improving enforcement of erosion and controls. Better land use planning, conservation land acquisition programs, and encouraging dense developments to have wastewater treatment versus septic systems. The group also discussed already developed best management practices and agreed that the council should encourage better implementation of best management practices, encourage the continued collection of more water quality information. The group also discussed the potential impact of proposed Florida nutrient standards; a fair and equitable way of addressing the nutrient standards needs to be developed.

Following the group reports, Jim indicated that this input will be incorporating in updated version of Chapter 6 for ongoing consideration by the council.

### WDCP Development

Jim referred the council members to pages 47-53 of the pre-meeting packet. This is a revised draft table of contents for the regional Water Development and Conservation Plan (WDCP). Jim noted that this is a guideline for the council to follow in developing its plan. It can be adapted to regional conditions.

Chair Windom suggested forming a committee to assist the planning contractor in reviewing drafts of the plan. Paul Chappelle, Steve Davis, Jimmy Knight, and Joe Maltese volunteered for this committee. After some discussion, it was suggested that Council Member Jeff Lukken should be the chair of this committee. Matt asked Jim to follow up with Jeff to see if he would be willing to serve as the chair.

### Local Elected Officials and Public Comments

No local elected officials and public members signed up to provide comments; however, Council Chair Matt Windom asked if there were any members of the public who would like to comment. The following attendees made public comments:

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

Dick Timmerberg, West Point Lake Coalition, said he was glad that lake levels are being looked at; he believes lake levels should be looked at as the priority. He reminded the Council that Judge Magnuson reiterated that the lakes were originally authorized for specific purposes; he is concerned that the resource assessment process considers storage in the four federal reservoirs being used for other purposes. Dick advised that he believes wants versus needs should be identified, and then all involved should act to be good stewards of the resource. Dick encouraged the Council to review Dr. Georgakakos' model.

James Emory, Troup County Engineer, commented that he was glad to see lake levels acknowledged. However, the resource assessments have ignored the original authorized lake purposes. James pointed out that the lakes impound about three fourths of the entire Chattahoochee basin stream reach length.

Bert Earley, water quality forester with the Georgia Forestry Commission, said that the GFC were recognized by GA EPD as the lead agency for forestry water quality. He advised that GFC performs a survey every two years plus has a quality assurance evaluation program to document implementation of Best Management Practices. Bert indicated he is available to the council and will provide the survey information for B&V to distribute to the council. Jim advised that this document will likely be posted online.

#### **Next Meeting**

Chair Windom asked the Council to set a date for the next meeting. The Council selected September 14, 2010 in the City of Franklin. Jimmy Knight volunteered to assist in identifying meeting arrangements.

Matt indicated that he has appreciated the efforts of the council in furthering the planning effort. Council member Paul Chappell requested additional clarification in what to print out and bring to Council meetings. Jim advised that better direction would be provided.

Middle Chattahoochee Water Planning Council  
Council Meeting 6  
Meeting Date: June 22, 2010

B&V Project 164139  
June 22, 2010

---

**Attachment 1:**

**Middle Chattahoochee Water Planning Council  
Council Meeting Attendance – June 22, 2010**

**Council Members**

Paul Chappell  
Steven Davis  
Gardiner Garrard  
Bill Gregory  
Jimmy Knight  
Harry Lange  
Jeff Lukken  
Joe Maltese

Aaron McWhorter  
Gordon Moss  
Ken Penuel  
Denney Rogers  
Jimmy Thompson  
Don Watson  
Matt Windom  
Jim Woods

**Council Members Not In Attendance**

Alan Bell  
Jimmy Bradley  
Larry Clark  
Larry Dillard  
Phillip Eidson  
Thomas Ellis  
Gerald Greene  
Joe Griffith

Bill Heath  
Walter Rosso  
Randy Simpkins  
Robert Watkins (sent representative)  
Brad Yates  
Robie York

**Planning Consultants**

Jim Hawkins, B&V  
Robert Osborne, B&V  
Kristin Rowles, GWPPC

Steve Simpson, B&V  
Mark Masters, GWPPC

**Georgia EPD**

Tim Cash, Assistant Branch Chief  
Bill Morris

**Georgia State Agencies**

Bert Earley, Georgia Forestry  
Commission



## MIDDLE CHATTAHOOCHEE WATER COUNCIL

Meeting #6 June 22, 2010

**Council Members**

**Attending**

Alan	Bell	
Jimmy	Bradley	
Paul W.	Chappell	✓
Larry	Clark	
Steven R.	Davis	✓
Larry F.	Dillard	
Phillip	Eidson	
Thomas A.	Ellis	
Gardiner W.	Garrard	✓
Gerald	Greene (Ex-Officio)	✓
Bill C.	Gregory (Alternate)	✓
Joe	Griffith	
Bill	Heath (Ex-Officio)	
Jimmy.	Knight	✓
Harry	Lange (Vice Chair)	✓
W. Jeff	Lukken	✓
Joe	Maltese	✓
Aaron	McWhorter	✓
Gordon	Moss	✓
Kenneth	Penuel	✓
Denney	Rogers	✓
Walter F.	Rosso	
Randy	Simpkins	
Jimmy	Thompson (Alternate)	✓
Robert	Watkins	✗
Don A.	Watson (Alternate)	✓
Matt	Windom (Chair)	✓
Jim R.	Woods	✓
Brad	Yates	
Robie M.	York	

*Alternate attended*





## MIDDLE CHATTAHOOCHEE WATER COUNCIL

Meeting #6, June 22, 2010  
Public Sign-In

Name	Organization
Tony Black	GSWCC
Andy Lucas	GA Farm Bureau
Bryan Tolar	GA Agribusiness Council
David Wono	JTA
Patti Lanford	GADNR-Fisheries
Dick Timmerberg	West Point Lake Coalition
John Asdon	GA Power
Ed Moor	City of West Point
Chad Knudsen	GA Power
Lance Renfrow	RVRC
Joe Krewer	DCA
Will Garwood	DCA
Peter Luzzo	Fast Bowling
George Lee	GA Gov OFFICE
William Kent	Columbus Water Works
Lindsay Averett	Oglethorpe Power
Keith Hill	GPC
Laura Hartt	Upper Chattahoochee Riverkeeper
Bert Earley	Georgia Forestry Commission





## MIDDLE CHATTAHOOCHEE WATER COUNCIL

Meeting #6, June 22, 2010

### Local Elected Official Comment Sign-In

**Name**


### Public Comment Sign-In

**Name**




**DRAFT - Summary Input Data/ Input Assumptions  
ACF Resource Assessment – Future 2050 Scenarios**

Station	Station Type	Location	Planning Node	USACOE Action Zones: Max Conservation Storage/Conservation Lake Level (Low - High)/Flow Targets <sup>(1)</sup>	Future 2050		Desired State		Water Coalition	
					Flow (cfs) Instantaneous	Storage/ Lake Level Impact (Elevation)	Flow (cfs) Instantaneous	Lake Level Impact (Elevation)	Flow (cfs) 7 Day Average/ Daily Average	Lake Level Impact (Elevation)
Lake (Lake Lanier)	Dam	Buford Dam		1,087,600 ac-ft 1,035 – 1,071 ft NVGD		USACOE RIOP Action Zones				
River	Gage	Downstream of Buford Dam	Buford Dam		450 cfs <sup>(2)</sup>					
River	Gage	Atlanta	Atlanta	750 cfs at Peachtree Creek	750 at Peachtree Creek					
River	Gage	Whitesburg	Whitesburg						1,350 1,000	
Lake (West Point)	Dam	West Point Dam		306,127 ac-ft 620 – 635 ft NVGD		USACOE RIOP Action Zones				632 ft NVGD bottom of conservation pool; 635 – 641 ft NVGD induced storage for flood control
River	Gage	Downstream of West Point Dam	West Point Reservoir	675 cfs minimum release	675					
River	Gage	Columbus	Columbus		1,200 <sup>(3)</sup>				1,850 800	
Lake (WF George)	Dam	Walter F George Dam		244,400 ac-ft 184.5 – 190 ft NVGD		USACOE RIOP Action Zones				187 ft NVGD
River	Gage	Columbia (Farley)	Columbia						2,000	
Lake (Andrews)	Dam	Andrews		8,200 ac-ft Run of the river impoundment						
Lake (Seminole)	Dam	Woodruff Dam	Woodruff Dam	66,847 ac-ft Run of the river impoundment		100,000 ac-ft <sup>(4)</sup>				
River	Gage	Downstream of Woodruff Dam		RIOP minimum (4,500 – 5,000) <sup>(5)</sup>	RIOP minimum (4,500 – 5,000) <sup>(5)</sup>				5,000	

1. Conservation storage values from Federal Storage Reservoir Critical Yield Analysis Alabama-Coosa-Tallapoosa (ACT) and Apalachicola-Chattahoochee-Flint (ACF) River Basins (USACOE, February 2010)
2. 450 cfs is the minimum release that Buford Dam is physically capable of releasing. There is no at site flow requirement in the Corps IOP except 750 at Peachtree Creek.
3. The 1200 cfs flow target at Columbus is not mentioned in specific USACOE operation rules, but this number has historically been used in Corps Models as a minimum flow to protect the Columbus NPDES discharge.
4. Approximately 100,000 ac-ft at Woodruff used for storage as a modeling technique to make sure Lake Seminole is not empty while storage is still available in the upstream reservoirs.
5. Per the RIOP 4,500 cfs becomes the flow target when the storage left in all 3 reservoirs is below the total storage of Lake Lanier's zone 4. It is referred to as the Drought Zone in the RIOP.

## **MIDDLE CHATTAHOOCHEE WATER COUNCIL** **ADDRESSING WATER QUANTITY NEEDS AND REGIONAL GOALS**

Water quantity is an extremely important consideration to stakeholders in the Middle Chattahoochee region to meeting the vision and goals defined by the Water Council. The MCH Water Council will consider current and anticipated conditions and identify recommendations for management practices. Water quantity modeling for the state water plan consists of two main efforts; surface water availability and groundwater availability assessments. In addition, the instream water use requirements and shortfalls identified in current basin management have been considered.

### **6.1. Identifying Water Management Practices**

Existing water quantity practices are already in place that address water quantity in the region. These include:

- Surface water and groundwater withdrawals greater than 100,000 gallons per day on a monthly average basis are permitted by the state and new permits include conservation planning requirements

There are substantial uncertainties in planning to meet water quality goals. Some of these uncertainties are regulatory in nature, and others are site specific in nature. Recognizing that the Water Development and Conservation Plan needs to move forward in spite of the uncertainty that exists, the Council has considered some of these uncertainties in the development of the plan, including:

- Revision of the U.S. Army Corps of Engineers water control manual for the ACF basin is ongoing and anticipated to be complete in June 2012.

The Council fully intends that adaptive management be employed in future revisions to the Middle Chattahoochee WDCP to ensure that the water quality needs in the region are balanced with other competing needs.

Water quantity management practices in the Georgia Comprehensive State-wide Water Management Plan are categorized into water quantity and water quality areas which impact water resources management. These categories include the following:

- Water Demand Management Practices
- Water Return Management Practices
- Water Supply Management Practices

Water demand management practices include measures to conserve by reducing water use, water waste, and water loss. The goal of demand management practices is to maximize the efficiency and maximize the benefit from each gallon of water used. Several practices have been identified which could involve additional costs on local governments, industries, and individuals. These practices include:

- Support implementation of Tier 1 and 2 conservation activities

- Require all water providers to implement conservation oriented rate structures
- Encourage all water providers to implement education and outreach programs
- Encourage local providers to prepare drought contingency plans

Wastewater return management practices decrease regional consumptive water use by increasing the quantity of treated wastewater effluent returned to surface waters. These practices also include water reuse. Returns practices could involve additional costs to utilities providing central sewerage, industries, and individuals. These practices include:

- Encourage communities to decommission septic systems and connect to centralized treatment
- Eliminate further land application system discharges for major (greater than 1 mgd) facilities
- Encourage utility providers to determine potential opportunities and development of nonpotable reuse

Water supply management practices include those which would augment existing water supply and water quality needs. These practices include:

- Study the development of new surface water storage reservoirs
- Implement new surface water storage as necessary
- Encourage the use of farm ponds
- Study the development of additional regional groundwater use
- Encourage interconnection of regional supply systems

An additional category of water quantity management practices aimed at enhancing the regions ability to meet instream water uses is considered. These practices include:

- Advocate for modification to the current operation of the federal reservoirs in the ACF basin by the U.S. Army Corps of Engineers
  - Establish a new instream flow targets for protection of water quality past the Columbus node to maintain a daily average flow at or above 1,350 cubic feet per second
  - Prevent reservoir levels from dropping below critical levels to meet authorized recreational use in West Point Lake such that normal operation is maintained between 632.5 – 635 feet NVGD. Induced flood storage between elevation 635 – 641 feet NVGD will be utilized when needed
  - Modify the RIOP to allow the federal reservoir projects to recover more rapidly after drought conditions.
- Encourage the use of privately-owned storage in the ACF basin to meet the flow requirements below Woodruff Dam during drought periods
- Study the scientific justification for requirement that greater than 5,000 cubic feet per second flows be maintained below Woodruff Dam

- Study modeling scenarios in the ACF basin under extreme hydrologic conditions (i.e. 2009 data for extreme flood and 1920s data for extreme drought)
- Advocate for the U.S. Army Corps of Engineers to reconsider the uses and stated purposes for the all the Federal reservoirs to improve the balance and priorities for uses and stated purposes (i.e. hydropower, flood control, water supply, recreation, fish & wildlife habitat) and/or optimize the uses within the context of the Federal Operating Permit

## **6.2. Selected Water Management Practices for the MCH Region**

### 6.2.1. Near-term Water Management Practices

The MCH Water Council supports the following management practices to address water quantity of the resources in the region.

- Support implementation of Tier 1 and 2 conservation activities
- Require all water providers to implement conservation oriented rate structures
- Encourage all water providers to implement education and outreach programs
- Encourage local providers to prepare drought contingency plans
- Eliminate further land application system discharges for major (greater than 1 mgd) facilities
- Study the development of new surface water storage reservoirs
- Encourage the use of farm ponds
- Advocate for modification to the current operation of the federal reservoirs in the ACF basin by the U.S. Army Corps of Engineers
  - Establish a new instream flow targets for protection of water quality past the Columbus node to maintain a daily average flow at or above 1,350 cubic feet per second
  - Prevent reservoir levels from dropping below critical levels to meet authorized recreational use in West Point Lake such that normal operation is maintained between 632.5 – 635 feet NVGD. Induced flood storage between elevation 635 – 641 feet NVGD will be utilized when needed
  - Modify the RIOP to allow the federal reservoir projects to recover more rapidly after drought conditions.
- Study the scientific justification for requirement that greater than 5,000 cubic feet per second flows be maintained below Woodruff Dam
- Study modeling scenarios in the ACF basin under extreme hydrologic conditions (i.e. 2009 data for extreme flood and 1920s data for extreme drought)
- Advocate for the U.S. Army Corps of Engineers to reconsider the uses and stated purposes for the all the Federal reservoirs to improve the balance and priorities for uses and stated purposes (i.e. hydropower, flood control, water supply, recreation, fish & wildlife habitat) and/or optimize the uses within the context of the Federal Operating Permit

Implementation of these water management practices adopts conservation to continue to foster stewardship over the region's water resources. Recommendations for changes to the U.S. Army Corps of Engineers operation of the ACF basin reflect the council's goal to help resolve the issues pertaining to water resources management and competing interests. Desired changes in reservoir and instream flow requirements identified have been shown to be a viable alternative from a modeling perspective. Adaptive reservoir management practices should be further investigated to illustrate the advantages of this approach for the ACF basin.

#### 6.2.2. Long-term Water Management Practices

Long-term water management practices address supply augmentation and reliability and represent greater regional collaboration and permitting efforts.

- Implement new surface water storage as necessary
- Encourage interconnection of regional supply systems
- Advocate for changes to biological flows below Woodruff Dam based upon scientific justification study

#### 6.2.3. Interregional Implications of Selected Management Practices

The selected management practices all involve additional resources (time, effort, money). The costs of these programs should be shared equitably between the state, local jurisdictions, individuals, and industries. Recommended changes in operation of federal reservoirs require further interregional coordination and planning between the Middle Chattahoochee, Upper Flint, Lower Flint-Ochlockonee, and Metro North Georgia planning councils.

## **MIDDLE CHATTAHOOCHEE WATER COUNCIL** **ADDRESSING WATER QUALITY NEEDS AND REGIONAL GOALS**

Water quality is an extremely important consideration to stakeholders in the Middle Chattahoochee region to meeting the vision and goals defined by the Water Council. The MCH Water Council will consider current and anticipated conditions and identify recommendations for management practices. Water quality modeling for the state water plan consists of two main efforts; dissolved oxygen modeling using DOSAG to consider point source loadings to streams under critical low-flow, high temperature conditions, and watershed modeling to consider the combined effect of point and nonpoint sources, particularly for nutrients. In addition, the list of stream reaches designated as impaired and corresponding Total Maximum Daily Loads have been considered.

### **6.1. Identifying Water Management Practices**

Existing plans and practices are already in place that address water quality in the region. These include:

- Point discharges to surface water bodies are permitted by the state
- Land application system discharges are permitted by the state
- Impaired stream reaches that have been identified based on water quality monitoring have been identified. Total Maximum Daily Loads for associated parameters have been developed and plans have been developed to address the sources of impairment.
- Erosion and sediment control practices are regulated by the state or local governments
- Stream buffers required by the state
- Air permitting required by the state (for point sources)
- Pollution prevention efforts required by the state (such as emission controls, requirements for unleaded fuels)
- Land use permitting required by the state (such as for mining, landfills, etc)
- Wetlands disturbance permitting required by USACOE

In addition, much work has been done in the state on developing best management practices for various industries. These include:

- Manual for Erosion and Sediment Control in Georgia, Georgia Soil and Water Conservation Commission, 2000
- Best Management Practices for Georgia Agriculture, Georgia Soil and Water Conservation Commission, 2007
- Georgia's Best Management Practices for Forestry, Georgia Forestry Commission, 2009
- Georgia Better Back Road Field Manual, Georgia Resource Conservation & Development Council, Inc, May 2009
- Georgia Stormwater Management Manual, GA DNR/ARC, 2001

- Georgia's Best Management Practices for Mining, Georgia Mining Association et al, 2008
- Water Quality/Quantity Best Management Practices for Florida Container Nurseries, Florida Nursery, Growers, and Landscape Association (FNGLA), 2007

Even with the work that has been done in the state and the region, there remain significant data and information needs to provide for future refinement of management practices. These include:

- Additional water quality data for water bodies in the region
- Additional information on the implementation of best management practices for industries in the region
- Coordination with other councils, particularly the Upper Flint, Lower Flint-Ochlockonee, and Metro North Georgia

While a majority of water quality trends and implications are generally well understood, there are substantial uncertainties in planning to meet water quality goals. Some of these uncertainties are regulatory in nature, and others are site specific in nature. Recognizing that the Water Development and Conservation Plan needs to move forward in spite of the uncertainty that exists, the Council has considered some of these uncertainties in the development of the plan, including:

- Future Florida nutrient standards and resulting requirements for Georgia permittees
- Potential regulatory changes, such as revisions to the state dissolved oxygen standard

The Council fully intends that adaptive management be employed in future revisions to the Middle Chattahoochee WDCP to ensure that the water quality needs in the region are balanced with other competing needs.

## **6.2. Selected Water Management Practices for the MCH Region**

The MCH Water Council recognizes the need for continual improvement in water quality management practices, as well as the fact that some practices may require more information or significantly increased funding. For this reason, the MCH Water Council has identified near-term water management practices for implementation in this planning cycle, as well as long-term water management practices for consideration when the Regional Water Development and Conservation Plan (WDCP) is updated.

### **6.2.1. Near-term Water Management Practices**

The MCH Water Council supports the following management practices to address water quality of the resources in the region.

- Improved enforcement of existing permits
- Improved consistency of existing permitted discharge limits
- Improved enforcement of erosion and sediment control
- Improved land use planning at the local level with respect to water quality control, primarily with respect to stream buffers
- Eliminate additional land application system discharges for major (greater than 1 mgd) facilities
- Require adoption of the Georgia Stormwater Management manual by local ordinances for implementation throughout the region
- Creation of a conservation land program to increase stream buffers in perpetuity
- Improved water quality monitoring to provide the data for water quality improvements in the future (increased number of collection sites, increased monitoring frequency and parameters sampled)
- Increased implementation and improved documentation of best management practices throughout the region for all industries
- Continued coordination and cooperation with adjacent water councils

Implementation of these management practices reinforce the advances in water quality that have been experienced over the last few decades in Georgia. Some of these practices involve additional costs on local governments, industries, and individuals.

#### 6.2.2. Long-term Water Management Practices

Long-term, the MCH Water Council recommends continued implementation of the recommended near-term management practices plus the following additional practices.

- Reduction of permitted utilization of the assimilative capacity of our water resources by point discharges as treatment technologies improve
- Fair and equitable nutrient criteria for all areas (ie the MCH region should not be penalized for upstream nutrient loadings)
- Additional state regulation requiring stormwater utilities

Implementation of these management practices will involve additional costs for wastewater treatment improvements, and additional costs for individuals and industries that have properties that generate stormwater and/or other sources of nutrient contributions to water.

#### 6.2.3. Interregional Implications of Selected Management Practices

The selected management practices all involve additional resources (time, effort, money). The costs of these programs should be shared equitably between the state, local jurisdictions, individuals, and industries. All of the recommended management practices should result in water quality

improvements throughout the region, so no interregional implications (other than cost sharing) is anticipated.

### **6.3. Fiscal Implications**

The Middle Chattahoochee Water Council, recognizing the need for implementation of short-term water quality related management practices, advocates increased state funding for GA EPD to allow the implementation of increased enforcement of existing permitted activities, to increase water quality monitoring in the Chattahoochee River basin, and to improve the documentation of best management practice implementation. The Council also requests increased funding in the form of grants for water quality improvement purposes. In addition, the Middle Chattahoochee Water Council recommends state funding of a conservation land program to acquire conservation rights to property for stream buffers on a cost share basis with local communities.

The Middle Chattahoochee Water Council, recognizing the need for additional long-term water quality related management practices, advocates that additional funding needs be defined to support implementation of long-term practices when the Regional WDCP is updated.

# **Georgia Department of Natural Resources**

Environmental Protection Division, Watershed Protection Branch  
4220 International Parkway, Suite 101, Atlanta, Georgia 30354  
Linda MacGregor, P.E., Branch Chief  
404/675-6232  
FAX: 404/675-6247

August 16, 2010

## **DRAFT MEMORANDUM**

TO: Regional Councils

THROUGH: Regional Planning Contractors

FROM: Bennett Weinstein  
Project Manager, State Water Plan Implementation

RE: Available Funding for Implementation of Nonpoint Source Pollution Management Practices in the Recommended Regional Water Plans

---

This memo has been prepared to inform the Regional Water Planning Councils (Councils) of a funding opportunity to support the implementation of nonpoint source pollution management practices identified in the recommended Regional Water Development and Conservation Plans (Regional Water Plans). If a Council opts to take advantage of this voluntary opportunity, EPD will provide up to \$100,000 in non-competitive Section 319(h) funds to a specified funding recipient(s) in each Water Planning Region. EPD is making these funds available to encourage Council discussions about nonpoint source pollution impacts on water quality and to facilitate implementation of nonpoint source pollution management practices. These funds will be provided to a jurisdiction(s) identified by the associated Council to serve as recommended eligible funding recipient.

The information in this memo will guide the Councils (and their planning consultants) in the selection of an implementable nonpoint source pollution management project to be included in their recommended Regional Water Plan. Important eligibility and project selection criteria are provided below. If the Councils opt to take advantage of this funding opportunity EPD's Section 319(h) Grant Unit staff is available to support the Councils, ABCs, Liaisons and planning consultants in assisting the Councils in the development of these projects. Funds for these projects will be available by Fall 2011 and project recipients can expect to execute contracts and begin work by January 2012.

### **Eligibility Criteria**

In order to be eligible for this non-competitive funding, the nonpoint source pollution management implementation project identified in the Regional Water Plan and recommended by the Council to receive these funds must meet and follow all Section 319(h) funding requirements and guidelines as published in the 319(h) FY11 General Guidelines, in addition to the following criteria:

- The project must be included, or, at minimum, referenced in Sections 6, 7 and 8 in the Council's recommended Regional Water Plan. To allow for ease of review, approval and funding of the recommended project, the funding recipient identified by the Council must prepare a standard 319(h) application and work plan, prepared in accordance with 319(h) FY11 Grant Guidelines, to be included in the Regional Water Plan's supplemental materials;

- If the project is contained wholly within a single local jurisdiction in the Water Planning Region, the Council must identify the appropriate jurisdiction to serve as the funding recipient. If a project embraces multiple jurisdictions or is regional in nature, the Council must identify either the appropriate single jurisdiction or eligible regional entity (e.g. a Regional Commission, Georgia Soil and Water Conservation Commission, Georgia Forestry Commission, etc.) to serve as the funding recipient. Once the contract is executed, the funding recipient is permitted to select sub-contractors following the State's or that recipient's own federally approved procurement process;
- The funding recipient (and partners, if applicable) must demonstrate implementation commitment by providing a minimum of 40% in non-Federal matching funds or in-kind services for use in completion of the project;
- Project(s) and funding recipients recommended by the Council must adhere to appropriate Federal laws and requirements and may not use these funds to address any requirements of Federal permits or any related enforcement activities.

#### Project Selection Criteria

The nonpoint source pollution management implementation project (and funding recipient) recommended by the Council to receive these non-competitive funds must meet these criteria:

1. Project must address one or more of the following EPD priorities:
  - a. Stormwater Practices: Including, but not limited to, those practices that work with the landscape such as rain gardens, bio-swales, and constructed wetlands; or
  - b. Practices Designed to Remove Barriers to Low Impact Development: Including, but not limited to, preparation, adoption and/or revision of ordinances, and conducting active, intensive outreach to inform public and private stakeholders regarding available tools to promote the use of Low Impact Development practices; or
  - c. Practices Designed to Restore or Protect Impaired Streams: Including, but not limited to, establishing buffers beyond State minimum requirements, livestock exclusion, Level 1 and/or 2 stabilization, Rosgen stream restoration, and agricultural waste control; and
2. Project must implement practices to address waterbodies identified in the Assimilative Capacity Resource Assessments as having "Moderate," "Limited," or "None/Exceeded" Assimilative Capacity; and/or
3. Project must implement practices that work towards alleviating the criterion violated identified in the Section 303(d)/305(b) List of Waters; and/or
4. Project must implement practices identified in the nonpoint source management components of other existing relevant plans such as TMDL implementation plans, local Comprehensive Plans, or other watershed improvement or management plans (excluding plans associated with permit requirements). If the existing plan selected for implementation by the Council does not contain an actionable and fundable set of implementation actions, the Council must revise the existing plan, in accordance with EPD Guidance, in order to clarify and specify those actions the Council seeks to recommend for funding; and
5. Project must be designed to provide measures of project success and/or effectiveness such as estimates of load reductions achieved by the project, monitoring results showing improved water quality, data for use in Resource Assessment Models, ordinances passed, or other measures approved by EPD; and
6. Project must: a) have an implementation timeline no longer than 2 years, b) focus on HUC-10 or smaller watersheds if at all possible, and c) specifically identify the pollutant(s) to be addressed and the activities proposed to prevent, control and/or abate pollution.

# **Middle Chattahoochee Water Council Regional Water Development and Conservation Plan Table of Contents**

**EXECUTIVE SUMMARY** {Target = 5 pages; Current Page Count = N/A}

**1. INTRODUCTION** {Target = 3 pages; Current Page Count = 2}

**1.1. The Significance of Water Resources in Georgia**

**1.2. Statewide Priorities**

**1.3. State and Regional Water Planning Process**

**1.4. The Middle Chattahoochee Regional Vision and Goals**

**2. THE MIDDLE CHATAHOOCHEE WATER PLANNING REGION** {Target = 4 pages; Current Page Count = 9}

**2.1. Geography**

**2.2. Characteristics of Region**

**2.3. Local Policy Context**

2.3.1. Corps of Engineers Reservoir Operation

**3. WATER RESOURCES OF THE MIDDLE CHATTAHOOCHEE REGION**  
{Target = 5 pages; Current Page Count = 15}

**3.1. Water Withdrawal Uses in the Region**

3.1.1. Municipal

3.1.2. Industrial

3.1.3. Energy

3.1.4. Agriculture

**3.2. Instream Water Uses in the Region**

3.2.1. Hydropower

3.2.2. Flood Control

3.2.3. Navigation

3.2.4. Recreation

3.2.5. Sport Fishing

3.2.6. Boating

3.2.7. Wildlife

### **3.3. Resource Assessments**

- 3.3.1. Surface Water Availability
- 3.3.2. Groundwater Availability
- 3.3.3. Surface Water Quality (Assimilative Capacity)

### **3.4. Ecosystem Conditions**

- 3.4.1. 303(d) List and TMDLs
- 3.4.2. Wildlife and Fisheries Resources

## **4. FORECASTING FUTURE WATER RESOURCE NEEDS {Target = 6 pages; Current Page Count = 7}**

### **4.1. Municipal Forecasts**

- 4.1.1. Population Projections
- 4.1.2. Municipal Water Forecasts
- 4.1.3. Municipal Wastewater Forecasts

### **4.2. Industrial Forecasts**

- 4.2.1. Employment Projections
- 4.2.2. Industrial Water Forecasts
- 4.2.3. Industrial Wastewater Forecasts

### **4.3. Agricultural Forecasts**

### **4.4. Water for Thermoelectric Power Forecasts**

### **4.5. Total Water Demand Forecasts**

## **5. COMPARISON OF AVAILABLE WATER RESOURCE CAPACITIES AND FUTURE NEEDS {Target = 3 pages; Current Page Count = 6}**

### **5.1. Surface Water Availability Comparisons**

### **5.2. Groundwater Availability Comparisons**

### **5.3. Surface Water Quality Comparisons (Assimilative Capacity)**

## **6. ADDRESSING WATER NEEDS AND REGIONAL GOALS {6 pages}**

### **6.1. Identifying Water Management Practices**

- Existing Plans and Practices
- Selection of Management Practices and Evaluation Criteria
- Coordination Between Regions
- \* Challenges and uncertainties in water planning

## **6.2. Selected Water Management Practices for the Middle Chattahoochee Region**

- 6.2.1. Near-term Water Management Practices
- 6.2.2. Long-term Water Management Practices
- 6.2.3. Interregional Implications of Selected Management Practices

## **6.3. Fiscal Implications**

## **7. IMPLEMENTING WATER MANAGEMENT PRACTICES {6 pages}**

Summary of the water management practices and long-term implementation within the water planning region.

### **7.1. Implementation Responsibility**

Overall summary of permittees and GEFA grant/loan recipients who are responsible for implementation of water management practices.

### **7.2. Implementation Schedules**

Summary of the water management practices, timeframe for implementation (near-term and long-term), areas of the water planning region where the water management practice applies, and the specific permittees responsible for implementation.

### **7.3. Alignment with Other Plans**

Overall comparison of consistencies and differences between the Regional Water Plan and other regional and local plans (14.7.c.x).

### **7.4. Recommendations to State**

Recommendations for actions by the State that support implementation of the Regional Water Plan (14.7.c.xiii). Recommendations may include those related to future data collection (14.7.c.xi).

## **8. MONITORING AND REPORTING PROGRESS {2 pages}**

### **8.1. Benchmarks (14.7.c.xii)**

### **8.2. TBD**

## **LIST OF FIGURES AND TABLES**

Figure 2-1: Middle Chattahoochee Water Planning Region

Figure 3-1: Water Supply by Source Type

Figure 3-2: Surface Water Use by Category

Figure 3-3: Groundwater Use by Category

Figure 3-4: Wastewater Treatment by Category

Figure 3-5: Available Assimilative Capacity Results from Dissolved Oxygen Assessment: Current Conditions

Figure 4-1: Municipal Water & Wastewater Forecast

Figure 4-2: Industrial Water and Wastewater Forecast

Figure 4-3: Water Users in 2010 and 2050

Figure 4-4: Total Water and Wastewater Forecasts

Figure 5-1: Surface Water Availability Comparison

Figure 5-2: Surface Water Quality (Assimilative Capacity) Comparison

Figure 5-3: 305(b)/303(d) Listed Streams

Table 2-1: Dams in the Apalachicola-Chattahoochee-Flint Basin

Table 2-2: Land Cover Changes 1985-2005

Table 3-1: Summary of Current Alabama Consumptive Demand

Table 3-2: Summary of Current Surface Water Availability Results – Chattahoochee River

Table 3-3: Summary of Surface Water Availability – Unregulated Nodes

Table 3-4: Groundwater Results

Table 4-1: Population Projections by County

Table 4-3: Agricultural Forecasts by County

### **LIST OF APPENDICES**

Appendix X: Municipal and Industrial Forecasting Technical Memorandum

Appendix X: 303(d) Listed Streams in the Middle Chattahoochee Region