

Memorandum

To: Altamaha Regional Water Planning Council

From: Rick Brown and Katherine Zitsch, CDM

Date: 07/02/09

Subject: Council Meeting 2 Summary

This memorandum provides the meeting summary of the Altamaha Regional Water Planning Council Meeting 2 on June 18, 2009.

1) Welcome and Introductions/Recap Council Meeting 1/Approve Agenda

The meeting began with a welcome from the Planning Contractor (PC), the Georgia Environmental Protection Division (EPD), and Brewton-Parker College. An overview of the goals of the meeting was provided. These included:

- Finalizing the Council's operating procedures and rules for meetings. Executing the MOA with the Department of Community Affairs and the Environmental Protection Division
- Reviewing the population and employment forecasts and providing input on the developments affecting employment in the region and developments affecting population and housing in the region
- Gaining a broad understanding of Georgia's current agriculture water use and demand
- Identifying the purpose and nature of the water resource assessments that EPD is conducting for regional water planning
- Continuing the process of creating a regional vision

Results of the first meeting evaluations from Council members were presented. A brief discussion of the next meeting date and location was held. It was decided that

the next meeting would be held at Middle Georgia College. The dates available for the next meeting are September 8th through 25th. Council members will provide available dates throughout the meeting and the date will be scheduled at the end of the meeting. The proposed agenda was presented.

The following comments from Council were addressed:

- Feedback on communications – some Council members are having trouble reading the emails because of scrolling issues. Other Council members have trouble following the internet links. *PC Response: We will attach a word document of the information in emails that you can reference. We will also provide the full link to internet sites in case the shortened version doesn't work.*

2) MOA, Operating Procedures and Rules for Meetings

Council members received copies of the MOA, Operating Procedures and Rules from Meetings prior to the Council meeting. These addressed changes that were requested by the Council. There were two main exceptions to the Council requests that were not incorporated in the final documents:

- The Council will not be able to remove members who have two absences. Instead, it's suggested that the chair will call the member and ask if he or she still wants to serve.
- The Council cannot determine who will replace a member that resigns. Instead, the Council and EPD will make a suggestion to the nominating official.

The chair asked if everyone received and reviewed the MOA. He mentioned that he has and sees no concerns.

Ed Jeffords motioned to accept the MOA. Sue Sammons seconded the motion.

The following questions were asked and the PC and EPD responded.

- In regards to unexcused absences, who is dealing with what is excused or not. *EPD Response: EPD – From a practical standpoint, it should be Brinson [as chair] who keeps track of who is attending. Brinson would ask if the Council member wants to resign or remain on the Council. If there is a conflict, then let Brinson know that*

you can't make it. If a few absences occur, then Brinson may call you to see if you still want to serve.

- What is the specified number of absences? *PC Response - The Council originally talked about two. We can keep it more general than that to allow the Council flexibility.*
- Council member: It's the chairman's responsibility to make the decision as to whether the absence is excused or not.
- A request was made to make sure everyone has Brinson's complete contact information.
- Brinson – If it becomes clear that someone can't attend meetings, we would ask that person to resign.

Brinson made a last call for questions. He asked the Council if they would accept the MOA with changes as presented. There was no opposition; the motion passed.

EPD passed around the MOA. The Council was reminded that a quorum needs to sign, but there is no obligation to sign. After this meeting, EPD will get the signed copies, the final rules, and the operating procedures out to everyone.

The following questions were asked and the PC and EPD responded.

- The more a Council meets, the more people become aware and start to ask more questions. Is there a process for sharing where we are in this planning process with respect to other Councils? *EPD Response: Pre-meeting materials will be on website.*
- A lot of landowners are having questions on what is going to happen. Word gets out that they are only going to use a specific amount of water to irrigate. As we move along, if public interest gets greater, we may need bigger meeting facilities to accommodate the public. The further along we go, the more interest people have, especially as people see what we're doing. *EPD Response: As we move along, we expect more and more public attendance at meetings. We will make sure as we move along, we're at places that can accommodate that.*

EPD mentioned that final copies of the MOA will go to the director of EPD and then the director will send a letter of delegation to Brinson for the Council moving forward.

3) Resource Capacity

EPD presented an overview of resource assessments and the concept of working within the capacity of the resources to help provide a general idea of what we are trying to accomplish with the water plan. A presentation was given on resource capacities, and EPD mentioned that this provides a context to everything.

What do we have in terms of water supply and waste capacity? Forecasts – What will we need for water quantity? The Council will recommend to EPD on how we should move forward. Another focus will be on how to control nonpoint source pollution and develop BMPs for the region. The best way to convey the information and educate people is to get them on board.

The notion of increasing assimilative capacity is not really feasible. We will need to deal with the source. In terms of nutrient loading, EPD doesn't really have in-stream/in-river nutrient standards, but EPD will have them soon. These standards will play a role in future discussions.

The following questions were asked and the PC and EPD responded.

- What nutrients are you referring to? *EPD Response: Nitrogen and Phosphorus, predominantly above major lakes. The discussion surrounds how we can reduce Nitrogen and Phosphorus loadings. This will not be as big of a discussion here. What kind of ideas can we put in this plan for educating folks on ordinances, etc? Reducing non-point loads is going to be important. If we end up with standards and no streams in the area meet the standard, then there will be no place to put wastewater.*
- When you say wastewater do you mean everything from irrigation runoff to storm drain runoff? *EPD Response: I'm talking about Municipal and Industrial discharge. However, if we don't get a handle on non-point sources, then we won't have a place to put future point sources. If we end up with the condition that no city or county can discharge anywhere, there will be quite a dilemma.*
- Is the nutrient level on stream determined by the amount of rain? *EPD Response: All permitting conditions are based on design conditions – something that doesn't happen very often, such as the 7Q10 design condition. We want things to be*

okay most of the time. That's the design condition. If you go 10 years and you're already at average flow, that's great.

- Is having more water in the stream more important? It helps increase oxygen levels. *EPD Response: This is an interesting debate. Most of the streams in this area have 7Q10 of 0. Does that mean that none of them should be allowed to have wastewater discharges? Is providing some flow of lower quality better than no flow for the aquatic community?*
- Are we going to handle the issue of irrigation for agricultural related practice and then move on to industrial type applications? Or, are we going to handle both at the same time? *EPD Response: Just hypothetically – in regards to groundwater availability in region – the region has a couple of different aquifers in it. The groundwater modeling effort is going to tell us how much water we can get from each aquifer. But the aquifer is under 2-3 regions. So, the first decision is how to manage the resource across the different regions. And then we'll look at agricultural groundwater demands and municipal and industrial [M&I] groundwater demands. We'll compare this to the available yield. If we get into situation where yield in this county or that county is less than what M&I or agriculture needs, then you'll need to discuss what to do about that.*
- We have a handle on what crops require in the year. Farmers are concerned about cutting us off at the wrong time. *EPD Response: There is no talk about cutting off. The Council will recommend how to deal with issues and EPD must think it's allowable and defensible. EPD may say some options work and some don't work and start that dialogue. But we're not there in a discussion about cutting off supply.*
- With rules and regulations, the way I see it right now is the State and EPD have pretty good control of the water. This is because County agents insisted that if you want a permit, you need to get a permit. In the Lower Flint Basin, no one could get a permit because if they all pumped, then the Flint River would go dry. *EPD Response: If we do get to the point where we understand farmers need a specific amount to do what they need, we need to allow them what they need. If a farmer wants to dig a well and irrigate, we don't want to set a limit where other land can't be cultivated. Down the road you are going to have discussions about agricultural water usage. Later today, Cliff Lewis will give a presentation on what we know and what info we're going to have.*

- There are probably some regions in the state that are at the maximum amount in terms of water supply. In our area, which is loosely populated and large, at this point in time we should always be knowledgeable and mindful of clean water, but we have a lot of water. I'm not sure that water in the Altamaha region is going to be a problem unless it's needed in other regions. *EPD response: There is no plan to move the water elsewhere. You have an opportunity to make that clear.*
- People in rural areas worry that our votes get diluted. We don't want to have our needs diluted by the greater population. *EPD Response: Maybe people should start to look to moving where water already is. You could suggest that. In this plan, you'll have ample opportunity to make that point as many times as you want.*
- Council – We are up against the wall with delivery of water and that's where we are caught. I don't have any belief at all that we would put into place practices that would extract groundwater that would be anything like other places. Are we going to have autonomy to make decisions for our region? We know where our resources are – we grew up here – and we know where they aren't. Our water needs are going to be far less than what we actually have. Are we going through this process to make sure water is divided amongst the state? Or is it going to stay in this basin? *EPD Response: There is a continuous discussion on interbasin transfer. There are not a whole lot of situations where water is moved too far in Georgia. We expect that to continue, but laws change all the time.*
- Going back to case at the Flint River – only a small percentage comes from the river. Our concern here is more that how we manage our water affects our coast. We can't lose marshes and estuaries. We could get into some concept that if we conserve water here, it will sustain growth in the metro area upstream. Our charge is to make sure that doesn't happen.
- That's a question going into this. If we really know what outcomes of the water plan the water Council wants to have, then we can work toward that a little better. We want to know the agenda better. We must maintain marsh and estuaries. Is this plan just for the Altamaha region or all regions together? *EPD Response – There is no upfront agenda for sure – it's all open for discussion. The key is that decisions we make here can't contradict with folks upstream or downstream and their decisions. Historically, reductions of flow in the Altamaha*

River meet with a lot of discussion. But there is opportunity during high flow times of the year to use more surface water to allow for more groundwater use in low flow times.

- Economic development and growth is in larger metro areas. We're talking about using water for agriculture and to sustain our quality of life. Up there it is the lifeblood. It's so severe in metro areas, that water is becoming a question on economic growth into the future. We don't think they're clandestinely trying to take our water, but 60% of the votes are in metro area. We need to be aware of that.
- What about groundwater? Our groundwater spans several regions. If we end up in a situation where we know the capacity of the aquifer, how it will be recharged? Is there a greater need in one region for water than their share would normally be? Where is the arbitration – how are we going about deciding water is available for the Altamaha region? *EPD Response – There is no prescribed formula for resource allocation at this point. Folks need to talk about it.*
- Council –Keep in mind that the regions were setup on surface water, but aquifers cover 4-5 different regions.
- The Planning Contractor pointed out that sustaining agriculture may be really important to one Council member, but there may be someone else on this Council or another Council that feels maintaining a strong industrial base is important. We're going to have to capture those concepts early, then reconcile for the region, then larger regions, then the state. We need to get foundation materials into place so that when we get to end, it's not a surprise to the Council. We need to take on the visioning now to make sure we have it and the methodology right. Let's get the component parts right and then we'll start talking about the end point.
- A Council member pointed out that the State of Georgia's Environment 2009 is a good resource.
- A Council member mentioned that he went to two meetings – one on the water wars and one on Metropolitan North Georgia Water Planning District (MNGWPD). It's against law to transfer water from one basin to another. It's also against the law for metro Atlanta to pull from outside their area. But one

thing about our aquifer is that major recharge points are in another district. That's why – if that water is stopped before it gets to the recharge – we're going to be in trouble down here. We need to put our heads together for our water and hopefully the State plan will not compromise our needs.

The Planning Contractor pointed out that the next agenda item is to talk to the Carl Vinson Institute about population and employment projections. Prior to that, the meeting minutes from meeting 1 need to be discussed. It was pointed out that the date of the meeting should be revised to the correct date of May 5th.

Dan McCranie made a motion to accept the minutes with one correction (date of meeting as May 5th). Ed Jeffords seconded that motion with a note that it was May 5th. There was no dissent; the motion passed.

4) Population and Employment Projections

A background presentation was given on population and employment projects – both the results and the processes. The PC pointed out that Dr. Warren Brown from the Carl Vinson Institute is scheduled to join the Council meeting to discuss the projections.

- A Council member asked how members are supposed to give comments back to the Carl Vinson Institute. *PC Response: – There is a “mining for local knowledge” form that people can fill out on web. In this forum (the Council meeting), you can comment any way you want. You can write comments and provide them to us directly. The mining for local knowledge focus is on specific topics. If you have comments on methodology or anything else, write them down and provide them to us electronically or in any other fashion. We want to get it basically right on population and employment. If we hit the projected population point in 2045 rather than 2050, we will have planned for that. We want to get as close as we can and we will revisit every two years.*
- A Council member noted that if someone goes back to 1988 and 1989, population projections were embarrassingly wrong when the census came. The census wasn't right either. When you look at these, you can find a lot of fault and could talk all day long. Retailers are not going to towns that they used to. They are going to regions and this is changing the population. This is not shown in here. Immigration is not shown in here. If you take these numbers that the state puts out that are generally wrong – there are other

ways you can project and come up with other numbers. *PC Response:*
Regionalization may account for greater population in some areas at a county level.
This is good to know and is the type of information Warren Brown needs to know.
EPD mentioned that Dr. Brown is open to suggestions for adjusting the methodology.

The Office of Planning and Budget and the Carl Vinson Institute joined the meeting via conference call.

Kathy from the Office of Planning and Budget (OPB) pointed out that in the past, OPB has done projections in house, but the last time it was done was in 2004. OPB had a chance to evaluate their projections and found we needed more local input. The process is critical for planning Councils, so OPB wanted to make sure they did a really good job and increased the level of expertise for this area. OPB hired UGA, and as part of the contract asked them to hire an advisory board. The Advisory Board includes: ACCG, ARC, the Carl Vinson Institute, DCA, DOT, EPD, RDCs, GMA, OPB, and the State Fiscal Economist with Georgia State University.

Thus far in the review process, the advisory board has reviewed stakeholders input received via the website. In May, the RDCs presented preliminary numbers and asked for feedback. And now OPB is taking advantage of the advisory Councils and getting feedback from you folks as well. Numbers will be official projections and released in August. These will be used for health care, state water planning, and K-12 funding. We are hoping to have updated information every 2 years. There will be regular input from RWPCs as well as the advisory board. We appreciate input from the water Councils.

Dr. Warren Brown of the Carl Vinson Institute (CVIOG) mentioned that the projections that the Council is looking at were done through a number of iterations and changes to the methodology and assumptions. Warren provided some background, including the fact that he is new to Georgia. He started in January to develop the applied demography program at UGA. Prior to that he was at Cornell and also developed and ran a similar program in the state of New York. That's what we aspire to do in Georgia. Jeff Dorman is a colleague of Dr. Brown's in this effort. He is an economist with the UGA Agriculture & Applied Economics Department and has been there for 20 years.

Jeff Dorman has traveled extensively around the state working with counties. He prepared our employment projections. This is important, as part of the employment outlook is also affected by the population outlook. The Carl Vinson Institute contracted

with the University of Texas - San Antonio to produce model. Texas and Georgia share similarities, including that they are two of the largest states in the country, they are two of the most populous states in country, and they are two of the most rapidly growing states. Both have population fed by immigration from other states and abroad.

Starting with population and employment projections, we then altered the population projections to bring population more in line to what the employment projections were. In regions where population growth is driven not by employment but by an influx of retirees, etc., we believe the current approach is not sensitive enough to those sources of population growth, so we are making further adjustments. We are really interested in getting from feedback from you - the planning contractors will forward it to us. You should fill out the forms identifying economic development projects that are underway that will have major impact on employment in region (or just outside region, but will have major impact on population inside the region). Also include residential development projects that might not be tied to employment but will impact population in the area. We can research them and see if they are development that would cause us to alter the trajectory of growth.

The PC pointed out that the original population forecasts were four million people higher than the numbers adjusted by employment forecasts. What was it in employment impacts that brought down the population by four million people?

CVIOG - Employment forecasts are from the Georgia Department of Labor. Every three months, they do a census of all employers in state to get payroll information. CVIOG looked from 1990 through the most recent, quarterly census of employment and wages, including jobs data in the state for various industrial segments. This included state regional and industry specific information. Then they could project forward from that point.

For population data, CVIOG only has 1990 and 2000 census data points. There are estimates for 2007 and 2008 prepared by census bureau.

Historically, the periods from 1990 to 2000 and 2000 to 2007 showed extraordinary population growth in Georgia - not necessarily uniformly - but statewide. In some portions of the state the growth was extraordinary. Today the state unemployment figures were released, Georgia historically has unemployment lower than nation, but now it's above the nation. This is consistent with a rapid growth in population -it

oversupplied the labor market. Population in the workforce has grown more rapidly than the demand for labor. That didn't drive our decision, but is consistent with our decision to tie population more closely to employment than it has been. Our current model overreacts and restricts population growth to salary and wage employment. Increase in retirees and self employed people are also factors that would drive population growth. The current thinking is that we need to get a better handle on the factors that are driving population growth, which may not be strictly salary wage labor, and incorporate those into the numbers. The final set of numbers should be higher. We're not going to see substantial growth in our projections, though. They may go up 500,000 to 1 million people statewide. Another issue is too much of population growth employment growth in the Atlanta region is perhaps restricting growth elsewhere. It could well be that the spillover effect from the Atlanta region would be impacting surrounding regions. This is less of a factor in Altamaha than in northern counties around the Atlanta region.

The following questions were asked and OPB and CVIOG responded.

- Looking through the numbers, how did you include prisoners in populations? I'm looking at Tattnall County. Not many people live in that community. When you go to project use for schools and things like that, how do you deal with prisoners? *CVIOG Response – Excellent question. At this point prisoners, students in college dorms, and older people in nursing homes have not been broken out separately. They are included in base projections and used by demographers in UT- San Antonio. The next step in the plan once we have total population numbers is to break out households versus those persons living in group quarters (and by age, sex, etc.). They are in the total numbers but not broken out separately at this time. They will be.*
- Planning Contractor Question – so, you take out the group quarters population, project population growth, look at how group quarters population might change, then add it back in? *CVIOG response – We need to make the split first. Then we need to develop appropriate methodology for group quarters, but break out and treat it somewhat separately. To what extent are people in group quarters (nursing home) from one county versus from elsewhere in the state? County jails function demographically as people from the county. State and federal prisons are separate from county population because more people can come from*

elsewhere. We will treat these as separate tracks – group population versus household population.

- Suggest looking at Tattnall County – it is the smallest county in the region, but it's showing as becoming the largest county. One or two other counties are probably growing the other way. CVIOG – *This kind of comment is tremendously useful for us. Please submit it formally. We will submit as a question on record in detail. Another Council member echoed the comment and is considerably concerned that we'll be way off in Tattnall County.*
- Some of Georgia's counties are so small that if you work with county data, you will get in trouble. Cameron County is showing very little growth, but it's on the edge of Statesboro and becoming a bedroom community. Several counties will grow more than is currently shown because of proximity to other areas. CVIOG – *That is the problem with the model as we're currently using. As employment centers spread, we're not picking it up in bedroom communities. Georgia has a high number of counties – the 2nd most number of counties to Texas – represent opportunities and challenges. We can monitor this going forward.*
- In the water region, there are 16 counties. One pattern shows where six counties grow every five years. The other 10 counties grow until 2030 and then decrease to 2040 and then start back increasing to 2050. I'm curious as to the reason. CVIOG – *Part of the problem is that the UT-San Antonio projections went to 2040. I grafted those projections into employment projections using a population to jobs ratio. I need to relook at that procedure. There is not a smooth transition between the two. That's something that I've got to fix. I'm suspicious there is age detail in the original demographic projections from UT-San Antonio's work that for counties that are aging – this is a national and statewide phenomenon – there is a growing and growing population over 65, then mortality becomes more of a factor relative to births. This is dampening down growth as the older population becomes a higher portion. I'm suspicious that might be a factor. I'm cataloguing this to serve as a tangible reminder to look into that.*
- My county is increasing and then takes a profound decrease. I'm trying to understand the specifics behind that. Specific comments will be provided to the planning consultant, but I'm trying to understand the dip in the latter years. I'm referring to Wayne County. We're seeing a different picture that

the projections show. CVIOG – *There is essentially no growth/no decline for looking that far out into the future.*

- In Tattnall and other communities on the east side, they are bedroom communities to Fort Stewart and might be more sensitive to population increases (and employment). The same goes for the prison system.
- In terms of birth projections, how are we handling people born in other counties and non-citizens? OPB – *Birth records show the county of residence, so it doesn't matter where the birth occurs from a hospital location. The more difficult question is how to establish residency. Residency is separate from citizenship and that's the harder question.*
- What are you doing about immigration and birth rates? CVIOG – *What we relied on was the concept of "will past trends continue into the future?" Past trends – if we have good data – we can clearly establish. In the absence of things we know will happen, we assume past trends will continue into the future. How can we be certain that what we're projecting will take place in 2040? We can't. But in part that's the nature of projections – as we get out further, the error band (higher/lower) keeps getting wider and wider. It's like tracking the path of hurricane.*
- Planning Consultant – Let's look at immigration for a second (showed chart). CVIOG took different immigration scenarios. A 0 immigration scenario, 0.5, and 1.0. In the current scenario for the state, one that goes out to 2050, it's falling pretty well within those extremes. However, the immigration graphs for Altamaha show a very different pattern. CVIOG – *We did multiple scenarios, which was the process in Texas. If migration scenario from the previous decade (1990 – 2000) were to hold throughout the period of projections, what would it look like? That's the top green line. There is a geometric progression. The rate of migration continues up and that's a high number for the region. The next line down is based on the census bureau estimate for 2007 and what we can infer -- basically, what if those rates of migration remain constant. Not as robust as the 1990 – 2000 scenario. For the red line – we throttle back and say the rate of migration continues at ½ rate of 1990s. That brings the regional population in at 360,000. The dark blue line with diamonds assumes no net migration and just naturally increases births and deaths. The lighter blue is the workforce scenario – we constrain population growth to stay proportionate to the ratio of people to jobs, so that they stay in line with each other. That one turns out to be very conservative – only 300,000 people. It crosses the zero*

net migration assumption in 2040. What concerns me about this is such a departure from historic pattern of 1990s and 2000 – 2007. Folks in Texas usually use the 0.5 scenario as the starting point for evaluating projections. If you're in a high growth area, it's unlikely you're going to maintain that rate of growth over long haul. I'm concerned that our workforce scenario for this region is too conservative and we will relook at this. Historically, how has this region grown compared to change in jobs? We have a graph that you saw that related population and employment through 2007, but my impression is that our population projections are too conservative. Are employment projections too low or did something extraordinary happen between 2000 and 2007 that is not to be repeated?

- *There has been a major change in the workforce as manufacturing & textiles went away. With that, 25% of the jobs went away. CVIOG - But why did the migration rate and population grow? The downturn in the textile industry is what's dampening employment projections. This scenario assumes no net migration in this area. Ins and outs balance each other. The statewide graph gives me a comfort level. I look at this one and wonder what's wrong.*
- *In the statewide graph, you show the Georgia population doubling, but jobs only going up from 4 to 6 million. How is that sustainable? CVIOG- The ratio of population to employment is relatively constant.*
- *It doesn't seem like they go up at same ratio. CVIOG – The Statewide 2010 population = 10M, employment = 4M; The 2050 population = 16M, employment = 6.6M. The ratio goes down a bit from 2.5x jobs to 2.4x jobs.*
- *For Wilcox County, the population starting point shows a number including prisoners. If you take in all of these counties, we have 15,000+ prisoners. I'm concerned our starting point is skewed a little if we don't take that number out. CVIOG - Are some private prisons or are some state? Both state and private.*
- *How accurate is the base number we're starting with in 2010? CVIOG - The 2008 census bureau estimates were our starting point. If the census estimates were wrong, then we're starting at the wrong beginning point. Our partnership with OPB extends to getting the census bureau to estimate county population correctly.*

- A number of these counties show increases. But we're looking at regional centers. With so much loss of industry, I don't think the projections are accurate. I don't see the numbers increasing that much.
- How are you incorporating the recession into the starting point? CVIOG – *The employment assumptions are that by end of 2010, employment levels will return to where they were at end of 2008. Population is not as responsive to the recession as jobs are. Typically in widespread economic downturns, people stay put. If in a high growth area with a lot of in-migration, between 2008 and 2010 we will not see that same level of in-migration, but following 2010 it will resume on that trajectory. That's how we're incorporating the current economic recession.*
- What's the impact of ports like the Port of Brunswick? How is that reflected in our employment? CVIOG – *That would be an employment question, and I'm not sure. I'm looking at the listing of industries to see whether and how that would show up in employment projections for region. I will have to take a pass on that – if you'd like to enter that question and send it on, Jeff can respond to that.*

PC – We know you've been hard at it and appreciate you taking the time today. We look forward to working with you in the future.

CVIOG – Keep in mind that this is a continuous project. In the Fall, we will work with each Regional Commission to have a day-long training on the process in each part of state. We look forward to coming to your region.

John Roller then introduced current Mayor of Mount Vernon, Joey Fallon. Mayor Fallon welcomed everyone to Mt. Vernon and Brewton-Parker College.

5) Agricultural Forecasting

Cliff Lewis with Georgia EPD presented an overview of agricultural water use. He discussed how agricultural wells were permitted, including well to pond versus well to surface. EPD doesn't want to double count water use, so they want to catch it coming out of the ground. The following questions were asked and EPD responded.

- Can a permit only be issued to a land owner? EPD – *That is Correct. We've only been permitting agricultural wells back to 1988, so this is a growing process. It's supposed to be issued to the landowner, but some property owners aren't even aware*

of permits. NRCS [the National Resources Conservation Service] is trying to get that correct, but it's a constant process.

- *Is it the same for industrial wells – must be the owner of the property? EPD – Industrial wells may be permitted to either the city or the industry. For example, an industrial park with a water system that supplies water to various industries in that park. Some permits are issued to a development authority.*
- *How long does it take to get permit? EPD – We do our part in about three weeks. Then the Soil and Water Conservation Service (SWCS) must install a meter. Some people get it metered quickly, but some take longer depending on how quickly commission is moving.*
- *In other words, you can't wait until you need it to get a permit. You will have to wait three weeks. EPD –If you're in a hurry, call the office and we'll let you fax in the application and our geologist will do a quick analysis of the situation. In some areas of the state, Flint River for example, may not be able to permit. If your crop burning up, you can get it sometimes that afternoon and give it to the well driller. This program is certainly a service oriented program. Permits listed out of Atlanta prior to 2005, but it has now moved to Tifton. SWCS – When we get a call that a well has been drilled and there is a meter on it, we try to get to it within 1-2 weeks. We can run into a problem when well drillers don't fill out the form.*
- *What is the purpose of metering these wells? Are you just establishing the amount of water being used? EPD – None of the data used in agricultural forecasts can be tied to individual permits. The original intent of meters was because of the tri-state water negotiations we're in. All other water use sectors are metered. But we didn't know about agricultural pumping. So, the other states threatened to sue. We embarked upon a process to get better data so that we have an answer for Florida. The purpose is just to quantify. To enhance it a little more, it is intended to be used on the farm as a water management tool.*
- *What are farmers' perspectives on that now? Are they planning to use as much water as they can now to establish baseline? Council response – They can't afford to. EPD – It cost money to run the pump. Farmers are not out there using a bunch of water because they can't afford to.*

- I'm not using as much water as a municipality may think I am. I only water June, July, and August. *EPD – 10 years ago, EPD's water use estimates were up to 18 inches of water. We now know it's more like between 8 and 10 inches. The education is invaluable for our own state and for other states.*
- We've become a lot more efficient. We maximize our use when the plant needs it. We make sure there's not a lot of runoff. We use drops on pivots, we don't water during midday. We've come a long way in last five years of water use.
- The mid-west issue is water rights. Farmers might be thinking the less water I use today, the less they'll give me.
- As long as we don't get to the California standpoint . . . you don't want to own your water. If you own something, they can take it. *EPD – Georgia is a riparian rights system. You have reasonable rights to the water underneath and adjacent to your property.*
- Many of these permits are not being used. The meter gives you which wells are being used and how much water is being used. *EPD – We get more and more of these data in, so five years from now the data will be enhanced. The short term impacts allow NRCS or SWCS to identify high water use areas. They can cost share programs to put in conservation and upgrade equipment. With more data, we will have a much better knowledge base. In five years, when it comes to update the plan, we will have a better picture of water use.*
- What people don't realize is that it costs a lot of money to pump that water. The less amount people pump, the better off they are. *EPD – This is correct; it's just a matter of perception.*
- A farmer may pump more total water in those four months than I do in my city over those same four months. But in the city I pump every day, so my annual amount is higher.
- What limits my ability to permit? Is there a limit to how much? *EPD – The ability to permit is limited by whether you're in an area of restrictions. You tell me what you need and we'll give it to you. I do not have the authority to manage your*

farm for you. If your estimate is excessive, I might call you up, but if you say you're sure, then we will permit it.

- Wells and pumps put in today are a lot more efficient than 10 years ago. EPD – *If we do see a well on a farm that's not permitted, we'll work to get you what you need to get you in compliance. We'll work to get you protected. That sheet of paper is your protection. Certainly a portion of users throughout the state are people that aren't aware that a permit is necessary. This is especially true in North Georgia.*

EPD reemphasized that the first round of metering is based on five crops – soy, cotton, corn, peanuts, and pecans. Veggies and specialty crops are not currently included in forecast, so the Council should be aware of the limitations of the forecasts. There may be areas such as in the Altamaha region where vegetables have big production values. The Council may need to take that into account when making decisions. The Council should be aware of the limitations of the forecasts. At the third meeting, when we roll agricultural forecasts out, I'm sure you'll have questions.

- Are golf courses, nurseries and turf production included in agriculture demands? EPD – *They are not included in the forecasts.*
- Are agricultural ponds less regulated than other ornamental ponds? EPD – *Yes.*

6) What is Modeling and an Introduction to Resource Assessments

The Planning Consultant provided a Power Point presentation which covered an overview of modeling. It provided information of what modeling is, what its limitations can be, and each of the resource assessments (groundwater availability, surface water quantity, and surface water quality). The following questions were asked by Council members and answered by the PC and EPD.

- In the assumption of modeling, how much consideration has been given regarding changes in vegetation (row crops etc) and erosion control measures in recent years? Is that being considered by Tetra Tech? PC – *We will check with the modelers and pass along this question.*
- What is the white county showing a lower percentage of ground water use? EPD – *This is the large Plant Hatch surface water use, which changes the ratio of surface to groundwater withdrawals.*

- Has there been modeling to trace the time from infiltration to recharge of the lower aquifers. *PC - There have been studies of infiltration between aquifers (in some cases, it's limited) and there are rates of infiltration for areas.*
- How much water does Macon take from the river? *EPD - It depends on how much flow there is in the river and how much water they have in the Town Creek Reservoir. They pump from the river at high flow and store it. They use more stored water when the river flow is low.*
- Is this a good management practice? *EPD - It can be expensive but it is theoretically possible given proper site conditions and dollars. There are about 30-40 places where this is taking place in northern Georgia. In regard to groundwater yield, keep in mind we need to eventually determine how much impact is okay/sustainable in the long term.*
- *PC- Keep in mind that the ground water model will be a broad picture of yield over a large area but not site- specific variations. Additional scenarios will need to come from Councils.*
- There have been some historic changes where some springs have dried up possibly due to ground water use.
- As part of the resource assessments, will there be opportunities to do field trips to certain areas within the basin? *PC - It is definitely possible. The Council should make suggestions and field trips could be arranged.*

7) Creating a Regional Vision (continued)

The Planning Consultant provided a Power Point presentation which provided an overview of the next steps in the visioning process. The goal of the next steps of visioning is to answer the question: "What do you want your rivers, lakes and groundwater to do for you and the citizens in your planning region?" The purpose of the next step is to answer the "what" question not "how" we will get there. For instance, the next step is to get to the goal of "provide a reliable water supply" not the "how" answer of "through a new reservoir." The Council has a homework assignment to determine the "what." The PC will provide an example level of detail. Each Council member can do as many as they want, but the goal is to do them well. The following questions were asked by Council members and answered by the PC and EPD.

- We need additional technical information. For instance, where the aquifer recharges, how fast it recharges, how fast it has dropped in last 20 years. How do we make decisions without this information? *EPD - Most cities have to maintain readings on their wells. So we should be able to provide information like, in the last 20 yr period, the water level has dropped 20 feet. It may have also recharged so we can provide that information.*
- My point is to do these things, we have to have knowledge of what is happening and what is going to happen. *PC- The USGS/EPD have installed wells throughout region and they are monitoring them. EPD - The modeling consultant is using that information to build the model.*
- We need that information.
- What you're asking us at the moment is to concentrate on the "what" Is important to us in the Altamaha region. The models will help with the technical - agricultural water use, water use studies, etc. Right now you're just asking not to worry about the technical, just the "what." *PC - yes, the "what" is very important. As we get data, we can use it to identify how we can address the resources and needs that are important to the Council.*
- This is a large group; we can have a lot of discussions. We can go over the what and why and when. What I'm asking for is how can we as individuals get the information we need other than email? *EPD - Part of the information process will be focused on providing information during Council meetings.*
- If we can get this information, we can intelligently answer questions.
- This is important, I'm going to ask the consultants how much impact (feet down) is okay. But we don't have an information baseline to know what has been going on. What is the info right now for the aquifer that we're sitting on? Where are we today? What do we really want?
- A lot of our individual situations are varying. I know my water level is 30 feet higher than last year. I have wells caving in because we have groundwater that we haven't had for 20 years.
- When you have plenty of rain, you won't have this problem anywhere.

The Planning Consultant noted that we know we need to tie resource assessments down more. We need to answer questions like, "What is current condition? What are the aquifers properties?" We also need to look at future uses. The first part though is to answer the question "What do you want your rivers, lakes and groundwater to do for you and the citizens in your planning region today and in the future?" Consider what they do to support region and economy, how they are related to natural systems, how they are related to quality of life. Other parts are linked to this, but you're making it a little more challenging by tying what's important to what's going on currently things that may or may not happen in the future.

- I have reviewed the environmental reports. They show four wells with a drop in groundwater. The drop is basically 25 feet from 1975 – now.
- Where can people go to download the information? Council response - on the email that CDM sent and also on EPD website. It's worth reading.
- EPD has on their website a summary of Upper Floridan Aquifer. This gives a lot of information including USGS information. It was completed while we were still in a drought, so it's exacerbated by drought conditions. There has been considerable improvement. *PC – We will try to populate as many of those resources on the water planning website so you will have access.*

8) Public Involvement Plan

The Planning Consultant provided an overview of the status of the public involvement plan. EPD is developing a plan for the Council to review and comment upon. It was emphasized that there is a need to have open meetings and participation by the public, for communication with other Councils, and for involvement of the Local Government Advisory Body.

9) Conclusions and Wrap-up

There were no local elected official's comments or public comments. The next meeting date was set for September 17 at Middle Georgia College. During the closing of the meeting, the following questions were asked by Council members and answered by the PC and EPD.

- Did other public officials receive the DVD on population and employment?
PC – It was sent to mayors and county commission chairs, but we're not sure if it has gotten to staff; that effort is up to the officials.
- I'm going to request that members reach out to local officials.
- When will revised population and employment numbers come? *PC - They should be available before the next meeting.*
- There were a couple errors in the summary white paper on "Georgia's Water Resources: A Blue Print for the Future". The Altamaha river starts in the wrong county (it starts in Wheeler/Montgomery, not Telfair). Also, Plant Hatch is shown in the wrong location.

A discussion was held regarding handouts at the next meeting. It was agreed that the PC would try to print critical slides six to a page for Council member use.

Meeting evaluation forms were distributed and filled out.

Altamaha Regional Water Council

Council Members Attendance List

Altamaha Council Member		6/18/2009
1	Gary Bell	
2	Randy Branch	
3	Guy Rex Bullock	X
4	James Mark Burns	X
5	Gerald A DeWitt	X
6	Will Donalson Jr.	X
7	Cleve Edenfield	X
8	Jim Free	X
9	Randy Giddens	X
10	Len Hauss	X
11	Edward S Jeffords	X
12	Phillip Jennings	
13	L. Brinson Lanier	X
14	Dan McCranie	X
15	Steve Meeks	X
16	Greg Morris	
17	Buddy Pittman	X
18	Michael A. Polsky	X
19	John E. Roller	X
20	Sue B. Sammons	X
21	Doug Sharp	X
22	Paul A. Stravriotis	X
23	Jim E. Strickland	X
24	Dent L. Temples	X
25	Lindsay Thomas	X
26	William G Tomberli	X
27	Michael Williams	X
28	Tommie Williams	
29	Russ Yeomans	X

Totals 24

Public Attendance List

Public Attendee		6/18/2009	Representing
1	Ted Evans	X	Georgia Farm Bureau
2	Don Giles	X	Georgia Farm Bureau
3	Neill Herring	X	GA Water Coalition
4	Rahn Milligan	X	GSWCC
5	Bryan Snow	X	Georgia Forestry Comm.
6	Alison McGee	X	The Nature Conservancy
7	Steven Diagle	X	GA Power

Totals 7