

To: Middle Chattahoochee Water Planning Council

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

cc: Tim Cash, Assistant Branch Chief, GA EPD

Subject: Meeting Summary: Council Meeting 9 on February 24, 2011

The council meeting was held on February 24, 2011 in Pine Mountain at Callaway Gardens. The list of attendees is attached. In addition to these minutes, 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. Windom welcomed members and thanked everyone for attending. Council member Harry Lange provided the invocation. Next, Windom allowed members of the public to introduce themselves. The public sign-in sheet is included as an attachment.

Council member Jeff Lukken noted that the City of LaGrange has hired Mike Criddle to replace Joe Maltese, who has retired. Jeff noted that Mike Criddle was attending CM9 as Joe's proxy. Matt Windom asked that the meeting summary recognize the Council's appreciation of the time and effort that Council member Joe Maltese dedicated to the Council's work.

Matt Windom reviewed the following timeline and milestones for the Council.

February 2011	Council Meeting 9
March/April 2011	Council Meeting 10
May 2, 2011	Recommended Plan to GA EPD
May-July 2011	Public Notice of Draft Plan
August 2011	Final Production of Adopted WDCP
September 30, 2011	GA EPD Approves MCH Regional WDCP

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Matt Windom asked Harry Lange to give an update on the ACF Councils Joint Meeting on January 27, 2011. Harry said it was a very positive meeting and thinks that the Middle Chattahoochee council members established some common concerns with the Upper Flint and Lower Flint-Ochlockonee council members. Jim Hawkins discussed the agreed upon discussion topics from the meeting which included the following:

1. Need for Storage: All three councils are in agreement about the need for increased storage in the ACF, through new storage or better utilization of existing storage.
2. Flow Contributions at Woodruff Dam/5000 cfs Flow Target: To meet the 5000 cfs flow target at Woodruff, additional storage will be needed in the system. The group also discussed the basis for the 5000 cfs flow target and what role the needs of Plant Scholz (below Woodruff Dam) played in setting the target
3. Interconnectivity of Water Systems: The language regarding interbasin transfers that initially concerned Upper Flint council members was eliminated by the Middle Chattahoochee Council in the updated draft of the Middle Chattahoochee plan.
4. Competing Water Uses: Several members of the Upper Flint and Lower Flint-Ochlockonee Councils have expressed concern about the emphasis on recreation needs in the Middle Chattahoochee plan.
5. Dr. Georgakakos' modeling work: It was noted that the Georgakakos model run analyzed by the Middle Chattahoochee Council did not change model conditions on the Flint.
6. Model Assumptions: Members of the Upper Flint and Lower Flint-Ochlockonee Councils explained how the model assumptions about withdrawals for upstream reservoirs are not based on actual conditions and overestimate the gap at Bainbridge.
7. Endangered Species Act concerns: The group did not discuss these in detail, but Endangered Species Act concerns remain an important issue for the Lower Flint-Ochlockonee Council, and members of that council noted that the ESA could overshadow the outcomes of the planning effort and other water management activities and limit future access to water in the region.
8. Water Quality: All noted that the information is now becoming available, and there is work to be done to address the water quality sections of the plans.

Council member Jeff Lukken said he thought new reservoir impoundments should be used only for water supply and not simply as a community amenity. Council member Aaron McWhorter said he was not sure if he would agree. McWhorter said he sees reservoir development more as political challenge; a new reservoir would have to serve multiple purposes. A council member commented he recently saw a proposal that showed a new reservoir planned that did exclude residential growth around the lake.

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McWhorter said there will be a shortage of water sometime in the future and that planning is looking into the future. McWhorter was concerned that the Council needed to look at the issue of the relative contribution of flow from the Flint and the Chattahoochee to achieve the minimum required flow of water in the Apalachicola. Lukken asked McWhorter what he would like to see from the Council. McWhorter responded he was not sure, but he did not feel that the Council had really gotten to the heart of the issues in the basin. Jim Hawkins commented that based on analysis of the modeling results, during extreme drought conditions the Flint basin actually contributes more flow than the Chattahoochee basin does to the Apalachicola flow below Lake Seminole. Lukken asked if the Council should recognize the Flint gap; Council member Steve Davis advised that the Council already did in the plan.

Davis said that deepening existing storage could that be a tool for the Council. Steve Simpson commented that Upper Flint has had a similar discussion.

Windom asked if there were any additional comments on the Council's last meeting summary. There were no comments. He noted the Council did not have the quorum and would have to vote officially on them at the next meeting.

The Council discussed council leadership; elections for Chair and Vice Chair need to be held for this calendar year. Council members discussed keeping the same council leadership, and options for having the elections in the absence of a quorum at the meeting. It was agreed that elections would be held at the next council meeting.

Draft WDCP Review

Jim Hawkins discussed proposed changes in Chapter 4, which included the following additional information on the Energy Task Force:

The Georgia EPD assembled an energy water use task force and worked with this task force to obtain input on energy water use forecasts developed on a statewide basis. The forecasts indicate that the estimated energy needs for the state will exceed existing and planned (through 2017) power production before the planning horizon of 2040; therefore, additional power production facilities are needed. Given appropriate transmission infrastructure improvements, these additional power needs could be met by producing energy anywhere in the state; therefore, while the amount of water needed to produce the forecast electrical needs was calculated, this water need was not geographically determined.

Jeff Lukken said there was committee consensus about using best management practices for cooling which included the following additions:

The Middle Chattahoochee Water Council recognizes that the region is projected to grow and that growth will put pressure on all of our state's resources, including water and electricity. Therefore, the Council encourages the use of best management practices for cooling and water use, recommends that energy providers should continue to work with EPD in pursuing the goals of Chapter 3, *Conserving Water Used for Electric Generation and Use of the State's Water Conservation and Implementation Plan*, and recommends that EPD review withdrawal and

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discharge permits for additional facilities in the region considering the limitations of the region's water resources to prevent exacerbation of instream water use impacts as discussed in Section 3 of this Water Development and Conservation Plan.

Lukken also said that considering the limits of the region's water resources and potential instream impacts, the council had recommended that EPD develop energy water use forecasting. However, the forecasting that was done did not identify geographically specific water needs. He said energy water use forecasting should account for greater cooling tower efficiencies, additional energy conservation measures, increased power production in the future, water quality, and other factors as appropriate.

Council member Robert Watkins noted that energy companies have been protective of their forecasting information past 2017. However, he noted there is sufficient water volume in the Chattahoochee to support another thermoelectric energy production plant.

Lukken disagreed that the Council should give up any water for another power plant. Lukken compared the percentage of power plants in the region with the number of councils in the state to support his viewpoint that the region had more than enough energy production to meet demands in the region. Watkins stated he was fine with how the Council decided this issue; however, he felt like he needed to make this point.

Chair Windom said he liked the wording currently in the draft plan, which says water needs for energy production, if proposed, needs to be evaluated further. Windom said the real question was the magnitude of the consumptive use of water associated with any new power facilities.

A council member asked about the Early Power Plant and asked if the reason they were sited there was because they could not get a permit in Florida.

Lukken noted that if their county got one more industry, they would likely have non-attainment issues for air quality. He noted that they did not want Atlanta problems here, nor was he in favor of producing power for areas outside the region. Watkins said there was one gas fired plant inside I-285 around Atlanta.

Council member Gordon Moss asked about the future of alternative energy sources. Council member Ken Penuel noted a new biomass plant proposed near an existing Georgia Pacific plant. Penuel suggested that the Council should not prevent people from doing innovative things.

Windom thanked the energy committee for its work. The Council adopted the committee recommendations by consensus.

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Rolling Hills RC&D

Windom introduced Cindy Haygood with the Rolling Hills Resource Conservation and Development Council. Matt Windom explained that EPD has asked the regional water councils to assist in the identification of 319 projects in their region that will assist in attaining the regional council's vision and goals. Windom said that the Rolling Hills RC&D has proposed a grant project for the Council's consideration.

Cindy Haygood described the work of the Rolling Hills RC&D and their efforts to implement best management practices since 2002 in different watersheds. She described the objectives of the proposed project are to promote efforts of the Middle Chattahoochee Water Planning Council to enhance water quality improvement in the 11 county Council area by correcting sources of watershed impairment. This effort will be done through implementation of corrective action and demonstration BMPs and educating the public regarding water quality and solutions to restore and protect waters in the area through presentations, BMP tours, and other outreach materials.

She said that the Rolling Hills RC&D plans to submit this project as a proposal to EPD's 319 grant program. While Windom said they did not they did not have quorum, he asked if any members had any problems with the Council supporting this effort. There were no objections to the Council supporting this grant proposal. Windom thanked Rolling Hills RC&D for the presentation and advised that he would send a letter of support on behalf of the Middle Chattahoochee Council.

Draft WDCP

Jim Hawkins explained that EPD would like the council to identify the top priority recommended Management Practices. Next, Jim reviewed a survey handout that listed all the management practices in the draft plan to assist in identifying the highest priority Management Practices. He asked Council members to pick the top five management practices.

Afterwards, Chair Windom asked if the Council Members wanted to discuss this effort. Windom thought it was challenging to narrow the management practices down to five. Windom discussed his own storage project to permit a reservoir in the Tallapoosa basin as a work in progress to address the gap. Matt advised that his top five were WS2, IU2, WC1, WW2, and WQ6. Other council members advised that IU1 and IU2 were top priorities in their opinion.

Council member Ken Penuel noted the Council was doing a lot for extreme conditions and wished that the updated draft of the Army Corps Water Control Manual would be available for consideration before the Council submitted their plan. Ken was also concerned about the impacts of management practices on rate structures. Windom noted that Carroll County changed their water rate structure to reduce consumption and so far

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consumption by residents is down 27%. Council member Steve Davis said while this type of reduction is good, he was concerned that during the next extreme weather event a similar reduction in demand may not be achieved.

Aaron McWhorter agreed and advised that an estimated 37,000 jobs were lost during the drought due to the consequences of required irrigation cutbacks. He advised he was in favor of conservation rates to reduce the need for wholesale use cutbacks.

Next, Council Member Gordon Moss explained more about the Water Quality practices. He suggested that more specifics about forestry, back roads, agriculture, and land development be added to the plan. He reviewed specific suggested language for the council. Chair Windom advised that his effort was appreciated and that these suggestions could be considered in the plan update.

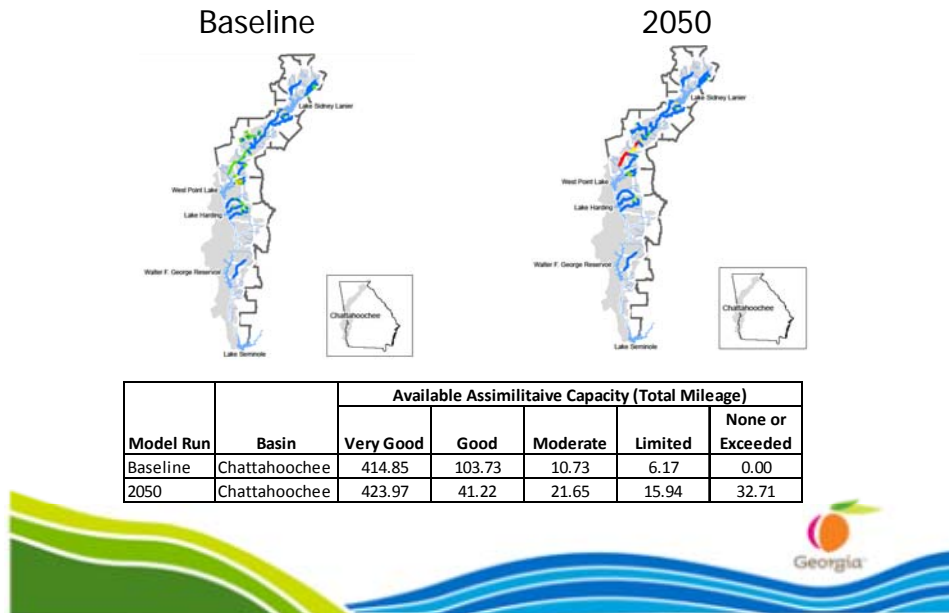
Next, Jim Hawkins discussed recommendation 6 in Chapter 7 in which the Council recommends that EPD develop means to increase storage in the basin. The Council discussed the inclusion of privately owned instream reservoirs for supplemental environmental storage and flow augmentation, and inclusion of private and municipal reservoirs for supplemental storage and supply. A council member noted that existing privately owned instream reservoirs only represent 3% of the system storage provided by the USACOE reservoirs on the Chattahoochee. Council member Ken Penuel suggested that it would be good to include the storage comparison as the reason why private reservoirs are not included. There were no further comments. The consensus of the council was to adopt the modified language in the current draft which eliminated the previous statement that private reservoir storage should be utilized. Chair Windom noted that he supported striking the private reservoir language from this recommendation.

Water Quality Modeling Update

Steve Simpson provided an update concerning the water quality modeling. Steve reminded the council that the surface water quality modeling is about modeling the assimilative capacity of the waterbodies. The assimilative capacity is the ability of the waterbodies to receive pollution without violating water quality standards.

Steve explained that the dissolved oxygen (DO) models are run at “critical conditions” (low flow, high temperature) with permitted discharges. He noted that the watershed models account for both wastewater discharges and storm water runoff from various land uses. Lake models look at the impacts of nutrients. Steve said that models in general identify “unacceptable impacts” as not meeting state standards for dissolved oxygen, nutrients, chlorophyll a, etc.

DOSag Model Results - Chattahoochee



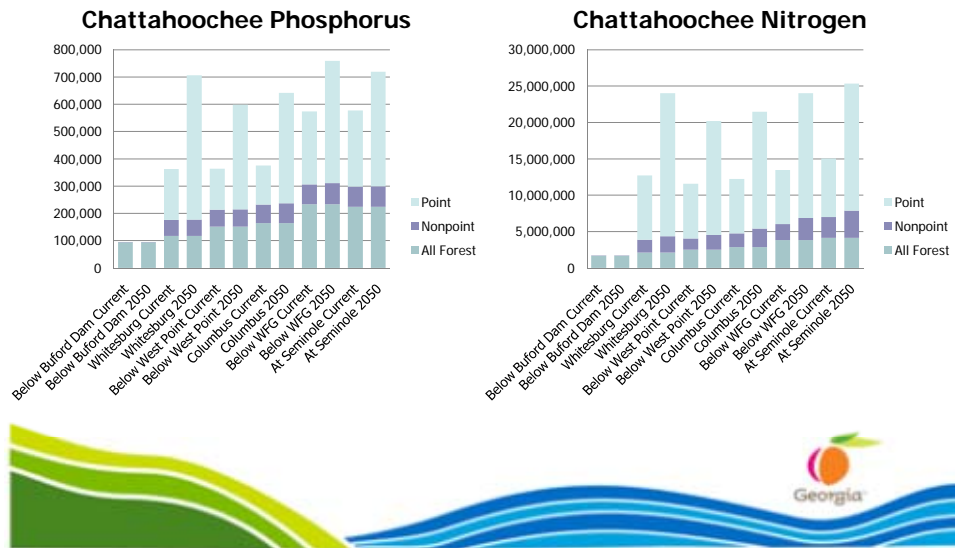
Steve reviewed the Lanier Watershed modeling and Lake Lanier water quality modeling results. Nutrients in the Lanier Watershed are currently primarily from nonpoint source contributions, although future increases are projected to be primarily from point sources. The Lake Lanier modeling showed that there are current exceedances of *Chlorophyll a* standards at certain locations in the lake, and future conditions are predicted to be very similar to current conditions.

Steve said the results from the modeling can be a bit overwhelming. There are many calculated results at over 50 summation points in the Chattahoochee basin. Steve advised that for this presentation, key locations would be highlighted, including:

- Below Buford Dam
- Whitesburg
- Below West Point
- Columbus
- Below Walter F. George
- Seminole

Steve discussed the following graphs which show the contributions from point and non-point sources in pounds per year. Nitrogen and phosphorus trends are somewhat similar.

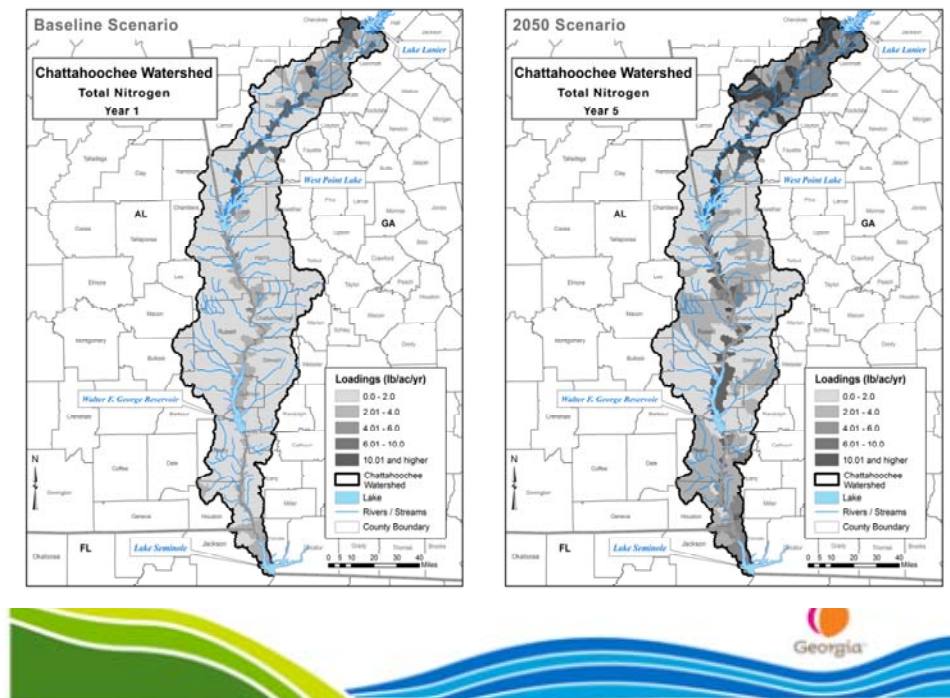
Chattahoochee Nutrients



Next, Steve showed selected nutrient modeling results on maps of the basin. For the Chattahoochee watershed, Steve advised that, in general, point sources currently contribute more nutrients than nonpoint sources. Future increases in nutrient loads will come from nonpoint contributions from changing land uses and significant increases in point source contributions.

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Steve then summarized the lake results. He noted nutrient modeling for each of the lakes are complex and that is why they are modeled in three dimensions. Steve reviewed West Point Lake modeling results and showed that while there were no *Chlorophyll a* exceedances under current conditions, exceedances at future conditions are predicted, and most of the phosphorous loading is point source related.

Steve reviewed Walter F. George Lake modeling results and noted that *Chlorophyll a* exceedances are projected under current and future conditions, current phosphorus load is primarily from nonpoint sources, and future phosphorus increases are projected from some nonpoint and significant point sources.

Steve explained that Seminole Lake also does not nutrient standards yet established. He explained that phosphorus loading to Lake Seminole is primarily from nonpoint sources and that future phosphorus increases in Seminole will be primarily point source related.

Steve summarized the proposed Florida nutrient standards and presented modeling results from the Seminole modeling as a comparison to the standards. Steve concluded the presentation with some potential Council considerations, including:

- Dissolved Oxygen
 - Increased flow will require increased treatment
- Lake and Watershed Modeling
 - Modeling indicates types of management practices that might be most effective in reducing nutrients

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- Relative contribution of point & nonpoint sources of nutrients
- Variability in results from year to year
- Comparison with existing water quality standards
- Future Considerations
 - Expanded data collection
 - Modeling tool improvements for future updates
 - Florida nutrient standards potential impacts

Steve Simpson said that the results and the council's recommendations related to the results would be discussed at the next water quality committee meeting. Council member Steve Davis noted that all nutrients are not bad, but there has to be a balance. Steve Davis asked how these existing lake standards were set. Steve Simpson advised that the specific standards development history would be a good question for EPD. Steve Simpson reminded the Council Members to keep in mind that these are new models which will improve.

Chair Windom asked why the limits varied for each of the lakes. Ken Penuel asked if nutrients in Seminole Lake affect Hydrilla. Steve Davis commented that he didn't think these models should be utilized as a tool until more data has been collected for calibration. Council members discussed how this supported the management practices and recommendations in the draft plan that requested the collection of additional data and the refinement of the modeling tools for the next plan update. Windom thanked Steve Simpson for summarizing this complex set of data.

Public comments

Morton Reed with Columbus Water Works discussed RES-SIM basin modeling software developed by the USACOE. He has reviewed this and explained that it could provide a common framework for understanding flow and level in the system.

Luke Crossen with GSWCC explained how the Commission works to address water quality through their Erosion and Sediment Control training and certification programs, their agricultural program to use 319 funds to install agricultural BMPs, partnering with Fish & Wildlife to do livestock exclusion (fencing) projects, and work to repair roads to support the Better Back Roads initiatives. Luke also explained the GSWCC role in responding to agricultural related complaints; there is no official protocol, but GSWCC works to investigate the issue, resolve it with the farmers involved, and if the complaint cannot be resolved, to refer the issue to GA EPD for resolution. Luke mentioned that Larry Dillard, a Middle Chattahoochee council member, is a GSWCC Commissioner from the Pine Mountain area.

Wrapup/Council Meeting 9 Evaluation

Jim Hawkins said the final meeting will be the week of April 11th. Steve Simpson will send out an electronic survey for Council members to set the exact date. The location

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will in the middle part of the Council region. Council members expressed a desire to have conference call-in facilities available to maximize member participation. Jim will send out an electronic survey to select a date for a Plan Review Committee meeting, which will likely be held in LaGrange prior to the next council meeting to continue plan development. All council members are invited to attend.

Jim will research whether votes can be made through email or if Council Members have to be at meetings to vote.

There were no additional comments. 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 – February 24, 2011

Council Members

Jimmy Bradley
Steve Davis
Gardiner Garrard
Harry Lange
Jeff Lukken
Aaron McWhorter
Gordon Moss
Ken Penuel

Denny Rogers
Jimmy Thompson
Robert Watkins
Don Watson
Matt Windom
Jim Woods
Robie York

Council Members Not In Attendance

Alan Bell
Paul Chappell
Larry Clark
Phillip Eidson
Thomas Ellis
Bill Gregory
Joe Griffith
Gerald Greene

Bill Gregory
Bill Heath
Jimmy Knight
Joe Maltese
Walter Rosso
Randy Simpkins
Brad Yates

Planning Consultants

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

Robert Osborne, B&V

Georgia EPD

Tim Cash, Assistant Branch Chief
Bill Morris

Georgia State Agencies

Patti Lanford, GA DNR – WRD
Fisheries

