Georgia's State Water Plan

Dear Council Members:

We are looking forward to seeing you in our next Middle Ocmulgee Water Planning Council meeting on November 16, 2009. The meeting will be held at the Flint Energies located at 98 Carl Vinson Parkway, Warner Robins, 31095.

Once again, we are writing to ask each of you to take time to review the attached draft agenda and the pre-meeting materials prior to the meeting. As we continue the planning process for the future of water in our region, members of the Council will be asked to make decisions that are crucial to promoting economic vitality and maintaining quality of life in the Middle Ocmulgee region. We cannot stress enough how important it is for each member of the council to come prepared to the meetings, so informed decisions can be made to move this process forward.

Please also visit our Regional Water Planning Council Website (http://www.middleocmulgee.org/). Information will be updated periodically by our Planning Contractor to include meeting materials and summaries from previous meetings.

Thank you again for your continued interest and involvement in this important process. Please let us know if you have any questions or concerns.

Elmo Richardson, Chair
Middle Ocmulgee Regional Water Planning Council

Ben Copeland, Vice-Chair
Middle Ocmulgee Regional Water Planning Council

Georgia's State Water Plan

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Middle Ocmulgee Regional Council Meeting 4

Pre-Meeting Materials

OTHER IMPORTANT INFORMATION:

Meeting Location: **Flint Energies**
98 Carl Vinson Parkway
Warner Robins, 31095

Georgia's State Water Plan

Council Meeting
Draft Agenda

Middle Ocmulgee Water Planning Council

Meeting 4 Objectives: **November 16, 2009**

1) Complete public involvement plan
2) Continue resource assessment discussions
3) Continue municipal and industrial water demand forecasting
4) Continue management practices training

8:30–9:00 a.m.	Registration
9:00–9:15	Welcome and Introductions *EPD Update (Kevin Farrell)* *Summary of CM3/Council Evaluation and Comments (Elmo Richardson)*
9:15–9:45	Demand Forecast Update *Municipal Ad-Hoc Meeting/Current Use Summary (David Ashley)* *Preliminary Industrial Demand Forecast (Tai-Yi Su)* *Agricultural Demand Forecast Update (Ben Copeland Jr. or Tony Bass?)* *Energy Forecast Update (David Ashley)*
9:45–10:15	Special Presentation by Georgia Power *(Speaker)*
10:15–10:30	Break
10:30–11:30	Resource Assessment Presentations *Surface Water Availability (Dr. Wei Zeng)* *Groundwater Availability (Dr. Jim Kennedy)*
11:30–12:00	Public Involvement Plan *Finalizing Public Involvement Plan / Implementation Strategies (Charlotte Weber)*
12:00–1:00	Lunch
1:00–2:00	Management Practices *Review CM3/ Regional Examples and Challenges (any speaker from the Council?)* *Potential Evaluation Criteria/Ranking System (David Ashley)*
2:00–2:30	Joint Meeting Planning and Council Sub-committees *(Elmo and/or David)*
2:30–2:45	Preparation of Draft Plan/Table of Contents *(David Ashley)*
2:45–3:15	Elected Official and Public Comments *(Charlotte Weber)*
3:15–3:30	Wrap Up/Council Meeting 4 Evaluation/Next Meeting

Georgia's State Water Plan

Municipal Water and Wastewater Forecast
Council Meeting 4 Pre-Meeting Information
Middle Ocmulgee Regional Water Planning Council

As provided in the regional planning guidance, forecasts of future water and wastewater demand are being developed for each water planning region for four major water use categories; municipal, industrial, agricultural, and energy. The sum of the forecasts for each water use category yields the total demand projection for the water planning region. These forecasts are a vital input to the State Water Planning process, because they determine the future demands against which resources will be compared and management practices will be designed to meet.

On September 28th and October 2nd 2009, the Georgia Environmental Protection Division (EPD) held two Ad-Hoc meetings with representatives from the regional councils to review municipal water data that have been gathered to date. The goal of this effort was to collect input from municipal water and wastewater experts to ensure that the preliminary forecasts reflect the best available relevant information and data. This Ad-Hoc Group has been tasked with providing input on region-specific water-use related factors (base year, transient populations, self supplied water users) and wastewater-related factors (return rate, septic tanks).

Meeting summaries from the two Ad Hoc group meetings are attached to this document.

The following representatives from the Middle Ocmulgee Regional Water Council attended the Ad Hoc Group meeting in Perry, Georgia on September 28, 2009:

- Mark Wyzalek, Macon Water Authority
- Marianne Golmitz, City of Warner Robins

The following individuals have agreed to review methodology and post-meeting documents sent out by EPD following the meeting:

- Marcie Seleb, Butts County Water and Sewer Authority
- Hal Newberry, Council member
- Greg Popham, City of Forsyth

Because of the delay in receipt of revised population projections, preliminary municipal water and wastewater forecasts will not be available by Council Meeting 4. Ad Hoc group members representing our Council and water providers in the region will have additional opportunities to provide comments and suggestions. EPD will consider these comments and suggestions in preparing the preliminary forecasts before Council Meeting 5.

Georgia Comprehensive Statewide Water Management Plan
Regional Water Planning

Municipal Water and Wastewater Forecasting Meeting #1
Meeting Notes

Meeting Date: September 28, 2009 10:00 AM
Location: Columbus Water Works Service Center, Columbus
1420 54th Street
Columbus, GA 31907
Attendees: See list

1) Introductions

Nap Caldwell opened the meeting with introductions. Nap Caldwell introduced himself and Glen Behrend representing EPD. Planning Contractors working with EPD included Brian Skeens (CH2M Hill), David Ashley (JJG), Steve Simpson (B-V), Brian Keel (CDM), and Pam Burnett (AECOM). He thanked William Kent and the Columbus Water Works organization for providing the meeting facility.

Nap noted that the sign-in sheet will be used by EPD for sending meeting notes and information to the meeting attendees.

The focus of this meeting was to discuss the municipal water and wastewater demand forecasting methodology that will be used by the Regional Planning Councils. EPD wishes to obtain feedback from this group, as representatives from the municipal sector.

2) Water Planning Process

Nap did a quick recap of the state water planning process with emphasis on the gap analysis (resource needs vs. resource capability) and management practices to meet future demands.

He began with an overview of the state water planning process, by describing the legislation that created 25-person regional water planning councils and set the process for developing regional Water Development and Conservation Plans. The plans will include strategies (current and long-term) for managing water resources in a sustainable way. The planning process involves estimating future demands in the region, evaluating current capability of water resources, and where demands exceed resource capabilities (known as a "gap"), selecting management to meet demands.

Forecasted water and wastewater demands are being developed for 4 modules: agricultural, industrial, thermoelectric, and municipal. These four modules will comprise the total for the region. Today's meeting focused on municipal demands. The meeting attendees have specific knowledge and insights that EPD would like to incorporate in the forecasts.

Nap asked the committee to listen to a brief presentation about the municipal water and wastewater forecasting methodology, and provide feedback about the methodology and any specific local information that may be missing or needed.

3) Municipal Forecasting Methodology and Discussion

Brian Skeens (CH2MHill) gave a 15 minute presentation about the municipal forecasting methodology. The presentation slides are attached for reference. This information has been presented to the planning councils.

Following Brian's presentation, Nap opened the floor for comments and questions.

1. The 1990 census may not be confidently relied upon for septic tank information because of the poor quality of the available information. For example, some communities have lost population and septic tanks may no longer be in use, much less any added. (*this is the type of specific local information that we are seeking)*
2. Given the importance of this planning and the long-term outlook addresses, the process seems rushed with not enough time to gather input. (*the work is driven by the legislated deadline of January 2011, and all interim steps back up from there. In addition to the opportunity to provide comments prior to the forecasts being produced, this group will be provided an opportunity to view the results prior to the Councils. There will also be a public comment process where the forecasts will be available on the website for review.*)
3. What will be the level of disaggregation of the forecasts? (*by County, and rolled up to the planning region. Forecasts of demands on particular aquifers and watersheds will also be provided.*)
4. Concerned that the projections will become the basis for allocations, and the process is rushing too quickly to be deliberate and thoughtful. (*the plans will be used to guide permitting but are not the basis for allocations*)
5. Are demands being compared to unimpeded flow of streams? (*depending upon the gaps and management strategies, councils can consider stream controls as a management strategy)*
6. Does "sustainable" mean that there is consideration for mussels and sturgeon? (*yes)*
7. Did the Metropolitan North Georgia Water Planning District use a similar forecasting methodology? (*yes)*
8. Concerned that the proliferation of stormwater retention/farm ponds could change the hydrology of surface and groundwater systems, and may not be captured in the resource models. *(good point, and will pass this along to the resource modeling team)*
9. Developing communities will likely experience an increase in per capita use rates. For developing areas like Carroll County, per capita use may increase as public water is provided vs. self supplied by wells. *(please pass along any data or reports that support this observation)*
10. In opposition to the comment above, another participant believes that per capita use has peaked, and the conservation will reduce use in the future. Rates and accurate metering will help to inform and reduce water use. *(again, let's look for reports that could support this observation)*
11. Water use in prisons due to indoor conservation may not decline as it is an element of prison safety/security. (*another excellent local specific that we need to know about)*

12. Utilities want to sell as much water as they can to cover sunken capital costs, and feel the tension to keep rates as low as possible. *(agreed, and understood)*
13. There is lost economic opportunity by constructing facility capacity, then restricting the ability to sell he water. But that doesn't mean that efficiency isn't needed in places. (*agree)*
14. Current information provided to EPD for other purposes (e.g. Carroll County 404 permit application data) should be used for the forecasting. *(please provide anything you think will help improve the forecasts)*
15. Need to assume that water and wastewater use parameters will change over time, with changes in conservation, costs, rates, and growth. *(good point)*
16. How was per capita use (by county) derived – what data was used? (*USGS data was used for county-level existing per capita use)*
17. What was decided about the comments received regarding the OPB/Vinson Institute population forecasts? (*More than 400 comments were received and projections are being revised. These will become the official state projections for all state agency purposes.)*
18. What is meant by "light" and "heavy" industry? (*"light" is used for industries that are not major water users. "Heavy" industrial uses are addressed separately)*
19. Inflow and infiltration rates will vary greatly by local conditions, especially soil type. For example, Jesup area soils are very sandy and I/I could be close to 40%. (*good point. Please provide input for areas that are vastly different from 20%)*
20. Rather than referring to the website for information, it would be helpful to have the information requested on the Metro Water District provided to this committee. (*okay, provide in email as an attachment)*
21. When will the Metro Water District planning cycle align with the State water planning cycle? (*the Metro plans were just updated, and will align with the next 5 year update in 2013)*
22. Will the state plans include potential legislation for conversion from septic to sewers? (*absolutely not)*
23. How is the information about self-supplied and septic use considered in the forecasting? (*this information is used in determining how much is needed from public systems, and how much is returned directly to streams as treated wastewater)*
24. How will the local governments weigh in on the decisions about future allocations and management? If allocations are to be used efficiently, the local governments must be able to pay for the infrastructure. *(Tom Gehl of the Georgia Municipal Association has expressed this concern to Dr. Couch, and they will meet to discuss in the near future)*
25. Why are County-level allocations used rather than service delivery areas? How do allocations fit into comprehensive plans? *(County level projections are the beginning, not the end. They will be distributed by basins/aquifers)*
26. Did self-supplied large institutions get included in the population and demand forecasts? (*yes)*
27. There is a large agricultural center-pivot system at a prison in Reidsville…how would

this facility's water needs be forecasted? *(the agricultural component is included in the agricultural forecasts. The prison population would be addressed in the institutional demands)*

28. Should we stick with a non-drought year such as 2005 to get a more "normal" baseline? (*please provide and specific information you have, and your suggestion for how the baseline may be adjusted)*
29. Will customers in other states, such as Alabama, be included in the projected needs? (*they have not been included)*
30. Has a statewide average been derived for per capita use? *(not yet, the intention is to provide regional forecasts)*
31. How will transient populations (students, migrant workers, work force from another jurisdiction or state) be factored into the projected needs? *(please provide specific comments about this for your geographic area)*
32. Early versions of water use data provided by USGS had some errors, such as missing the water used through system interconnections. (*we are aware of the early errors, and are making adjustments. Please provide specific local input.)*
33. The City of Zebulon/Pike County has a high per capita figure. It may be related to commuters from surrounding areas who enter the City for work/school. *(The USGS report was consulted and it was found that the City of Griffin/Spalding County accounts for 4.34 MGD of the Pike County usage.)*
34. How will use by private/unpermitted non-drinking water shallow wells be accounted for? *(they are not accounted for at this time, but specific local information could be used to make adjustments)*
35. Most county Community Health Departments have good data for septic tank installations for at least the last 5 years. (*good point, thank you. We will review this data.)*
36. Please provide a list of information that you would like this committee to provide, and the date you need to receive it. (*we will send this along as follow-up to this meeting)*
37. When will the projected demands be compared to the available water resources? (*spring of 2010)*
38. Does receipt of the forecasts numbers indicate an "approval" of the forecasts for EPD? *(no)*

4) Meeting Conclusion

Nap concluded by thanking the committee for their participation on short notice, and will send meeting notes, and collect comments through October 9th. A teleconference and/or meeting will be held with this committee after results are available.

The meeting adjourned at noon.

Georgia Comprehensive Statewide Water Management Plan
Regional Water Planning

Municipal Water and Wastewater Forecasting Meeting #2

Meeting Date: October 2, 2009
Location: Phinizy Swamp Nature Center, Augusta
1858 Lock and Dam Road
Augusta, GA 30906
Attendees: See list

1) Introductions

Nap Caldwell opened the meeting with introductions. Nap Caldwell introduced himself and Glen Behrend representing EPD. Planning Contractors working with EPD included Brian Skeens (CH2M Hill), Robert Osborne (Black & Veatch), Bill Martello (JJG), Katherine Zitsch (CDM) and Stephanie Gardner (AECOM). He thanked Susan Nicholson and the Phinizy Swamp Nature Center for providing the meeting facility.

Nap noted that the sign-in sheet will be used by EPD for sending meeting notes and information to the meeting attendees.

The focus of this meeting was to discuss the municipal water and wastewater demand forecasting methodology that will be used by the Regional Planning Councils. EPD wishes to obtain feedback from this group, as representatives from the municipal sector.

2) Water Planning Process

Nap did a quick recap of the state water planning process with emphasis on the gap analysis (resource needs vs. resource capability) and management practices to meet future demands.

He began with an overview of the state water planning process, by describing the legislation that created 25-person regional water planning councils and set the process for developing regional Water Development and Conservation Plans. The plans will include strategies (current and long-term) for managing water resources in a sustainable way. The planning process involves estimating future demands in the region, evaluating current capability of water resources, and where demands exceed resource capabilities (known as a "gap"), selecting management to close the gap.

Forecasted water and wastewater demands are being developed for 4 modules: agricultural, industrial, thermoelectric, and municipal. These four modules will comprise the total for the region. Today's meeting focused on municipal demands. The meeting attendees have specific knowledge and insights that EPD would like to incorporate in the forecasts.

Nap asked the committee to listen to a brief presentation about the municipal water and wastewater forecasting methodology, and provide feedback about the methodology and any specific local information that may be missing or needed. The work is driven by the target date of January 31, 2011 for submission of draft regional water plans to EPD, and all interim steps back up from there. In addition to the opportunity to provide comments prior to the draft

forecasts being produced, this group will be provided an opportunity to view the draft results prior to the Councils meeting in mid-November, 2009. There will also be a public comment process where the forecasts will be available on the website for review.

3) Municipal Forecasting Methodology and Discussion

Brian Skeens (CH2MHill) gave a 15 minute presentation about the municipal forecasting methodology. The presentation slides are attached for reference. This information has been presented to the planning councils.

Following Brian's presentation, Nap opened the floor for comments and questions; questions were entertained by Brian and Nap.

1. The Governor's new water task force meets for the first time next week. How many here have been invited to participate? How does this fit in with the state water plan or will these be competing plans? (*EPD had no knowledge of the task force, but comments from the floor indicated that there is likely already a chair and co-chair for the new task force. It was believed Council chairs were invited and the new water task force seems to be a contingency planning exercise intended to develop water supply options that could be implemented if things go bad in the litigation process and negotiations)*
2. Should the base year be a 5- or 10-year average, using the driest year to show the true gap in a gap analysis? (*we want to develop demand forecasts based upon an average year of water demand, but can look at 2005 water use and see how much variation in the 5-year range, can use larger number if appropriate. Water demand in drought years can sometimes be suppressed by virtue of implementation of water use restrictions, and can therefore present a skewed picture of 'real' demand.*)
3. Concern that will have skewed results going forward if rolling into one per capita number (commercial and industrial into residential). Perhaps look at residential per capita number separately from commercial/industrial? Or use data from per capita reports? (*valid point, not feasible at this point for separate per capita numbers based on data available. Data in per capita reports have been collected for a few years, may be drought skewed. Please forward per capita reports or other data; these can be used to compare for reasonableness/in the right range*)
4. Why are we afraid to use a drought skewed year? May be hurting ourselves in those drought years by not planning for it. Shouldn't we plan for the worst case and use the best data available? (*usually worst case is correct, although we have seen different kinds of drought, i.e. the outdoor water use ban resulting in water use numbers being lower rather than higher, and in some instances per capita numbers lower*)
5. Concern with the 2005 population numbers and data provided on handout (Bryan, Chatham, Clarke, Columbia, Glynn, Jackson, Madison, Montgomery, Stephens). (*will use data from withdrawal records. USGS data derived from EPD files and reports, can look at EPD files and compare)*
6. Where does USGS get the numbers shown in today's handout (capture those served in unincorporated areas or retail service to outside counties)? (*USGS numbers come from several sources including EPD, surveys of large municipal systems, U.S. Census data. Can/will review numbers and adjust as needed)*

7. Concern that per capita numbers do not include military members (those deployed are not counted in Bryan or Chatham counties for instance, but counted somewhere else). When they return, will have a demand for water the counties will need to provide. Similar situation in Glynn with federal law enforcement training facility (approximately 60,000 students/year student population). (*will look into issues, please contact planning contractors or submit comments to EPD)*
8. How do we bridge the gap between the state plan and our own individual community plans? *(the regional process will refine demand numbers with updated numbers, there will be opportunities to fix differences as the regional water planning process is intended to be iterative. These plans are designed to understand how we can best manage our resources, and are not designed to manage and plan for individual community systems.)*
9. Are you using the 2010 census? *(no, not available at this time, will incorporate in the next planning iteration starting 2013, building on a better base over time)*
10. Why use bad numbers? *(we don't want to use bad numbers, will have to go back and make corrections if there are known bad assumptions/info)*
11. May be able to determine transient population (i.e. knowing number of hotel rooms, occupancy rates, etc.) instead of using embedded number. (*most transient water use is already captured in 2005 numbers, is it reasonable to separate this transient water use if it's already captured in the per capita numbers? Maybe not for base year, but when applying projections/factors, can use data available to validate. Unless there is a known change in the transient population expected in the future, we will keep them included in the current numbers.)*
12. Seems like 2005 may be an unusual year. Divisions have deployed every year since 2001 and per capita seems artificially low. Perhaps adjust numbers or look over 10 years of data and pick peak year for each system. *(there is a difference in planning for infrastructure where you look at peak, and what we are doing – determining over a typical year/dry year the amount of water needed and resources available. We plan to look at individual counties and special conditions, aware of the military bases, transient populations, etc.)*
13. Keeping transient populations separate so entities can keep track? (*yes, all adjustments will be documented to understand why adjustments were made)*
14. What adjustments have already been made to the per capita use numbers? *(those on the handout highlighted in a lighter gray have already been adjusted)*
15. What is public water supply? The public water supply number for Chatham County seems low. Does this include self-supplied and public-supplied industrial? *(Rather than municipal and all industrial lumped together, industrial water and wastewater projections for largest industrial water users in the state were removed from the municipal total and separately projected. Then, the municipal per capita use rates are determined.)*
16. Reports provided to EPD include usage to those big industries and population associated. Depending on how they were counted (i.e. one connection vs. 1,000 employees) affects the way they are on the monthly reports, skewing USGS numbers. (*understood)*
17. How are we capturing job use/labor markets in large employment areas crossing county

lines (i.e. I-85, SR-316 corridor)? (*If municipally supplied and in top 12 of all industrial users, we pull out and move to industrial forecasting. If not in top 12, demand will be already built into per capita. If there are changes in transient population (commuting employees) we can make adjustments.)*

18. How do you factor in economic development? (*we plan to have input from representatives from the big 12 industrial users and from the Governor's office of economic development to determine any other large industrial users not yet taken into account; we will also try to identify other emerging industrial users. Those industrial users not part of the "big 12" are included in the per capita water use. Water use growth rates are assumed to be proportional to population growth rates. Can revise if necessary in next planning cycle)*
19. Concern regarding industrial mixed with residential water use numbers – can be cast in stone over time or used for permit purposes. (*point of process is to make forecasts correct based on information/data from you. The State Water Plan adopted by the Legislature and Governor does not authorize EPD to use info/data from the regional water plans to make individual water and wastewater permitting decisions.)*
20. Why not use planning info for permitting purposes? (EPD is *charged with managing the state's water resources, not managing the demands of individual water users. We need to know the sustainable capacities of the resources and your demands, the individuals/regions will then figure out how to bring the two in balance, and what role demand management will play in that balancing.)*
21. When will we receive forms/guidelines for input? Will we be able to add items as appropriate? (*forms can be sent to you later today or Monday morning. Forms are in excel spreadsheet, you can add input, add attachments or can send comments in any form by Friday, October 9th. Once a draft has been produced based on your input, we will check in again with you before it goes to the Councils)*
22. Is there concern/drive to contact other counties not represented (for example, the Coosa North Georgia Council has 6 representatives for 19 counties)? Or is it our responsibility to reach out to them? (*yes, we need you to help us by reaching out to counties especially if numbers seem off. Planning contractors are also reaching out to those counties. We have asked Council chairs to identify members and non-members that have knowledge of historical/local information. There will be a list of water planning point of contacts available and all counties and cities will have an opportunity to interact after the first draft)*
23. Are we taking into consideration potential conversion of privately owned systems to municipal? (*the existing mix between self- supplied and municipally- supplied in the base year will be carried to the future based on a selected scenario for the future. We can look at scenarios and make adjustments if needed, as well as make changes in the next planning period)*
24. At what point does consumptive use get factored? *(similar question brought up on Monday regarding indoor/outdoor use and septic. In determining demands placed on multiple sources, need to consider how much water is coming out/going back and where it is going back. This will come through in the process of comparing water withdrawals and returns with capabilities, not in this forecasting module, but later in the planning process)*

25. How do you plan to give the numbers to the Council? *(the handout contains preliminary numbers, adjustments may be made, based on your input. Will show forecasts of county-wide water and wastewater projections, where those waters are coming from and where they are being returned to – big picture river basin planning. For municipal, numbers given by County, does not include industrial which is forecasted on a regional basis)*

26. Are you handling CSO communities separately? If so, how does that process work? (*yes, the planning contractor working with your Council will be contacting you directly to understand how wastewater flows need to be calculated)*

27. The projections include some industrial water use – what if one of our biggest customers (about 1/3 of our revenue) withdraws from groundwater and uses our water? We need to know who these people are and account for them. *(they should be involved with the industrial group input. We also may need to make appropriate adjustments to the municipal forecasts.)*

28. How do we put the needs/desires in the demands so we don't under project for those counties not represented? Should it be what do we really want to have available to us to provide for future development? (*we depend on population projections from OPB and the Governor's office to reflect the kind of economic growth we expect to see. If there are issues, Councils can begin discussions and may consider a safety factor on the municipal side to address)*

29. Will the plans developed by the planning councils ultimately be approved by EPD, and do the planning councils have the flexibility to make adjustments? (*EPD will approve the regional water plans. These forecasts and safety factors need to be credible not only to get through EPD, but because the planning will be implemented locally, drawing upon the resources (finances) of the people who live in the region)*

30. Seems like it would be worthwhile to work another meeting to validate information before it is presented to the Councils. *(we do plan to meet with you multiple times after the draft is presented. We may or may not be able to plan another meeting before the Councils due to time constraints. Information will not be etched in stone, there will be at least a 2 month period after the Council meeting before anything is considered final. Information at council meeting 4 will be presented as preliminary draft)*

31. Does EPD have any concern if the representatives from these meetings hold additional meetings amongst their own Council or request info from their planning contractors? *(we don't intend to manage the interactions between the people here, looking to build level of comfort with the methodology as experts get more info)*

32. Will we get a copy of the draft prior to when it is presented to the Councils? When will that be? (*yes, we will send you a copy of the draft for review. The first Council meeting is scheduled for November 10th. We will need to send a package to the council members to review in advance of this meeting. We plan to provide preliminary results to this Municipal Ad Hoc group in late October)*

33. Are you planning on rolling all cities together into the County? Montgomery County shows 88 gpcd per capita water consumption. The City of Mount Vernon consists of about 40% of the population in the county, with the remaining 60% in the other 5 cities. Ours is 160 gal per capita per day, which means the other 5 cities are 24 gal per day – concern for lumping all cities in the county. *(good point, will have to look at specifics.*

Don't let the form restrict how you comment)

4) Meeting Conclusion

Nap concluded by thanking the committee for their participation, and will send meeting notes, and collect comments through October 9th. A teleconference and/or meeting will be held with this committee after the next round of regional planning council meetings.

The meeting adjourned at noon.

Georgia's State Water Plan

Industrial Water and Wastewater Forecast
Council Meeting 4 Pre-Meeting Information

As provided in the regional planning guidance, forecasts of future water and wastewater demand are being developed for each water planning region for four major water use categories: municipal, industrial, agricultural, and energy. The sum of the forecast for each water use category yields the total demand projection for the water planning region. These forecasts are a vital input to the State Water Planning process, because they determine the future demands against which resources will be compared and management practices will be designed to meet.

In June of 2009 representatives of EPD and each of the Planning Contractors convened to plan and coordinate the development of the industrial water and wastewater forecasting methodologies. This Industrial Workgroup will assist our Council in developing a forecast for the largest water using industries in our planning region. Industrial forecasts are based on employment projections that are being prepared by the Carl Vinson Institute of Government.

In addition to the Industrial Workgroup mentioned above, an Industrial Expert group was formed to provide input to the methodology for forecasting industrial water and wastewater for each region. This group met on August 18, 2009 to discuss industrial water use factors and methodologies to be included in the industrial forecasts. This group consists of the following members:

- Amanda Shailendra, Georgia Dept. of Economic Development
- Gary Canter, Vulcan Materials Co.
- Gary Downey, Bekaert Rome
- Gregory Jones, Mohawk Industries, Inc.
- Jay Flesher, Hybrid Corp.
- Jeff Carroll, Perdue Farms, Inc.
- Joel Lipsitch, John Deere Water Technologies
- John Cardosa, Georgia Construction Aggregate Association
- Jonathon Green, Pilgrim's Pride Corp.
- Lee Lemke, Georgia Mining Association & Georgia Industry Association
- Mark Munson, Georgia Industry Association
- Mike Giles, Georgia Poultry Federation
- Mike Pennington, Georgia Economic Development Association
- Richard "Rick" Hamilton, Weyerhaeuser
- Richard "Rick" Ramirez, Shaw Industries, Inc.
- Robert "Chip" Wilson, YKK AP America, Inc.
- Roy Bowen, Georgia Traditional Manufacturers Association
- Virginia "Ginny" Holton, Packaging Corporation of America
- Eddie Whorton, Shaw Industries
- Bryan Morton, Shaw Industries
- Cynthia Dunn, Shaw Industries

The preliminary industrial water and wastewater forecasts will be available by Council Meeting 4.

Georgia's State Water Plan

Energy Forecast
Council Meeting 4 Pre-Meeting Information

As provided in the regional planning guidance, forecasts of future water and wastewater demand are being developed for each water planning region for four major water use categories: municipal, industrial, agricultural, and energy. The sum of the forecast for each water use category yields the total demand projection for the water planning region. These forecasts are a vital input to the State Water Planning process, because they determine the future demands against which resources will be compared and management practices will be designed to meet.

An estimation of water needs for future energy production within the state requires:

1. Projecting the future energy needs of the state;

2. Projecting the sources of future energy needs (e.g., coal, gas, biofuels, nuclear, solar, wind, etc.) within the state;

3. Projecting the water requirements of the various energy sources and facility designs within the state (facility design, such as cooling towers system, affects volume of water used to produce energy); and

4. Determining the placement of future energy producing facilities within the state.

EPD is developing procedures to estimate the future water needs for energy generation within the state. Results of this forecast will be available at Council Meeting 5.

Georgia's State Water Plan

Vision and Goals
Council Meeting 4 Pre-Meeting Update

Throughout 2009, all 10 Regional Water Planning Councils have been working on formulating water resources based visions and goals for their region. It is important to note that our region's vision and goals will play a critical role in the selection and evaluation of management practices. Each Council will compare alternative management practices with their vision and goals to help select those that best meet the region's needs.

As we move into next year we will begin to select the management practices most appropriate for our region. Therefore, it is important that our Council adopt a vision and set of goals by Council Meeting 4. As we begin the process of selecting of management practices, joint meetings will be held to facilitate communication and coordination between Councils that share resources, and potentially gaps. As described in the regional planning guidance, the vision and goals may be revisited and revised, if needed, as we get more information about our region's water resources and resource use.

The Middle Ocmulgee Regional Water Council adopted the following **Vision Statement** at Council Meeting 3 (September 10th, 2009):

The Middle Ocmulgee Regional Water Council will work so that our water resource, both surface and subsurface, is of exceptional quality and quantity for the well being and prosperity of all that will follow. Our plan will consider the resource's natural integrity, wise conservation and prudent management for continuing economic development and enhanced quality of life for all the region's citizens.

The following draft Goals are provided to the Middle Ocmulgee Regional Water Council at Council Meeting 3 for further comments and refinements:

- Create a regional water conservation program with incentives for increased water efficiency that educates water users on the need for conservation.
    - Demand management/conservation/education

- Promote development patterns that limit the threats to the integrity of lakes, rivers, groundwater, and water recharge areas and that protect sensitive areas such as riparian corridors, floodplains, and wetlands.
    - Land conservation
    - Environmental planning
    - Smart growth/ LID

- Develop enhanced monitoring and enforcement to reduce nonpoint source pollution, keeping the Middle Ocmulgee water resources clean and healthy.
    - Monitoring

    - Enforcement
    - Pollution prevention
    - Stormwater programs
    - Development regulations
    - Illicit discharge and illegal connection programs

- Plan and manage the Middle Ocmulgee's water resources to maintain a healthy economy and preserve a high quality of life for the region.
    - Planning
    - New supplies

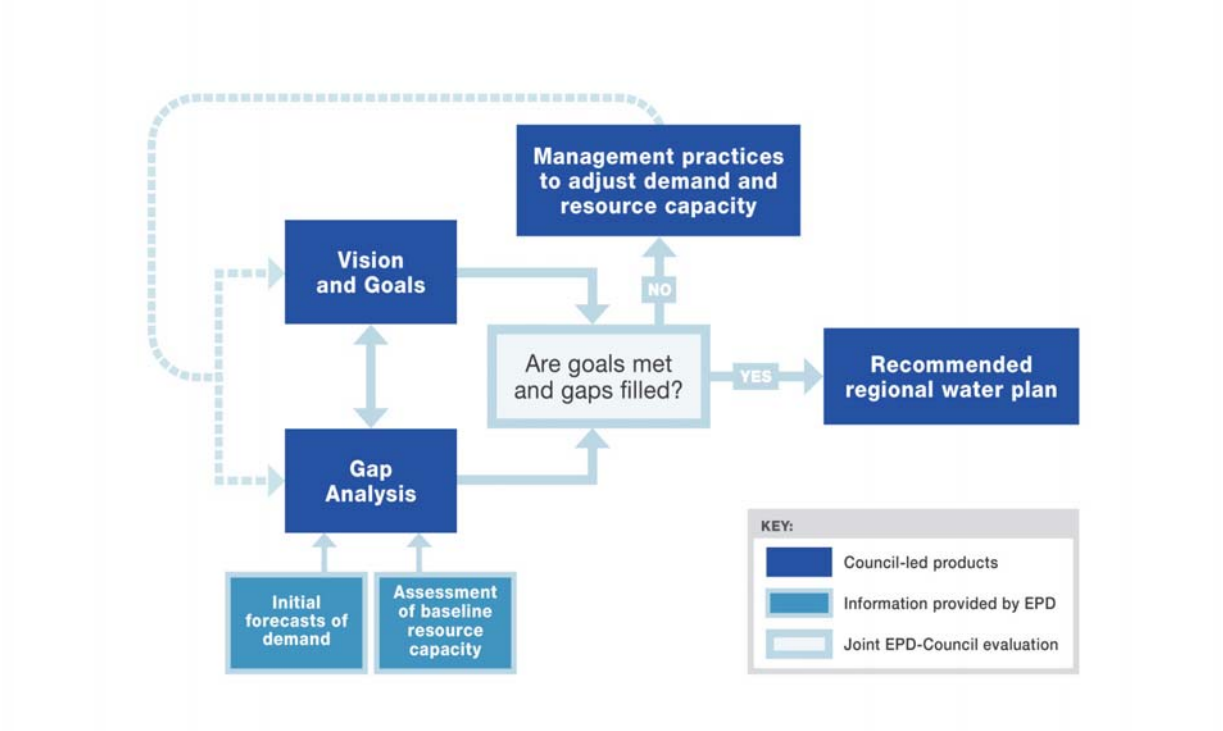
- Maximize existing water supply sources to the extent practicable to reduce potential environmental impacts from new sources.
    - Increase supply from existing sources

- Promote properly managed wastewater discharges in areas with available assimilative capacity while promoting beneficial reuse.
    - Siting of discharges/quality of discharges
    - Reuse

Georgia's State Water Plan

Management Practices
Council Meeting 4 Pre-Meeting Overview

Early in 2010, all 10 Councils will begin an iterative process to select water management practices to ensure there is sufficient water and assimilative capacity available to meet future needs. Water management practices include any activity that helps meet the regional vision and goals, or adjusts the baseline resource assessment or the forecasted water or wastewater demand. As shown in the figure below, the regional water planning councils will select water management practices that meet the regional goals and address any identified gaps between resource capacities and forecasted demands. Our Council is responsible for selecting water management practices and coordinating the selection process with neighboring water planning councils and local governments.



Management practices will be evaluated in the context of our region's vision and goals to ensure that future water resource management adequately addresses our Council's priorities. Our Council will consider water management practices that decrease forecasted demand for a water resource or practices that increase the capacity of a water resource.

Some examples of water supply management practices that we could choose to fill our gaps between forecasted demand and the capacity of a surface or groundwater source are:

- Conservation
- Storage reservoirs
- Desalination
- Interconnection of supply systems
- Additional groundwater development
- Reuse
- Return flow management
- Intrabasin transfers
- Interbasin transfers
- Aquifer storage and recovery

Some examples of water quality management practices that we could choose to fill our gaps between wastewater demand and the assimilative capacity of surface waters are:

- Advanced wastewater treatment technologies
- Watershed protection and monitoring
- Undisturbed vegetated river corridor buffers
- Manage impervious surfaces and green infrastructure planning
- Septic tank maintenance
- Erosion and sedimentation control

In Council Meeting 4 we will begin discussing region-specific management practices and how they can be used to fill gaps between available resources and forecasted demands.

Georgia's State Water Plan

Joint Meeting Tentative Schedules and Locations
Council Meeting 4 Pre-Meeting Update

Resource Assessments will be developed based on aquifer and watershed boundaries. An important next step in the Water Planning process is to begin coordinating with Regional Councils that share resources. A preliminary outline of the planned joint meetings and the Councils that share each resource is provided below with tentative dates and locations. If you have suggestions or input into the Joint Meeting Groupings please forward them to your Planning Contractor.

Coosa, Tallapoosa & Tennessee River Basins **Valley and Ridge, Blue Ridge, Piedmont Aquifers** **Monday, January 25, 2010** **Location: Carrollton or Dawson**	**Chattahoochee River Basin** **Piedmont Aquifer** **Monday, February 1, 2010** **Location: Columbus or Callaway Gardens**
Councils that share these resources:	*Councils that share these resources:*
• Coosa-North Georgia WPC	• Coosa-North Georgia WPC
• MNGWPD	• Middle Chattahoochee WPC
• Savannah-Upper Ogeechee WPC	• MNGWPD
• Middle Chattahoochee WPC	• Upper Flint WPC
Altamaha, Ocmulgee & Oconee River Basins **Eastern Coastal Plain Cretaceous, Piedmont Aquifers** **Friday, January 22, 2010** **Location: Macon**	**Flint & Ochlockonee River Basins** **Dougherty Plain, Claiborne Aquifers** **Friday, January 15, 2010** **Location: Americus**
Councils that share these resources:	*Councils that share these resources:*
• Altamaha WPC	• Lower Flint-Ochlockonee WPC
• Coastal Georgia WPC	• Middle Chattahoochee WPC
• Middle Ocmulgee WPC	• Middle Ocmulgee WPC
• MNGWPD	• MNGWPD
• Suwanee-Satilla WPC	• Upper Flint WPC
• Upper Flint WPC	
• Upper Oconee WPC	
• Counties of Savannah-Upper Ogeechee and Coastal WPC in the Cretaceous Aquifer	
Satilla, Suwanee & St. Mary's River Basins **Tift County Upper Floridan Aquifer** **Thursday, January 28, 2010** **Location: Waycross**	**Savannah & Ogeechee River Basins** **Brunswick Harbor Aquifer Model, Savannah CSSI Model, Eastern Coastal Plain Upper Floridan Aquifer** **Tuesday, January 19, 2010** **Location: Augusta**
Councils that share these resources:	*Councils that share these resources:*
• Altamaha WPC	• Altamaha WPC
• Lower Flint-Ochlockonee WPC	• Coastal Georgia WPC
• Coastal Georgia	• Savannah-Upper Ogeechee WPC
• Suwannee-Satilla WPC	• Upper Oconee WPC
• Southern Counties of the Upper Flint WPC in the Tift Co Floridan Aquifer	• Eastern Counties of Suwannee Satilla WPC in the Eastern Coastal Plain Upper Floridan

Altamaha, Ocmulgee and Oconee River Basins

Draft Agenda for Joint Meeting
(Meeting approximately 8 hours long, including breaks and lunch)

- Welcome and Charge to Meeting Participants (15-30 minutes)

- Resource Assessment Presentation and Discussion: Ground Water (~90 minutes)
  - Overview of Methodology and Assumptions
  - Results for Eastern Coastal Plain Cretaceous Aquifer and Piedmont Aquifer

- Resource Assessment Presentation and Discussion: Surface Water Quantity (~90 minutes)
  - Overview of Methodology and Assumptions
  - Results for Altamaha River Basin, Ocmulgee River Basin and Oconee River Basin

- Resource Assessment Presentation and Discussion: Surface Water Quality (90 -110 minutes)
  - Overview of Methodology and Assumptions
  - Results for Altamaha River Basin, Ocmulgee River Basin and Oconee River Basin

- Future steps and wrap up (20-45 minutes)

- Technical Discussions Open House (stations for each resource assessment) (60-120 minutes)

Flint and Ochlockonee River Basins

Draft Agenda for Joint Meeting
(Meeting approximately 8 hours long, including breaks and lunch)

- Welcome and Charge to Meeting Participants (15-30 minutes)

- Resource Assessment Presentation and Discussion: Ground Water (~90 minutes)
  - Overview of Methodology and Assumptions
  - Results for Dougherty Plain Aquifer and Claiborne Aquifer

- Resource Assessment Presentation and Discussion: Surface Water Quantity (~90 minutes)
  - Overview of Methodology and Assumptions
  - Results for Flint River Basin and Ochlockonee River Basin

- Resource Assessment Presentation and Discussion: Surface Water Quality (90 -110 minutes)
  - Overview of Methodology and Assumptions
  - Results for Flint River Basin and Ochlockonee River Basin

- Future steps and wrap up (20-45 minutes)

- Technical Discussions Open House (stations for each resource assessment) (60-120 minutes)

Public Involvement Plan

The Middle Ocmulgee water planning council will adopt a Public Involvement Plan based on the following outline. The Public Involvement Plan follows the outline provided by EPD for all regional water planning councils. It also provides for additional elements that may be adopted at the discretion of individual water planning councils.

The regional water planning councils, assisted by their regional planning contractor, will follow the adopted Public Involvement Plan to provide opportunities for meaningful input from key stakeholders, the members of local government advisory body, and the general public.

In the implementation of the Public Involvement Plan, the Chair of the Middle Ocmulgee water planning council will use discretion in permitting additional public comment or adjusting to adapt to specific meeting timelines and constraints, so long as the intent and expectations described below are followed.

Guiding principles

The Middle Ocmulgee regional water planning council recognizes the benefit and importance of providing opportunities for diverse input throughout the regional water planning process. The principles of the public input process are:

- Providing public outreach and involvement that is proactive and as wide reaching to all facets of the population as possible;
- Stakeholders and regional water planning council members will treat each other with respect and dignity;
- All participants will have an open mind and participate openly and honestly;
- The regional water planning process will continue with concurrent public comment throughout;
- EPD will provide public notice and take public comment on draft regional water plans after they are submitted;
- Stakeholder comments will be pertinent to the topic of the meeting at which they are expressed; and
- Input from the public, key stakeholders, and the members of the Local Government Advisory Body, and Non-Governmental Organizations will be considered and incorporated in regional water planning council work products.

Key stakeholders

The key stakeholders for the Middle Ocmulgee water planning region are identified below. All members of the public will have opportunities for input, even if not specifically identified in this section.

- Local government officials – includes one representative from each city and county within the water planning region
- Non-government Organizations
    - State Parks/Historic Sites
    - Georgia DNR – Wildlife/Recreation Division - Fisheries
    - Georgia Farm Bureau
    - Georgia Soil and Water Conservation Commission
    - County Extension Offices
    - Keep Georgia Beautiful
    - Georgia Adopt a Stream
    - Georgia Rivers Alive
- Neighboring regional water planning councils – water planning councils that share borders and/or water resources;
- Department of Community Affairs;
- Regional Commissions – agencies supporting local and regional comprehensive planning
    - Three Rivers Regional Commission
    - Middle Georgia Regional Commission
    - Northeast Georgia Regional Commission
- County and City Department chiefs/directors
- Water utilities
- Agriculture – includes water permit holders for agricultural applications
- Businesses – includes local businesses (this audience may be sub-divided into more specific categories)

- Industries – includes industrial water permit holders and municipally-supplied industrial facilities
- Forestry – includes owners of managed forest lands and the forest products industry
- Institutions/educational/schools – includes public and private schools as well as institutions
- Tourism – includes public and private organizations related to local travel and tourism
- Recreation – includes citizens and industry related to recreational water uses
- Environment – includes citizens, agencies, and groups focused on environmental protection
- Developers
- Design Professionals
- Land owners with property adjacent to or encompassing major streams, tributaries, or other water sources.
- Businesses or clubs with specific focus on water recreation or fishing
- Public – any citizen interested in the regional water planning process

Procedural criteria

Time will be provided at every Middle Ocmulgee water planning council meeting for input from stakeholders and the public. The procedural criteria are intended to ensure the public respects the regional water planning council's schedule constraints and the regional water planning council respects the public's opportunity to present relevant and different opinions. To facilitate a fair and efficient process, the Middle Ocmulgee water planning council has adopted the following procedures for public comment.

- All regional water planning council meetings will be open meetings
- Stakeholders will be provided an opportunity to provide comments pertinent to the topic of the meeting in which they are expressed
- Time (3 minutes per speaker) will be provided at the end of all Middle Ocmulgee regional water planning council meetings
- Provisions for written comments will be made at all regional water planning council meetings

The Chair of the regional water planning councils will use discretion to manage public comment under different circumstances in ways that enable the council to progress with its work and respect those who want to comment

Meeting announcements

All regional water planning council meetings will be open meetings, including at least a 24-hour notice of any meetings. The following provisions will be made for all planning council meetings to inform the public of upcoming meetings.

- Posted on the Middle Ocmulgee regional water planning council website http://www.middleocmulgee.org/ with a meeting agenda or summary of topics to be covered, meeting time, and meeting address
- Posted at the meeting location with a meeting agenda or summary of topics to be covered, meeting time, and meeting address
- Meeting summaries will be posted on the Middle Ocmulgee regional water planning council website
- Press releases with a summary of the major topics and results will be sent to the media after each council meeting.

Additional Outreach Opportunities

The Middle Ocmulgee Water Council promotes a proactive public involvement and outreach program. The following are recommended additional outreach techniques.

- Providing a means for the public to comment directly through the Middle Ocmulgee Regional Water Planning Council website http://www.middleocmulgee.org/;
- Create Public Service Announcements for local media both prior and after council meetings and milestones;
- Develop a blog for interactive discussions with the public for the Middle Ocmulgee Regional Water Planning Council Region;
- Create a social media site through facebook,com or other site to expand presence and to engage the public;
- Develop "Middle Ocmulgee Water Presentation Kits" including brief PowerPoint presentations and/or materials for Council Members and Partnering Agency members to present to smaller groups such as civic organizations, government departments, public gatherings, etc.;

Water planning council members, you may add to this list as deemed necessary. Other provisions:

Stakeholder and public comment opportunities

Specific opportunities during the regional water planning process for stakeholder and public input include but are not limited to the following.

- Meetings of the Middle Ocmulgee regional water planning council
- Middle Ocmulgee regional water planning council website (documents will be posted periodically with timeframes for comment and mechanisms for comment clearly stated)
- Letters may be mailed to EPD
- Emails to the regional water planning council and/or EPD
- EPD public notice period for the resource assessments
- EPD public notice period on the draft regional water plans

Local governments

Much of the implementation of the regional water plans is the responsibility of local governments; therefore, input will be sought from members of the local governments on the following specific topics.

- Regional population, economic and employment forecasts

- Fiscal implications of water management practices
- Draft regional water plan

The regional water planning council and members of local governments should identify proper communication pathways. The following actions are intended to coordinate activities of the local governments with the regional water planning councils.

- Members of local governments will be provided an opportunity at the end of the regional water planning council meetings to comment on the regional water planning process and items on the meeting agenda
- Members of local governments may provide written comments to the regional water planning council, as needed.

Non-government Organizations/Partnering Agencies

Although much of the implementation of the regional water plans is the responsibility of local governments; Partnering Agencies and other Non-government Organizations (NGOs) will be key in disseminating information and gathering input.

The Middle Ocmulgee Regional water planning council and members of NGOs and Partnering Agencies should identify proper communication pathways. The following actions are intended to coordinate activities of the NGOs and Partnering Agencies with the Middle Ocmulgee Water Planning Council.

- Members of NGOs and Partnering Agencies will be provided an opportunity at the end of the regional water planning council meetings to comment on the regional water planning process and items on the meeting agenda
- Members of NGOs and Partnering Agencies may provide written comments to the regional water planning council, as needed.
- Members of NGOs and Partnering Agencies may provide the link to the Middle Ocmulgee Water Planning Council website on their websites.

Water planning council members, you may add to this list as deemed necessary. Other provisions:

Other regional water planning councils

In order to plan and coordinate the use and protection of shared water resources, the regional water planning council will coordinate with adjacent and hydrologically-connected councils throughout the regional water planning process. EPD will convene some meetings to discuss shared water resources, such as on the current resource assessments. The regional water planning councils will use the following communication pathways to coordinate with adjacent regional water planning councils.

- Members of the regional water planning council will attend shared resource meetings and other joint meetings
- At the discretion of the Chair, an opportunity may be provided at regional water planning council meetings for announcements or progress reports from adjacent regional water planning councils

The Chair of the regional water planning councils may use their discretion to provide additional coordination with adjacent regional water planning councils, as deemed appropriate.

Review and consideration of public input

The objective of this process is to gather relevant and diverse input to improve the quality of the recommended regional water plans. Once public comments are received from the public and key stakeholders the regional water planning council with the assistance of the regional planning contractor will consider and address these comments. Written comments and web comments will be summarized and provided to the regional water planning council members. Verbal comments will be summarized and included in meeting summaries.