



B&V Project 164139  
B&V File C-1.2  
September 21, 2009

To: Lower Flint-Ochlockonee Water Planning Council

From: Kristin Rowles, GWPPC and Steve Simpson, Black & Veatch

cc: Tim Cash, Assistant Branch Chief, GA EPD

Subject: Meeting Summary: Council Meeting 3 on September 15, 2009

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The council meeting was held on September 15, 2009 at the McLendon Barn on member Jimmy Webb's farm in Leary, GA. The list of attendees is attached. In addition to these minutes, the presentations (slides) discussed in this meeting will be posted on the Lower Flint-Ochlockonee web portal (<http://www.flintochlockonee.org/>).

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

Council Chair Richard Royal stated that a quorum was present and the meeting should begin. Council member John Bridges gave an invocation. The Chairman noted the recent court ruling in the tri-state ACF litigation. The council watched a short video message from Governor Sonny Perdue about the ruling and the importance of the Council's work. Mr. Royal emphasized that the court ruling was important for Georgia and this council. He referred to the memo in the pre-meeting packet from Dr. Couch (EPD Director) summarizing the ruling and the state's response.

Chairman Royal referred to letters he sent to the Governor, Lieutenant Governor, and Speaker of the House regarding the Council's preference for the appointment of alternate members in the case of a vacancy. Copies of the letters are in the pre-meeting packet. Chairman Royal said that he had received a response from Lieutenant Governor Casey Cagle, who said that he would take the Council's preference on this matter into consideration in the event of a vacancy for which he would be making an appointment.

Chairman Royal recognized members of the public attending the meeting and asked them to introduce themselves. The Chairman asked the Council to review the agenda. He asked whether the agenda was acceptable to the Council. ***With no objections, the agenda was approved.*** The Chairman then asked the Council to approve the minutes of the last Council meeting. ***The meeting minutes were approved by a unanimous vote of the Council.***

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### **Agricultural Water Demand Forecasts**

Dr. Jim Hook presented the agricultural water demand forecasts to the Council. Dr. Hook is recently retired from the UGA National Environmentally Sound Production Agriculture Laboratory (NESPAL), and he is working under contract to GA EPD to prepare the agricultural water demand forecasts for the water planning process. The forecasts are available on the following website:  
<http://www.nespal.org/sirp/waterinfo/State/awd/agwaterdemand.htm> (There is also a link to this website from the Council's web portal: [www.flintochlockonee.org](http://www.flintochlockonee.org)) The agricultural water demand forecasting team included Dr. James E. Hook, Crop and Soil Sciences and NESPAL; Dr. Gerrit Hoogenboom and Dr. Joel Paz, Department of Biological and Agricultural Engineering; Dr. Jeffrey Mullen and Dr. John Bergstrom, Agricultural and Applied Economics; and Dr. Mark Risse, Biological and Agricultural Engineering.

The purpose of the agricultural water demand forecasting project was to prepare projections of irrigation water demand that will meet the needs of the agricultural sector for the Georgia economy during the first half of this century. The projections cover the row and orchard crops, as well as most vegetable and specialty crops, that cover more than 95% of Georgia's irrigated land. Dr. Hook said that the projections assume that there would be no changes in regulation and that resource and land availability would not be limiting. He noted that the approach to forecasting agricultural water demand, like all forecasting, looks to trends from the past and considers foreseeable changes. He also noted the benefits and problems in using computer models for forecasting.

The steps in forecasting agricultural water demand included the following:

1. Determine "baseline" irrigated acreage.
2. Identify withdrawal sources (groundwater, surface water, ponds).
3. Project major crop acres through 2050.
4. Calculate crop water needs for wet, normal, and dry years.
5. Project agricultural water withdrawals 2011-2050.

The effort started with baseline data on irrigated crops. Hook noted that the projections are based on existing, mapped irrigation locations because they expect that: (1) farmers will continue to use their investments in existing hardware; (2) farmers will expand irrigation near existing irrigated fields; (3) Existing irrigation areas have proven water supplies, suitable soils, and established farm support; and (4) all GA counties have room for irrigation growth. For water sources, the projections assume that 2008 sources will continue to be used in the same proportions (70% groundwater, 30% surface water).

The forecasters used projections from the USDA, from a Southeast Regional model, and from a GA model to determine which crops would be planted on the projected acres. In making the projections, the forecasters assumed economic conditions will reflect near-

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term effects of the current economic crisis followed by a transition back to steady economic gains. They relied on the Southeast regional and Georgia models to reflect Georgia farmers' preferences among crop choices. To combine the outputs of the models for crop acreages (USDA, SE, GA), the forecasters assumed that the projected acreage would best be projected as the average of the National, Southeast and Georgia models.

Next, the forecasters determined the water needs of the projected crop acreages. The water needs of crops grown in GA are known and can be modeled. The projections do not include any climate change scenarios. To project irrigation water needs, the forecasters assumed that irrigation replaces rainfall deficit in a given year, and they made projections for wet, average, and dry years based on weather patterns of the past 60 years.

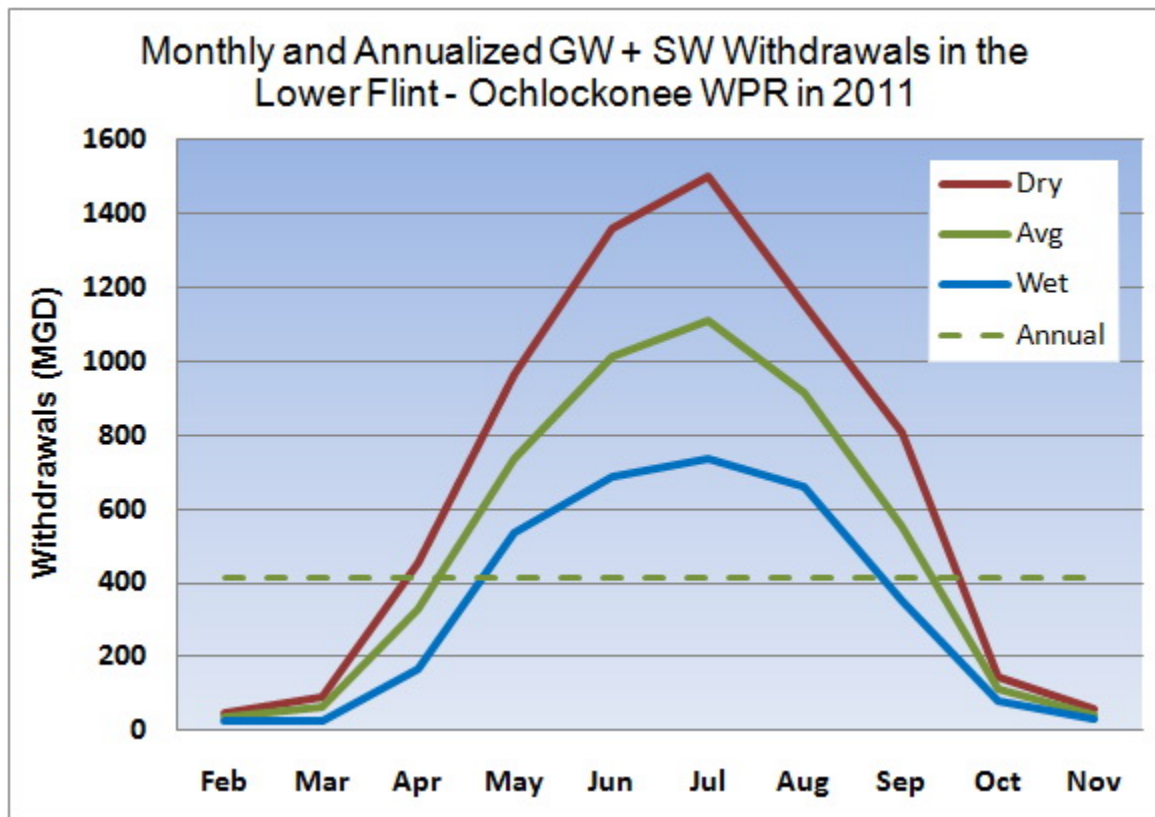
To pull the pieces together, the forecasters then made the following calculation: Projected irrigated area of each crop (acres) multiplied by the predicted monthly irrigation depth for the crop (inch) multiplied by the fraction of water from the water source. The results were then converted from acre-inches to million gallons per day (MGD).

Overall, the results show that there will be slight increases in Georgia's agricultural irrigation water use over the next 40 years. There is a wide range in the demand projections between wet and dry years. Across the state, irrigated crop acreage is expected to increase slowly at an average of about 0.5% per year.

The chart below shows the projects in the agricultural water demand for the Lower Flint-Ochlockonee region. Overall, the Lower Flint Ochlockonee region accounts for 48% of the state's agricultural irrigation water use (surface and groundwater). In the meeting, Dr. Hook reviewed some of the county and region level data from the Lower Flint-Ochlockonee region. While the overall projections are annualized, the website includes seasonal projections for water use. The chart below shows projected seasonal water use in the Lower Flint-Ochlockonee region for 2011.

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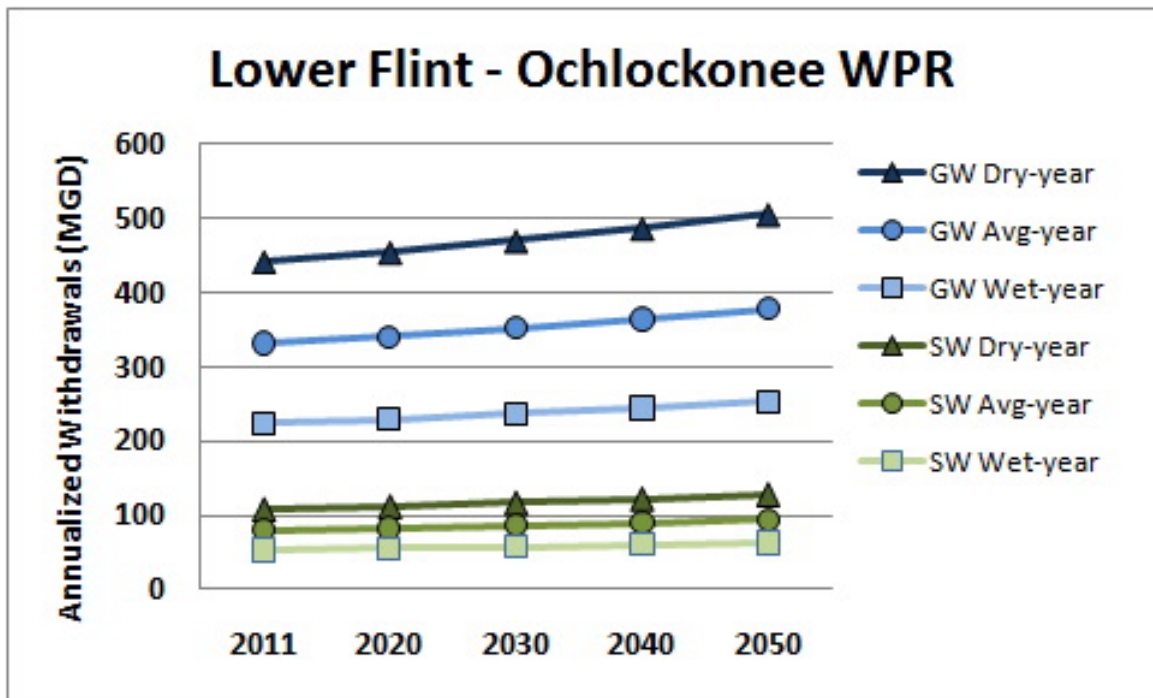


Dr. Hook noted that the following are not included in the agricultural water demand forecasts:

1. Commercial & Industrial Landscape irrigation
2. Home lawn & landscape irrigation
3. Golf courses and athletic fields (sod farms producing turf for retail sale are included)
4. Retail nurseries and greenhouses (large production nurseries and greenhouses are included)
5. Non-irrigation water use on farms including livestock water, processing of farm products and aquaculture

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The Council members had the following questions and comments for Dr. Hook:

Q: Did you consider the effects of conservation on future water demand?

A: We assumed continued use of existing technology. We cannot make projections based on technology that we do not yet know about. A lot of Georgia farms do have conservation technologies in place. Most systems installed since 1990 in Georgia have conservation technologies incorporated (e.g., low pressure systems, drop nozzles, end-gun shut-off).

Q: Did you consider more intensive use of land and increasing irrigation of pasture?

A: Pasture was not included. Multiple crop rotations are reflected based on existing patterns.

Q: Are golf courses included?

A: No (Even though many do have agriculture permits). Also, animal operations and aquaculture are not included. The projections just concern agricultural irrigation.  
 Comment: We might need to consider this, especially if Florida includes golf courses in their irrigation numbers.

Q: Did you include peaches and pecans?

A: Pecans are in there, and some peaches are included into the forecasts.

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Comment: I do not want the numbers to be too conservative. I do not want to lock in on low forecast numbers especially with the tri-state litigation on-going.

Comment: Our nursery operations are not reflected, and yet our use is significant (19 permits, 31 MGD). We are metered and permitted, and we participate in voluntary reporting.

A: Sod operations, nurseries, and greenhouses are included where we have records on them. We included metered and permitted sites. If there are gaps, please let us know. (The Chairman emphasized that the Council should help to identify and fill gaps.)

Q: How did the agricultural metering program get used in the forecasting?

A: We used it to find agricultural water users, but we could not use the data. There is not yet enough data from the program available, and the data that we do have is from an extreme drought year. As time goes by, we will be able to use meter data to replace model projections.

Q: In Perry, EPD mentioned analysis of correlation between meter data and the projections. It was reported that these were close, but in which direction did they differ?

A: The comparison was made between the projections and EPD's water use estimation tool (not the meter data). The tool came within 4% for surface water use and 12% for groundwater use.

Q: Was that high or low?

A: The direction of the comparison is not relevant. It was just a way to check our methodology.

Comment: We cannot afford to have projections that are too low. We might have to make-up for depletions on the Chattahoochee from the Flint.

Comment: We have a very high level of resource availability in our region. The groundwater is moving, and some enters Florida by going around or under the dam, rather than just over it.

Comment: Florida requires water use reports from farmers by month and by crop. They know exactly what is used. We need that here.

A: Florida has a much bigger budget than Georgia for these purposes. The smallest water management district in Florida has a larger budget than EPD's total budget. The Suwanee Water Management District in Florida does not yet have agricultural meters in place, so Georgia is ahead on that.

Cliff Lewis from EPD then noted that we cannot guarantee that we will get 100% of water use, but asked the Council to help fill in the gaps. He said that the forecasts will be continuously updated with new data. He noted that sub-threshold users (less than

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100,000 gallons per day) do not show up in the data. Mr. Lewis urged the council members to include any recommendations for improving the monitoring of water use in their regional water plan.

Dr. Hook said that they are in the process of breaking down the data further into smaller regions (aquifer, stream segments). This data should be available in October. Dr. Hook asked the Council members to let him know what should be added to the projections.

### **MOA Documents (Action Item)**

Kristin reminded the Council that at the last meeting they had adopted numerous changes that EPD had agreed to in the Operating Procedures and Rules for Meetings. At the last meeting, Chairman Royal appointed a subcommittee to address the outstanding issue relating to language on communications with the media. That subcommittee met, and Hal Haddock gave a brief report. Kristin reviewed the changes in the Rules for Meetings relating to the subcommittee's work:

- On page 1, at the bottom, the following sentence was deleted: [The \[EPD\] representative is also available to talk with members of the media.](#)
- On page 2, the following was added (Rule 3, #8): [The Chair may speak to the media on behalf of the Council without prior approval of EPD. If the Chair communicates with the media regarding Council business, the Chair will inform the EPD Director of such communication.](#) This language replaced the following language: [Media communications will be coordinated between the Chair and the EPD representative.](#)

Kristin said that the subcommittee's change was acceptable to EPD, and the documents were ready to be executed if the Council so wished. Chairman Royal advised that the changes were acceptable to him and asked if the Council was ready to adopt the documents. Jimmy Webb made a motion to adopt the documents, and the motion was seconded. ***The Council adopted the documents with no objections.*** Kristin asked that the Council members sign the MOA signature page at lunch time.

### **Visioning**

Kristin provided a review of the purpose of the vision statement and how it is being developed by the Council. She said that the regional planning guidance document says that the vision should describe the economic, population, environmental and water use conditions desired for the future. The vision statement will be used to develop action-oriented goals and to guide the selection of management practices. The vision statement can be revisited and revised as needed to be consistent with other parts of the regional plan as it is developed.

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Kristin said that the following was the vision statement that was used during the development of the Statewide Water Plan:

*Georgia manages water resources in a sustainable manner to support the state's economy, to protect public health and natural systems, and to enhance the quality of life for all citizens.*

The regional vision will tailor this vision statement to this region.

Kristin then reviewed the following Council's responses at Council Meeting #1 regarding trends, forces, and factors affecting water resources in the region:

- Substantial economic uncertainty
- Increasing use of water conservation practices
- Difficult to predict future demand for water based on recent trends
- Increasing attention and possible regulatory pressure related to water quality concerns
- Improved water resource information (but better information still needed)
- Significant constraints on water resource management as a result of political and natural factors

Next, Kristin referred the Council to the visioning assignment, which asked the following:

1. What do you want your rivers, lakes and groundwater to do for you and the citizens in your planning region?  
Consider the following:
  - Supporting the region's and state's economy
  - Protecting public health and natural systems
  - Enhancing the quality of life for all citizens
2. What do you want to protect?
3. What do you want to achieve with your water resources

Then, Kristin asked the Council members to help prepare a list of responses to these questions, based on their individual responses to the questions. This list could then be used by a subcommittee to draft a regional vision statement. The Council members offered the following responses:

- Human Consumption – Survival
- Water should be affordable
- Economic stability
- Importance of agricultural and industrial use



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- Agriculture provides national security benefits
- Recreational use of water
- Power Generation
- ACOE Management will affect LFO region
- Concern for aquatic life
- Endangered Species – concern over too much flow devoted to this purpose
- Information needs to support decision making
- Balance economic growth with resource availability
- Variability of resources within the region

At the conclusion of this discussion, the Chairman appointed the following Council members to a subcommittee to prepare a vision statement for the Council to consider: Representative Bob Hanner, Josh Herring, T.E. Moye, George McIntosh, and Rick Moss. Representative Hanner will serve as the chair of the subcommittee.

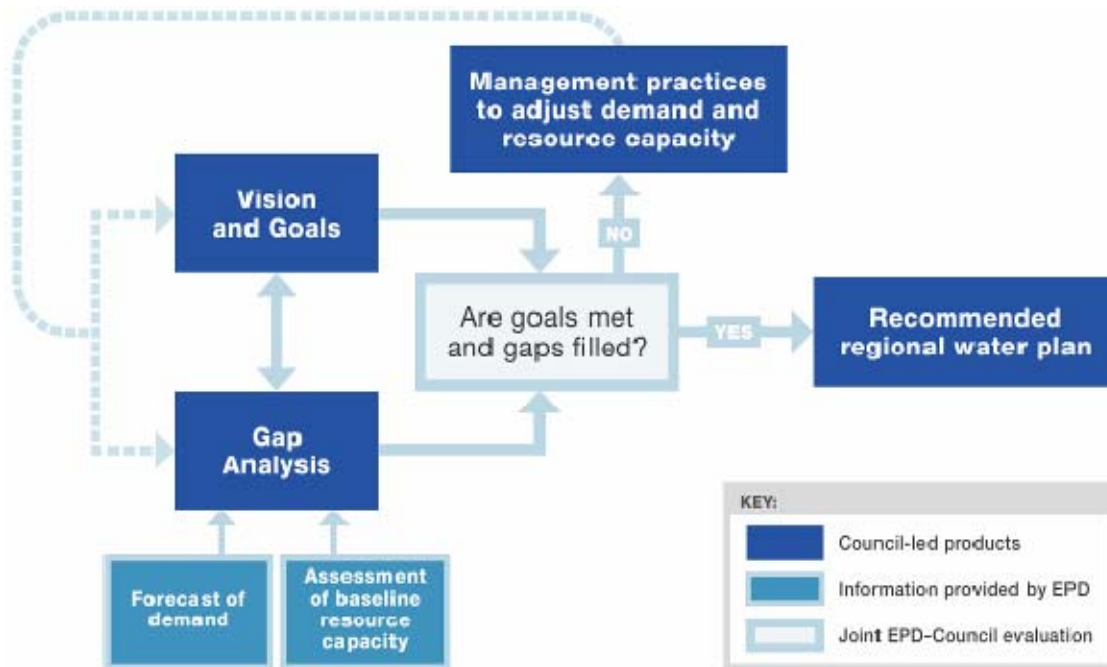
### **Planning Guidance**

Kristin explained that EPD has published a regional planning guidance for the Council. The guidance is available through the Council's web portal. The guidance will be an aid in preparing the various parts of the regional water plan, and it will also be used by EPD to evaluate the plan when considering final adoption. Kristin referred the members to the executive summary of the guidance as a good overview of the planning process and what will be expected of the Council and EPD.

Kristin presented the following graphic from the planning guidance as an over-arching illustration that describes the regional water planning process:

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Kristin presented the following from the planning guidance as a schedule for the pieces of the planning process described in the graphic above:

PRODUCTS	REGIONAL WATER PLANNING COUNCIL ACTIVITIES SCHEDULED
Regional vision and goals	April 2009 – September 2009
Assessment of baseline resource capacity	November 2009 – March 2010
Forecasts of demand	February 2009 – March 2010
Gap analysis (i.e. comparison of resources and demands to identify gaps)	January 2010 – October 2010
Water management practices to adjust demand and resource capacity	January 2010 – January 2011
Recommended regional water plan	January 2011 – June 2011

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Next, Kristin reviewed the responsibilities of the Council:

- Develop a recommended plan
- Submit to EPD by January 31, 2011
- Make revisions based on EPD and public comment and finalize recommended plan by June 30, 2011

The following are EPD responsibilities:

- Provide guidance and template to ensure completeness and consistency
- Provide public notice and 45-day comment period
- Review recommended plan for consistency with State Water Plan, rules, and guidance
- Adopt recommended plan if consistent with State Water Plan, rules, and guidance
- Use final adopted plan to guide agency decision making

Kristin encouraged the Council to review the planning guidance and to use it as a reference.

### **Public Involvement Plan**

Kristin referred the Council members to the draft Public Involvement Plan, which is included in the regional planning guidance. She reviewed each section of the public involvement plan to see if Council members had any suggestions for modifications to the document, which will be adopted at a future meeting. The Council members made the following comments and requests:

- Chairman Royal asked for a copy of the comments received on the population and employment forecasts for this region. (Kristin will send.)
- Council members suggested that biographical and contact information could be included on the Council website. They would also like to receive contact information for council members. (Kristin will contact member individually to see what information they would like to share on the website. She will send a council directory to council members.)
- Council members noted that it is important to contact both elected officials and staff people when reaching out to local governments.
- Howard Small asked for a brief summary of Council activities that could be shared with local governments that council members have contact with.
- Council members asked that a provision be added to the Public Involvement Plan to ensure follow-up when input is not being received.

Kristin asked members to provide her with press contacts that they would like to ensure receive council information.

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Kristin will modify the plan as requested and send out the information requested by Council members in this discussion. Chairman Royal said that the Council could take up the Public Involvement Plan for adoption at the next meeting.

### **Council Coordination**

Next, Kristin talked about coordination with other water planning councils and upcoming joint council meetings in January 2010. The councils have a strong interest in coordination among councils, as noted by the Chairs and Vice Chairs at a July leadership meeting with Dr. Couch. Furthermore, the Statewide Water Plan calls for council coordination.

Kristin said that for January 2010, a series of six joint council meetings are being planned. These meetings will be “resource-based” in that councils that share water resources will meet together. At the joint meetings in January meetings, the results of the resource assessments will be presented. Another round of joint council meetings will be held in April 2010. These will also be focused on the resource assessments.

Kristin showed two maps – one for surface watersheds and one for aquifers – which illustrates how council boundaries cross resource boundaries and which councils share which water resources. Then, she showed a draft set of groupings for the January Council meetings. The Lower Flint Ochlockonee will be a part of the following groupings:

- Flint & Ochlockonee River Basins/Dougherty Plain, Claiborne Aquifers
- Satilla, Suwanee & St. Mary’s River Basins/Tift County Upper Floridan Aquifer

Kristin said that at its next meeting, the Council might wish to discuss who will attend which meetings on behalf of the Council. She noted that the meeting will be open. She asked the Council to consider whether it wished to participate in any of the other resource groupings.

Jimmy Champion noted that January is a very busy month of meetings for the farm sector and anticipated difficulty in scheduling. Jim Quinn advised that Tuesdays were not good for scheduling meetings. Kristin said that she would get schedule information to the Council as soon as it is available.

### **Population and Employment Forecasts**

Kristin reported that the revised population and employment projections were not ready to present at this meeting. Since the last meeting, comments on the projections were considered and addressed by the forecasters. The revised projections will include high, medium, and low growth scenarios. The Office of Planning and Budget (OPB), which

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contracted the population and employment projections, is reviewing the revised projections and will select a preferred projection to recommend to each council. OPB is meeting with the Governor sometime in September to review the revised projections. The projections are expected to be available by the next Council meeting. Kristin said that the Council would be able to select which projections it would like to include in the water planning process. Kristin noted that the projections are important for the water planning process, but for many other state functions as well.

### **Flint Plan Update**

At the end of the last council meeting, Council members requested information on whether and how the existing Flint Plan would be updated and on permit issued for agricultural withdrawals since the moratorium on Floridan permits was lifted in 2006. To answer these questions, first Kristin said that she discussed the plan update with EPD, and the response from EPD was that the plans that are being prepared in the regional water planning process will update and replace the Flint Plan.

Next, Mark Masters provided an overview of the existing Flint Plan. The Flint Plan involved scientific assessment of water resources and led to adoption of new water resource management practices. Mark reviewed the assessment process and the new management practices that came from the Flint Plan. Mark's slides are available through the Council web portal.

During the development of the Flint Plan, there was a moratorium on new agricultural groundwater withdrawal permits from the Floridan aquifer. With the adoption of the Flint Plan and the adoption of new management practices for agricultural withdrawals, the moratorium was lifted in March 2006. Kristin provided the Council with a map and charts showing where permits had been issued in the Lower Flint, Ichawaynochaway, and Spring Creek sub-basins since the lifting of the moratorium. These are available through the Council web portal.

Jimmy Webb expressed concern that permits could not be issued in parts of the region in Georgia, but in Florida, permits for withdrawals from the same aquifer could be issued. Jimmy Webb and Chris Hobby expressed concern that farmers and Georgia were not getting credit for water flowing into Florida via groundwater.

Chairman Royal asked for a version of the permit map with more points of reference on it. (Kristin will provide to the Council).

A member asked when a permit applicant received a permit and if he would already have a substantial investment before he knew if the permit would be granted. Cliff Lewis explained that the permit was not issued until the process was complete, but the applicant

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would receive a letter of concurrence earlier in the process if the permit was expected to be issued.

Dean Burke noted that in Mark's presentation there were to be no new permits in "red" areas on the map (capacity use), but that several had been issued. Kristin asked Cliff Lewis (EPD) to address this question. Cliff said that exceptions are made to the prohibition if a permit applicant is giving up a surface water permit or if the applicant can demonstrate that another farmer is relinquishing their withdrawal permit. He also noted that if a farm straddles across red/yellow/green areas, the agency works with the applicant.

Jimmy Webb asked if the exception for permits involved selling permits. Cliff Lewis said that permits were not sold, but that agricultural water use permits would transfer with property.

One member asked what "WTP" stands for. It is an abbreviation for well to pond.

Another member asked why a specific permit that had been issued in a red area. Cliff Lewis responded that the information was public, and so, an explanation would be available from EPD.

### **Resource Assessments**

Jim Kennedy is the state geologist. A biographical sketch on Kennedy's credentials was provided to the council in advance of the meeting. Kennedy made a presentation about the resource assessment process, with a specific focus on the groundwater resource assessment. Three resource assessments are underway: surface water availability, groundwater availability, and surface water quality. Kennedy's slides are available on the Council's web portal.

Kennedy provided an overview of groundwater in Georgia and discussed the criteria for prioritizing aquifers in the resource assessment process. With respect to the groundwater assessment, Kennedy noted that in the LFO region, the priority aquifers are the Upper Floridan and the Claiborne. For the Upper Floridan in the Dougherty Plain, he will be using the existing USGS model with some updates to the inputs based on new information. For the Claiborne, he will be using a USGS model from 1997. This model includes several aquifers (Claiborne, Clayton, Upper Floridan).

The output of the assessment process will be a sustainable yield for each aquifer unit assessed. The sustainable yield is the amount that can be withdrawn without causing an unacceptable impact. For the Upper Floridan Dougherty Plain region, an unacceptable impact is defined as (1) reduction of the base flow of streams using 25% of average annual discharge (AAD) as an initial benchmark, and (2) a drop in groundwater levels of

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more than 30 feet that could impact nearby wells or create sinkholes. The modeled values are looking at 90% level recovery within 30 days. The benchmarks may be subject to change during the modeling conducted in the assessment. The sustainable yield will recognize seasonal use.

Kennedy said that after the determination of sustainable yield, management practices can be used to maximize groundwater withdrawals within the sustainable yield of the aquifer. He said the existing Flint Plan can be used a source for management practices.

A council member asked whether Kennedy will be able to calculate the amount of water available in an aquifer. Kennedy answered yes.

A council member asked if Kennedy is considering the movement of groundwater in the aquifer. Kennedy answered yes.

Chairman Royal asked about the use of the USGS models. Kennedy said that the models are a starting point and that the models will be refined with more recent data.

Chairman Royal asked about the use of the 25% of AAD benchmark. Kennedy responded that EPD has used it in permitting and that it will be evaluated in the assessment process.

Kennedy noted that he is working closely with Dr. Wei Zeng, who is responsible for the surface water availability assessment, due to the close interconnection of the Upper Floridan in the region with surface water.

A council member asked whether the MODFLOW model had been reviewed. Kennedy said it was reviewed by a Scientific and Engineering Advisory Panel. He noted that he is using MODFLOW because is it readily available and user friendly, but still sophisticated enough for our purposes.

A council member noted that the Floridan is a very large aquifer and asked how the location of withdrawals would be figured into the assessment. Kennedy responded that this was not a part of the resource assessment, which will look at the aquifer's sustainable yield on a broad level, but that in the evaluation of management practices, we could model based on location to evaluate impacts.

A council member asked how big rainfall events (such as hurricanes) are accounted for in the model. Kennedy noted that they show up in the long-term average data that are being used.

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### Municipal and Industrial Water Demand Forecasting

Steve Simpson presented the methodology that is being used to forecast municipal and industrial water and wastewater demands for the planning process. Steve began by explaining each of the variables from the following PowerPoint slide:

Future Water Need:



Next, Steve explained how future self-supplied water demand was to be calculated. He explained each one of the variables in the following slide:

Future Self Supplied Water Demand:

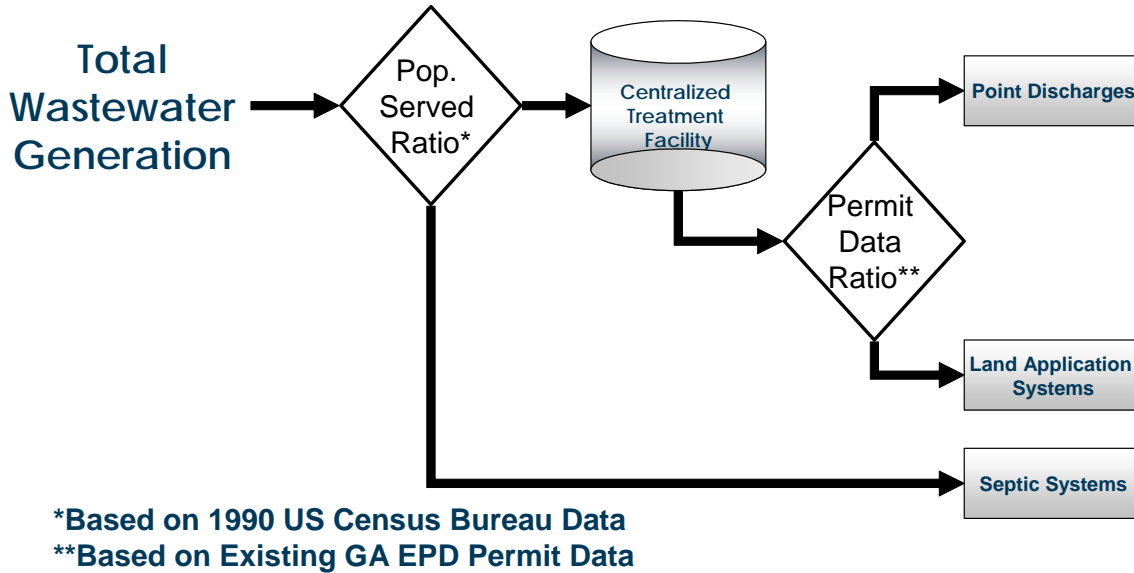


Steve explained that plumbing code efficiency was incorporated into the methodology. This was a result of the 1992 National Energy Policy Act (NEPAct) mandated use of 1.6 gallon per flush toilets. The Savings from replacement of older toilets due to plumbing code efficiencies will be specific to each county based on census age of housing data.

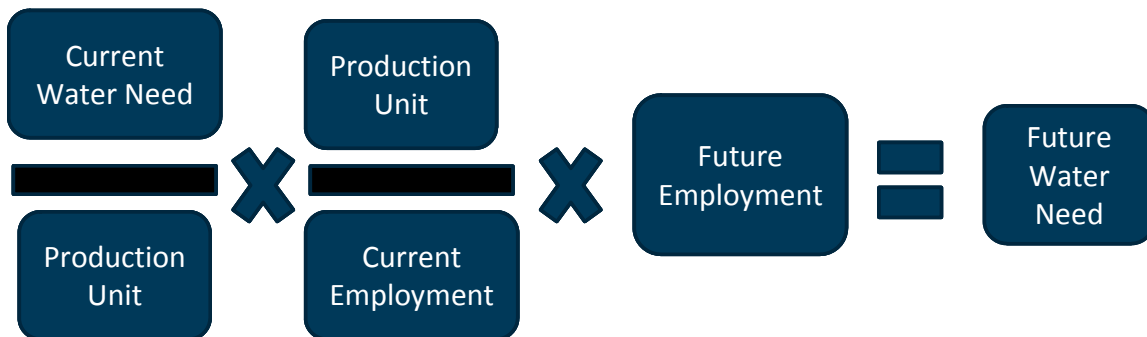
Steve then explained that both inflow, stormwater entering at points of direct connection, and infiltration, groundwater entering through cracks and/or leaks, were incorporated into the methodology. An average percentage will be estimated for each water planning region based on input from water users.



Steve then used the following PowerPoint slide to explain the total wastewater generation methodology.



Next, Steve explained the industrial demand methodology using the following PowerPoint slide. Steve noted water is needed for industrial processes, sanitation, cooling and some domestic (employee) use and this need is linked to production, but production units are in multiple forms and often data are proprietary. Therefore, since employment is linked to production and employment data is available; this data will be used to determine future industrial water demand.



The Council members had the following questions:

- One council member asked what happens if there is water use right near a border and the water use is used in another jurisdiction. Steve explained that this will be investigated on a case by case basis.

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- One member questioned whether one can really capture industrial productivity per person.
- A council member asked about 75 gallons per capita per day number used in calculating the forecasted self supply. Steve noted this was an estimate based on a previous study in Georgia.
- Industrial water use forecasting was discussed. Steve advised that if credible estimates of industry statewide water use are developed, this can be used in the industrial estimates.

Steve noted draft water demand and wastewater flow projections will be presented for review and comment at Council Meeting 4. Steve's slides are available on the Council web portal.

### **Management Practices**

Kristin introduced the idea of management practices to the council. A management practice is any program or activity that is undertaken to meet the forecasted regional water and wastewater needs without exceeding: water availability (surface and ground water) and assimilative (water quality) capacity. Kristin reviewed examples of management practices. She referred to the planning guidance to explain the role of management practices in the regional water plan. She explained that through 2010, the Council would be focused on selecting the management practices that would be a part of the regional water plan. She said that the plan was for the councils to use a decision matrix with weighted criteria to make management practice selections and that management practice selections would be refined based on evaluations using resource models.

Next, Kristin provided an overview of the Water Conservation Implementation Plan (WCIP), which was called for in the Statewide Water Plan and adopted by the DNR Board earlier this year. She noted that the Statewide Water Plan emphasizes water conservation as a priority management practice. The Statewide Water Plan states that while water conservation alone cannot be expected to fully meet future water needs, water conservation is an effective and efficient management practice to meet some needs for all water users in the state. Further, it states that to support current and future use of water, and in accordance with DNR Rules 391-3-2-.04(11) and 391-3-6-.07(4)(b)(8)(ix), water conservation must be incorporated into long-term water demand and supply planning and measurable progress must be made toward water conservation goals and more efficient use of water. The Statewide Water Plan calls for rule-making regarding demonstration of progress by withdrawal permit holders (non-farm) toward water conservation goals/benchmarks identified in WCIP and refined in regional water plans.

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The Water Conservation Implementation Plan includes a series of goals and benchmarks for water efficiency for each of seven major water use sectors in the state (agriculture, electric generation, golf courses, industrial/commercial, landscape irrigation, domestic/non-industrial public use, state agencies). The purposes of the WCIP are to: educate water users about water conservation practices and goals; informs regional water plan preparation; help water use sectors collectively improve water use efficiency; and inform DNR rule-making regarding water conservation requirements in permitting. Kristin referred the council to the full WCIP document for more information. An Internet link to the document was included with the pre-meeting materials and can be found on the Council web portal.

Next, Kristin asked three council members to talk about the water management practices that they use: Jerry Lee, plant nursery; Chris Hobby, municipal water/wastewater system; Steve Singletary, agriculture.

Jerry Lee, Monrovia Nurseries, said that his facility reuses 95% of its water. They are able to capture a large amount of water that runs off the nursery plantings, which have a high runoff coefficient. They have onsite storage for the first 1/2" of rainfall. They use a combination of storage and treatment through a constructed wetland to manage the captured runoff.

Chris Hobby, City of Bainbridge, discussed his city's water and wastewater utilities. The City serves about 12000 people through 6500 water accounts. He said that the city does not have property tax revenues, but instead supports its budget through utility revenues. He said that his water system is well below its permitted capacity (approximately 3 mgd used with a permitted capacity of 4.4 mgd). The City's need for revenue and the lack of a capacity constraint affect how the city manages water. They are very interested in controlling leaks in the system and controlling unaccounted for water use. However, they have relatively low losses and low inflow since their sewer system is newer. Other residential conservation programs do not make sense for his utility.

Steve Singletary is on the board of the Flint Soil and Water Conservation District and the state Soil and Water Conservation Commission. He discussed the District's recent award of \$10 million in NRCS AWEP funds for agricultural water conservation. Practices funded will include refurbishment of ponds, conservation retrofits for irrigation systems, and variable rate irrigation. Funds received for this year were quickly expended, mostly for conservation retrofits. More funds will be available in the coming years.

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

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

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

The next Council meeting will be on November 17 at the Bridge House in Albany. Council member Chuck Lingle has made arrangements for us. Kristin will send details about the meeting.

Next, Kristin referred to two items in the meeting packet that were not discussed in the meeting: water regulatory primer and results of the water topics information needs survey of the council. These are information items for the Council.

Next, Kristin reviewed the meeting objectives and noted that they were met. Next, she reviewed a list of follow-up items that she would be acting on (see below). Finally, she reviewed topics for the next council meeting:

- Municipal and industrial water and wastewater demand forecasts
- Revised population and employment projections
- Plans for joint council meetings
- Vision statement
- Management practice selection criteria
- Region specific information

### **Council Meeting 3 Evaluation**

At the conclusion of the council meeting, the members completed evaluation forms on the meeting. Then, the meeting was adjourned.

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**Action List (Follow-Up)**

- Send comments on population and employment projects from Lower Flint-Ochlockonee region (Kristin)
- Collect and post biographical and contact information (as desired) for Council members on website (Kristin)
- Distribute council contact information to council members (Kristin)
- Submit press contacts (those that you wish to receive council information) to Kristin (Council members)
- Timeline information on plans to make use of agricultural water meter data (Kristin)
- Provide a summary of council activities that can be shared with local government contacts of council members (Kristin)
- Revise the Public Involvement Plan as noted in today's meeting (Kristin)
- Add reference points to the ag permit map (Kristin)
- Draft vision statement (subcommittee with Kristin's assistance)

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**Attachment 1:**

**Lower Flint-Ochlockonee Water Planning Council  
Council Meeting Attendance – September 15, 2009**

**Council Members**

Steve Bailey  
John M. Bridges  
Dean Burke  
Jimmy Champion  
Terry Clark  
Hal Haddock  
Bob Hanner (Ex-Officio)  
John A. Heath  
John G. Herring  
Chris Hobby  
Gary W. Leddon  
Jerry Lee

Chuck Lingle  
George C. McIntosh (Alternate)  
Rick Moss  
Greg Murray  
Jim Quinn  
Richard Royal  
Steve Singletary  
Howard G. Small Jr.  
Steve Sykes  
Will Vereen  
Jimmy Webb

**Council Members Not In Attendance**

Jerry Chapman  
Huddy R. Hudgens, Jr. (Alternate)  
Bill Yearta  
T.E. Moye  
Doyle Medders (Alternate)  
John Bulloch (Ex-Officio)  
Mike Newberry

**Georgia Soil and Water Conservation  
Commission**

Antonio Fleming

**Planning Consultants**

Kristin Rowles, GWPPC  
Steve Simpson, B&V  
Jim Hawkins, B&V  
Nils Thompson, LGB  
Mark Masters, GWPPC  
Robert Osborne, B&V

**Georgia EPD**

Tim Cash, Assistant Branch Chief  
Bill Morris  
Cliff Lewis  
Tommy Rumpett

