

Memorandum

To: Altamaha Regional Water Planning Council

From: Rick Brown and Katherine Zitsch, CDM

Date: 06/22/10

Subject: Council Meeting 6 - Summary

This memorandum provides the meeting summary of the Altamaha Regional Water Planning Council Meeting 6 (CM 6), held on June 22, 2010 at Little Ocmulgee State Park.

1) Welcome and Introductions/Recap CM 5/Approve Agenda/Approve CM5 Summary

Chairman Brinson Lanier called the meeting to order and asked

Chairman Lanier provided an overview of the agenda and kicked off the meeting.

The PC asked the Council for a motion to approve the meeting summary; Lindsay Thomas moved to accept the summary; Gene Tomberlin seconded the motion. The Council unanimously approved the meeting summary.

Next Ed Jeffords made a motion to approve the agenda and seconded by Rex Bullock; Council unanimously approved the agenda.

Chairman Lanier mentioned that Dr. Jim Strickland had spoke with the Prison at Reidsville and they would be happy to host a Council meeting. Ed Jeffords moved that we have the next meeting in Reidsville; Jim Strickland seconded and the Council agreed unanimously to have the next meeting in Reidsville.

The PC then provided an overview of the CM #5 meeting summary and Council feedback regarding the meeting. Overall the Council felt CM#5 was very useful.

The meeting continued with an overview of the objectives for Council Meeting 6. These included:

- Review water and wastewater forecast results;

- Review current and future conditions resource assessment model results as they relate to indentifying water and wastewater needs/gaps;
- Gain and understanding of joint resources shared by neighboring regions;
- Discuss management practices subcommittee work on management practices, screening and decision making process; and
- Discuss initial subcommittee work on water plan development, and plan schedule.

The possible dates for Council Meeting 7 were discussed. The PC suggested that Council members think about the date and time in August that would work best for a meeting and it was agreed that Council would finalize the date and location at the end of the meeting.

The PC then proceeded to the next major agenda item.

2) Review Water Plan Schedule, Status and Next Year's Work

The PC presented two schedules. The first schedule outlined the major tasks and timeline for completing the various major activities needed for developing the overall regional water plan. The second schedule focused specifically on completing the various plan sections that will need to be written. The PC mentioned that a report out on the Council subcommittee that is assisting with plan development will occur later in the day. In addition to drafting the individual sections the schedule identifies the major review processes including producing two intermediate drafts of various sections and a final draft each of which will be submitted to EPD for review and input. Once a final draft is completed in the November-December time frame there will be a formal public comment period of about 45 days. Following public comment Council will need to consider the comment and make relevant changes. Following public comment EPD is charged with making a final determination to approve the plan, accept the plan with conditions, or request revisions to the plan that would allow it to be approved.

CM: How are we progressing in regard to the schedule and what happens if Councils do not finish their plan by December?

PC: In general Altamaha is doing well and is probably at or a little ahead of other Councils.

EPD: If Councils do not finish the plan EPD may need to fill in any blanks that are left in the plan.

The PC emphasized the significant amount of work that needs to be completed over the next 6 months and mentioned that to complete the work it is recommended that we continue to use subcommittees to keep work progressing between full council meetings. Currently the Council has two active subcommittees: Management Practices Development, and Water Plan Drafting and the PC mentioned that if today's the discussion these topics peaks the interest of any Council member then please feel free to volunteer for the subcommittee(s). The PC also mentioned that we can add additional subcommittees if they are needed. One area/topic for which we may need a small committee is to engage in inter-council discussions on shared resources.

3) Revised Water and Waste Water Forecast

The PC presented information of forecasted water demand by sector for the Altamaha Council. The increase in water use from 2010 to 2050 is expected to be 32.2 mgd in groundwater and 9.0 in surface water (41.2 total). Water forecasts were then presented by county, uses, and sources. Overall, the region uses approximately 35% surface water and 65% groundwater.

Graphical results for each county were presented based on source, use and 2010 versus 2050 forecast. The PC presented an animated summary of bar charts for each County by each demand sector highlighting the source of supply, total and incremental demands.

CM: A council member pointed out that if you look at the demographics of growth – Toombs County has grown by a personal septic tank a day (300+ per year). No growth in City limits – all out in County. Same thing in Candler County (northeast corner) – lots of septic tanks, but doesn't show up in City water system.

PC: This would be included in self supplied demand.

CM: In my opinion developers can't afford to build in City limits because of requirements, so they are being built outside of City limits. All are on wells with septic systems. It was suggested that the PC check the forecast and self-supplied may be higher than public supply for future forecasts.

PC: The PC pointed out that the demands for self supplied are based on a lower gallons per capita per day in part because municipal includes commercial and light industrial. So in light of that the data does show moderate to high growth in self supplied water use.

CM: What is driving the water usage growth in Toombs County?

PC Response: We are looking into the drivers for the population projections, but it is based on demographic information.

CM: In the area of Toombs County, why is there more surface water than groundwater for agriculture?

PC: The split between surface and groundwater is pretty even. The data comes from permitted information and Dr. Hooks agricultural projections that were discussed in Council Meeting 2.

Another CM noted that USDA funding has a lot to do with developing surface water for irrigation. There was money for building agricultural ponds and reservoirs – for livestock and irrigation.

A CM noted there have been some fairly large reservoirs built in the Toombs County area that are being used for irrigation purposes.

CM: Can we separate river withdrawals from pond usage?

PC: That would be difficult to disaggregate and should not be a major issue exempt in areas where we may have times of low surface water flows; such as on the Canoochee during dry years.

A CM noted that the water increase may be a lot bigger than what is projected for agricultural usage. If you look at national trends, the fact that we have this water is going to change the agricultural use significantly. Keep in mind that surface water impoundments – when we get into drought, we'll be pumping those and the water won't be going into the streams.

PC: The management subcommittee discussed this. When we write the water plan, we need to describe these national trends even if we don't know what the impact will be. Agriculture is an important way of life for this region, so we need to protect our resources to allow this to continue. Moving forward, we need to look into whether we have the ability to capture water to use during drought.

CM: As we look at aquifer water use in our area since this is a resource we share with the Coastal region and others, will we look at overall regional sustainable yield?

PC: Yes, and we might need joint meetings to discuss this in more detail.

CM: We may need to address agricultural surface water use and surface water quality in our management practices. If our chain of agricultural ponds don't address this, maybe we need to include the need for them in management practices; put something on paper that what we're doing for agricultural is not harming the area.

4) Surface Water Availability Resource Assessment

The PC presented a summary of the surface water RA focusing on current conditions. More information is being developed regarding future conditions modeling and that

information will be available for both the Management Practices subcommittee meeting and Council meeting 7. The PC provided an overview of the river basins and local drainage areas (LDA). It was noted that the LDA is a smaller watershed that contributes surface water that is measured by long term river gauges, which for planning purposes have been designated as planning and basic nodes. The PC highlighted areas of major withdrawals and major returns and described how flow regimes are calculated for regulated (areas that have major upstream reservoirs) and unregulated watersheds/LDAs. It was noted that the flow regime is the minimum flow that needs to be maintained during dry conditions to protect instream needs. It was noted that this is a minimum level of protection and does not necessary provide for all ecosystem needs. The flow regime is defined three ways: 1) flow requirements from reservoir with permit or instream flow release requirements; 2) in unregulated systems the 7Q10 which is the monthly lowest 7 day flow period that occurred during a 10 year period; or 3) in unregulated systems the daily unimpaired flow (modeled flow with human uses removed) if it is lower than the 7Q10.

The PC showed several charts indicating that under current conditions the areas that are experiencing low flow conditions that are not meeting flow regimes during drought are the Claxton and King Ferry Planning Nodes. The PC highlighted that under current conditions there is storage remaining in Lake Jackson and above Milledgeville even during dry years. It was pointed out that the percent storage is the percent of water still in the reservoir above the inactive pool after demands and release from storage are made.

CM: Do Planning nodes have river gauges to measure flow?

PC: *Yes they are locations with long-term gauge records.*

CM: For the Canoochee where are the surface water withdrawals coming from it does not seem there is that much surface water agriculture?

PC: *The summary data does show a modest level of surface water agriculture in this portion of the region and there are surface water permits for agricultural irrigation.*

CM: If there are surface water gaps on the Canoochee how will these be addressed; will we be boxed into reducing consumption?

PC: This will be a council decision process to look at the causes of the gaps and possible options to address the gaps. This could include changing source of supply, incentives and conservation, surface water storage and other ideas the Council may have.

CM: It is important for use to realize that what we choose to do and what other above us choose to do will impact flows in and below our region.

CM: Yes and it is important for use to fist look at our region and then also meet with other regions that we share resources with.

CM: Yes and at some of the Joint Meetings several upstream people indicated that they think we have plenty of water in our region and we need to make sure they understand that this is not always the case and that during drier there is not significant flow in our streams and there are water quality challenges.

CM: I agree and we also need to consider if there is a need for flows above the minimum that were discussed earlier.

CM: Looking at the flow maps indicates that there is a natural pattern of high flow then low flow. Is there a way of having some of the higher flow available for low flow periods?

PC: Yes if storage is a preferred and feasible management practice but all options should be considered.

CM: Have there been many comments on the Resource Assessments?

EPD: No, not a significant amount.

5) Surface Water Quality – Assimilative Capacity Resource Assessment and Current Impairments

The PC then presented information on the water quality RA highlighting the different modeling and other water quality assessment tools that have been developed to help Councils define their water quality needs/gaps. The PC provided an overview describing locations where assimilative capacity modeling has been developed. These locations include stream reaches where there are current discharges, and the model provides information on the amount of dissolved oxygen that is available in the surface water. The PC showed several paired comparisons of current conditions and modeling under future permit limits. It was noted that the dissolved oxygen results contain several somewhat conservative assumptions on the volume and concentration of effluent and that areas which may show little to no assimilative capacity may need to be looked at in more detail. Consequently local knowledge and follow up from Council is critical. It was also emphasized that additional data collection can be an element of the selected management practices.

CM: In the example that shows Alligator Creek why does the assimilative capacity change from current to permitted conditions; this area is mostly timberland.

PC: It appears there is also a discharge to this reach.

CM: What is the discharge at Pendleton Creek?

PC: Not sure it appears to be at the upstream edge of the Council boundary east of Dublin. You are using these maps in the way that was intended and the Management Practices subcommittee will be looking into these issues in more detail as needed.

CM: Can Council members get together at a more sub-regional level to look at some of these local data points?

PC: Yes, we just have to be mindful of time and technical resources.

CM: We have to also think about how much more wastewater our streams and rivers can take. Also what about non-point sources?

PC: The data on the maps with TMDL listed segment provide information on the potential cause of the water quality impairment including whether non-point source pollution is suspected as the cause.

CM: Are we going to require higher levels of waste water treatment?

PC: That can be considered as part of management practices development.

CM: How much dissolved oxygen is there in groundwater?

PC: I do not know the exact amount but it is low possibly in the 2-3 range depending on the groundwater.

CM: If we do our work now is it possible that standard might change and require additional actions?

PC: Yes it is possible that standard could change and/or new standards may be adopted. Nutrient standards (i.e. nitrogen and phosphorous) are likely coming soon.

CM: Can/do upstream discharges impact our area?

PC: Yes that is possible depending on the location and type of discharge.

CM: Are all contractors in sync and know what each of the other Councils is doing?

PC: That has not been a major focus so far and we may need to do more of that in the future especially in regard to joint meetings.

CM: Has there been any subtype work done on fecal coliform to determine if the source is from human or animals in the environment?

EPD: There have been some academic studies but they have been limited in scope.

6) Ground Water Availability Resource Assessment

The PC provided a summary of the RA for groundwater describing the region-wide sustainable yield values for the prioritized aquifers. The prioritized aquifers include the Upper Floridan in the eastern coastal plains and south central Georgia and the Cretaceous aquifer, which is primarily located to the north of our region running roughly from Macon to Augusta. The PC reaffirmed that under current demands the existing groundwater use is below the aquifer sustainable yield. Under future conditions the demand gets close to the sustainable yield. It was emphasized that the modeling assumes a fairly uniform distribution of demands and that localized high-density well/groundwater withdrawals may need to be looked at in more detail to ensure that localized issues do not occur.

7) Closing the Gap Guidance

The PC reviewed a recent letter from EPD Director, Allen Barnes and pointed out that Director Barnes appreciates the tremendous challenge that the Councils have in addressing regional needs and gaps. In his letter he emphasizes the need to be proactive and put in place plans and recommended actions to close gaps but also recognizes that in some cases additional data may be needed to more fully characterize needs and close gaps. Director Barnes recognized the iterative nature of the planning process and recognizes that some activities may need to be further addressed in future updates to the regional plans.

The PC also highlighted that we do need to move forward where we have data needs and where the modeling tools are still in progress. If there is a gap that we've modeled or an assumption made in terms of shortage, we may determine that we need to look into these further. The model is a tool, but the Council as experts in your communities need to help "truth check" the models.

For each of the gaps presented, the Council needs to work very diligently to close surface water quality and quantity gaps as well as groundwater gaps. If you can't solve all of

those gaps in this round, collection of additional data may be an acceptable recommendation.

8) Shared Resources Discussion

Next the PC described specific areas where the Council shares surface water and groundwater resources. A preliminary list of potential neighboring Councils with whom the Altamaha Council may need to have discussions was presented. The Council did not make any final decisions and it was generally agreed that the PC can work with a smaller group; perhaps the Chair and Vice Chair and maybe a few members to flesh this out in more detail. The initial potential coordination areas may include:

- Water quality, headwaters of Ochopee River flowing into Johnson County from Upper Oconee?
- Water quality/quantity, rivers coming in from Middle Ocmulgee and Upper Oconee near Wilcox, Dodge, Wheeler, and Treutlen Counties?
- Water quality/quantity, Canoochee River flowing from Evans County into Coastal Georgia?
- Water quality, headwater tributaries of the Alapaha River flowing from Wilcox County, and tributaries of the Satilla River flowing from Jeff Davis, Appling, and Wayne Counties into Suwannee-Satilla?
- Upper Floridan in eastern coastal plain and south central Georgia (Suwannee-Satilla), in eastern coastal plan (Coastal), in south central Georgia (Middle Ocmulgee and Upper Oconee)?

A council member suggested that we may need to meet with councils all the way up to the headwaters in Atlanta.

CM: I suggest consultants, chairs and co-chairs need to sit down with neighboring regions to see where we need more dialogue. Need to discuss opportunities that can be met with upstream reservoirs.

9) Management Practices

The PC presented an overview of the definition and purpose of management practices that can be used to address both Council vision and goals and gaps between current and future needs and available resources. The PC handed out an initial list of management practices. The PC also presented a summary of the results of the Management Practices subcommittee. The major points discussed by the subcommittee included:

- Reviewed forecasts and discussed Alternate Industrial forecast methodology
- Discussed forecasted needs in relationship to available resources
- Review initial “universe” of management practices
- Reviewed and discussed a potential *Decision Making Process* for screening and selecting management practices

The PC thanked Gerald, Len, Mike, and Paul for their participation and input!

Input from the subcommittee included:

- Overall the Subcommittee supported the information presented and the direction of the Water Plan. The following points were made:
- The group mentioned that, overall, groundwater availability does not look like a major issue.
- We may need to at the location of the future ground water demand to get an idea of how well spacing and withdrawal are portrayed in the ground water model. It was noted that well depth, size, and distance between wells are key parameters in meeting or exceeding sustainable yield.
- It was noted that the modeled prioritized aquifers are not the only source of ground water supply. Self supplied ground water users may tend to use the shallower surficial aquifers and may be more vulnerable to drought
- Tradeoffs between upstream water development and flow and water needs in the region were discussed. It was noted that some people think there is plenty of water in the region which is partially true in wet years but not in dry years. It was suggested that we learn more about how, where and when water may be developed upstream and possible effects to flows in the region.
- Water quality will be one of the bigger challenges in the region.

- Flow and water quality on the Canoochee should be looked at in more detail. It may be beneficial to work with a small group of agricultural users to identify possible management practices.
- Flow regime – the subcommittee recommended having more information on the relationship between flow and environmental values; possibly a presentation from Wildlife Resources Division. It was also noted that the US Fish and Wildlife Service owns/manages about 160,000 acres on the Altamaha. **This information was corrected by a guest in the audience who indicated that the land is state owned.**
- The outline of the Decision Making process is good start to help Council screen and select management practices.
- Some Preliminary Input on Management Practices.
 - The group reviewed the “universe” of management practices but did not have any specific recommendations

CM: Noted that the Army owns lot of land – Fort Stewart – and they are buying easement perimeter wide for non-interference with training in terms of noise. This will slow down water usage as land becomes/stays undeveloped.

The PC then provided a general overview of demand management/water conservation highlighting the point that this is considered a priority practice and also a major emphasis of the State’s political leaders. While water conservation is not expected to fully meet water needs, it is an effective and efficient practice for all water users. The PC provided a brief overview of water conservation management practices and highlights from the Water Stewardship Act (SB 370).

CM: A council member pointed out that most regulations are on municipal water supply and don’t address agriculture. Are there plans in place to address agricultural irrigation?

PC: Currently they are more incentive based.

It was pointed out the some farmers would love help with water conservation since it costs money to pump.

Brian Snow, Georgia Forestry Commission (GFC) then provided a presentation on their 2009 Best Management Practices Survey Results for the Region. Brian mentioned that the GFC evaluated 19 randomly selected sites covering about 2600 acres. The survey of compliance with Best Management Practices showed overall implementation at over 90 percent and compliance with BMPs over 90 percent. Bryan noted that the Region had at or

near 100% compliance for several BMPs, and the greatest improvement in compliance was seen in stream crossings.

Finally the PC described a decision making process that can be used to screen and select management practices. A decision tree was presented that included screening of management practices based on implementability and effectiveness. The recommended process relies on the Council's operating rules and principle of consensus based decision making for those decisions where consensus can be reached. For more complex issues and/or if consensus cannot be reached the PC provided an overview of a "scoring" process that could be used that utilizes the Region's vision and goals as performance objectives and metrics to determine if the vision and goals are being met. It was emphasized that the scoring process does not make the decision, but rather it provides more information to the Council to aid them in the decision making process. The Council agreed that the process would be a good way to proceed.

CM: Will the Council have an opportunity to suggest minimum recommended standards (water flows)? Are the standards set? *The minimum standards have been set for example on plumbing fixtures, but you have the opportunity to go beyond recommendations.*

10) Water Plan Development

The PC provided a summary of the items discussed by the Plan Drafting subcommittee. The Subcommittee met on May 18th in Lumber City to discuss drafts of some initial plan sections and the Subcommittee feedback will be incorporated into a preliminary draft that will be submitted to EPD. The following points were made:

- The group generally supports a shorter, concise Plan document with backup documentation in technical memoranda or appendices
- Methodologies should be well documented
- The Plan needs to portray regional water use in the context of "why it is vital to the regions communities from a quality of life and economic sustainability perspective"

The next step will be for the PC to develop a revised draft. A second draft will be developed with the subcommittee over the next month. The PC mentioned that it is recommended that as we get more polished sections we have Council approve individual sections. This way the Council can build upon each section and then vote on approval of

the plan as a whole knowing that the individual sections were approved and this will be less onerous on the Council members.

CM: Kevin (EPD) and Deatre (DCA) for those of us that don't serve on city councils/county commissions – do you hear things from council/commissions about RWPC? Deatre – hears more from staff, though does present water plan information to councils and commissions.

CM: I have a concern that for all the Councils in Georgia it seems that many of our elected officials oblivious to the fact that there is a water planning process.

Deatre - it seems that there is less information getting to the general public, very little information put out there – as far as they're concerned this is just something being done in Atlanta.

Kevin –regarding local officials, a number of regions have sent out emails and letters – asked GMA to send out emails and letters –still with all of that outreach the response has been very minimal; until we get to suggested ideas and management practices – then people might get more interested.

Since last meeting, Chairman Lanier mentioned he met with Allen Barnes and two points stick in mind: 1) this will be a living document; we do the best we can do with the data we have and may change in 2-3 years. 2) Be mindful of neighboring states (FL, SC, AL) most especially regarding flow and water quality.

CM (Len Hauss): I have been getting several questions and requests from folks at home to discuss fishing. I am glad to hear it mentioned today. I would also like to share with Council something that I think is appropriate for Council to consider. I have a short Resolution I would like to read: "The Altamaha Regional Water Planning Council believes that the fish and wildlife in and around the streams in the Altamaha Region are of vital importance to the people who live in the Region, and their preservation and protection is a high priority for the Altamaha Regional Water Planning Council." I would like to make a motion that Council acknowledge that this is something that is important to us.

The motion was seconded by Rex Bullock. Len Hauss also presented a letter from Mark Williams, State Representative, which read: "I have read the resolution to be introduced by Len Hauss on 06-22-2010. This resolution that supports the viability of our watershed and its importance to our hunters and fisherman should be a part of any final work product of the council. Please give this resolution up-most consideration."

Council voted unanimously to adopt the resolution.

11) Local Elected Official Comments

There were no local elected official comments.

12) Public Comments

There were no public comments.

13) Wrap-up and What to Expect Next Meeting

The Council agreed to hold the next meeting in Reidsville on August 24th, 2010.

14) Council Meeting 6 Evaluations

The PC distributed the evaluation forms and members of Council filled out the forms. The PC collected the forms. The meeting was adjourned.

cc: Kevin Farrell, EPD

Altamaha Regional Water Council
Council Members Attendance List

Altamaha Council Members		6/22/2010
1	Gary Bell	
2	Randy Branch	
3	Guy Rex Bullock	X
4	James Mark Burns	X
5	Gerald A DeWitt	
6	Will Donaldson Jr.	X
7	Cleve Edenfield	
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	
15	Steve Meeks	X
16	Greg Morris	
17	Buddy Pittman	X
18	Michael A. Polsky	
19	John E. Roller	X
20	Sue B. Sammons	
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 Tomberlin	X
27	Michael Williams	
28	Tommie Williams	
29	Russ Yeomans	

Total 18

Altamaha Regional Water Council
Public Attendance List

Public Attendee		6/22/2010	Representing
1	Meiko Camp	X	GA DNR WRD
2	Deatre Denion	X	GA DCA
3	Ted Evans	X	GA Farm Bureau
4	David Ferrell	X	NRCS
5	Neil Herring	X	GA Water Coalition
6	Alison McGee	X	The Nature Conservancy
7	Rahn Milligan	X	GSWCC
8	Harold Mobley	X	GA Power
9	Tom Putnam	X	Langdale Industries
10	Ken Rosanski	X	Oglethorpe Power
11	Bryan Snow	X	Georgia Forestry Comm.
12	Amos Tuck	X	GA DNR WRD
13	Troy Windham	X	Congressman Jim Marshall (GA-8)
14	Jason Wisniewski	X	GA DNR WRD

Total **14**