

Memorandum

To: Coastal Georgia Regional Water Planning Council

From: Rick Brown and Katherine Zitsch, CDM

Date: 12/27/10

Subject: Council Meeting 9 - Summary

This memorandum provides the meeting summary of the Coastal Georgia Regional Water Planning Council Meeting 9 (CM9), held on December 15, 2010 at Richmond Hill City Center in Richmond Hill, Georgia.

- 1) Welcome and Introductions/Recap CM8/Approve Agenda/Approve CM8 Summary, Update on Water Resource Related Meetings, Public Comment

Chair Ben Thompson called the meeting to order and welcomed the Council members and visitors. Chairman Thompson thanked the Council members in attendance and expressed his appreciation for those members that have contributed to the subcommittee work and participation in the full Council meetings.

Chairman Thompson and the Planning Contractor (PC) provided an overview of the agenda and kicked off the meeting. The PC asked for approval of the CM8 Summary; Randal Morris moved for approval of the agenda and the agenda was accepted by consensus.

The location and possible dates for Council Meeting 10 were discussed. The PC suggested February 16 in Richmond Hill and asked Council members to check there schedules during the day and suggested revisiting the proposed date at the end of the meeting.

The PC then gave a recap of Council Meeting 8 and asked for approval of the Council meeting 8 summary; the summary was approved by consensus. The PC also mentioned that two corrections were made to the CM 7 summary (after Council approved the summary) regarding correction and clarification of the location of the proposed Plant

Washington power plant and information regarding the Coastal Sound Science Initiative groundwater modeling.

The PC then outlined the following objectives for Council Meeting 9:

- Selection of Final Management Practices for Regional Water Resources
- Discuss final information considerations for Energy Forecasts
- Review status of Water Plan Drafting
- Discussion of Water Quality including TMDL listed streams and 319 grant program
- Review schedule for completing the Regional Water Plan

The PC summarized the significant major accomplishments made by Council over the last year and a half and highlighted the two major remaining tasks (management practices and plan drafting) that need to be completed to finish the Regional Water Plan. The PC then discussed the memorandum from Director Allen Barnes, Georgia Environmental Protection Division (EPD). The memorandum provides a revised schedule for completing the water plan and essentially allows Councils an additional 3 months to complete the regional plan. The PC recommended that we stay close to the original schedule and try to complete our draft plan by mid-February. This will allow Council some time for internal EPD review prior to formal public comment. The PC mentioned that this could be discussed in more detail later the morning.

The PC then updated the Council on two important activities that occurred since the last Council meeting.

First, there was a meeting of the Joint Committee on Water Supply on December 8 in Atlanta. The Joint Committee was created by Senate Bill 370 (also known as the Water Stewardship Act). The PC made the following observations:

- The Joint Committee on Water Supply is comprised of 5 members of House, 5 members of Senate
- House and Senate Natural Resources and the Environment Committee chairpersons to serve as co-chairpersons
- The Committee is required to study and analyze the state's reservoir system and strategic needs for additional water supply

The full membership of the Committee is listed below:

Senate

Ross Tolleson (R - Perry), co-chair
John Bulloch (R - Ochlocknee)
George Hooks (D - Americus)
Butch Miller (R - Gainesville)
Jack Murphy (R - Cumming)

House

Lynn Smith (R - Newnan), co-chair
Rick Austin (R - Demorest)
Bob Hanner (D - Parrott)
Randy Nix (R - LaGrange)
Harry Geisinger (R - Roswell)

Several state agencies testified including EPD Director Barnes, Georgia Environmental Finance Authority, Georgia Soil and Water Conservation Commission, as well as the Georgia Chamber of Commerce, Georgia Water Planning and Policy Center, and Georgia Conservancy. A strong theme for the day was the need for funding and the need to continue to have ongoing discussions of water issues in a Committee format. The current Committee will sunset on December 31, 2010.

Council Member (CM): Was the Committee aware of the work being done by regional water councils?

PC: There were different levels of understanding and by the end of the day the Committee was more up to speed on the work of the regional councils.

CM: Did you get the idea that the Committee is primarily focused on reservoirs?

PC: No, the discussion was broader in nature than reservoirs.

CM: I notice that this region is not specifically represented and I hope we are careful that the limited dollars that may be available for regional needs does not just focus on solution(s) to Atlanta's needs at the expense of other regions both from a financial and natural resource perspective.

CM: The sunset provision in the legislation allows the Coastal Region to get specific representation.

The Council asked to get the above list of current membership.

CM: It would be good to make sure our region has representation if this group continues. Regional reservoirs upstream of our area can alter flows that could negatively impact our region. Studies of water supply solutions for the upstream area should focus on costs, impacts, as well as benefits.

Second, the PC mentioned that an Instream Flow Ad Hoc meeting that was held on December 7th in Macon and highlighted the following points:

The meeting was well attended with an estimated 50-80 people about three quarters of which were Council members.

EPD facilitated the meeting and provided background on the State Instream Flow Policy.

A guest presenter, Mary Freeman, Research Ecologist, United States Geological Survey provided a PowerPoint presentation highlighting river ecology and flow related functions that occur during different flow regimes. Ms. Freeman mentioned that the 7 Q 10 flow metric is a metric that addresses drought conditions but that other flow related benefits can be considered beyond those that address dry year flow conditions. Ms. Freeman's full presentation and additional information about the meeting can be found at: http://www.gawaterplanning.org/pages/resource_assessments/instream_flow_ad_hoc_meeting.php

The meeting concluded with a discussion regarding whether the Council members in attendance had any specific flow related research language that might be appropriate to include as recommendations in the current draft plans to help prepare for and/or include in the next round of water planning. No specific recommendations were identified or discussed.

Council member John Godbee attended the meeting and noted that it was interesting to learn that 7 Q 10 is one metric and it was interesting to hear the other options that have been considered under the state instream flow policy and by other neighboring states.

Following the updates, Chairman Thompson asked if there was anyone from the public that would like to offer comments which would be relevant to the Councils discussion regarding management practices.

2) Public Comment

Mr. Chris Peterson, Plastic Tubing International addressed the Council regarding proposed Management Practice - ASWS-8 which is focused on helping improve surface water flows during dry year conditions (7 Q 10). Mr. Peterson noted that the resource

assessments considered septic systems as 100% consumptive use and this is not correct. The timing of waste water returning from septic systems to the surface water is not as immediate as city sewer but the treated wastewater does return. Mr. Peterson also noted that it is easy to overlook cost. Septic systems are a cost effective means of treating wastewater in more rural settings. Mr. Peterson asked the Council to be open minded and "don't look for quick fixes" that would negatively impact the use of septic systems where they are cost effective solutions to wastewater disposal.

3) Selection of Proposed Final Management Practices

The PC began the discussion by outlining the Management Practice selection process that the Council has undertaken over the last 4 months which included starting with a broad universe of practices then developing a short list based on cost, effectiveness and implementability. The short list was then compared to relevant management practices from both local Comprehensive Plans and Watershed Protection Plans and additional practices were added if they were not already included. The PC then provided an overview of the Council recommended management practices using "Road Map" figures for water quantity and water quality developed from the detailed list of practices.

The overall approach to addressing resource gaps and future water supply needs is based on an incremental and adaptive process with those practices that are lower cost and more easily implemented emphasized in the short-term (1-10 years). If resource gaps and needs are not being fully addressed, then more costly and more complex practices will need to be considered for implementation in the mid (10-20 years) and long-term (20-40 years).

In the Coastal region addressing future needs is even more complex due to bi-state stakeholder discussions on Salt Water Intrusion and the Total Maximum Daily Load stakeholder process for the Savannah Harbor. Consequently, to allow a complementary water planning process to fit with these efforts the Management Practices are still fairly broad in nature and represent a "tool box" of options. Once there is greater certainty on the possible range of outcomes from the two stakeholder groups the Council selected Management Practices can be refined but the timing of the efforts are such that the Council will need to complete the draft plan before all the outcomes are known from the stakeholder processes.

The PC noted that the most immediate needs in the region regarding water supply are addressing the surface water gap at Kings Ferry (which will also require coordination of management practices with the Altamaha Council regarding the upstream gap at Claxton and Savannah-Upper Ogeechee and Upper Oconee for the upstream gap at Eden), and addressing the groundwater gap in the yellow (Bryan and Liberty Counties) and red (Chatham and southeastern Effingham) zones.

CM: Does it make sense to break this region into subsets - recognizing what happens with bi-state in SC will dramatically affect some areas of our region? Should we develop a set of management practices where we know they are implementable, but put an asterisk that others may not be decided upon until we know the final resolution of other unknowns?

CM: I am not sure that it makes sense to break up the region. I think we talked about the idea of "trigger points" that would help address these unknowns and we can indicate those information items or changes that would "trigger" reopening/revising our plan to address new issues and information.

CM: It seems we are writing the plan knowing it has to be changed for a part of the region? Does EPD have any guidance on this?

EPD: You can certainly look at the green zone and possibly be more specific there since that's not part of our discussions with that steering committee but I do recognize that the range of solutions that may be identified in the bi-state discussions could impact how people think about groundwater use in the green zones. Consequently, a more general/holistic approach with appropriate caveats is probably the best thing to do and wait for more definitive information from the bi-state discussions. You also may want a voice in this, and I don't want to keep you from having that voice. We're looking at comprehensive solutions between two states and you are charged with developing a regional plan so we want to make these processes as complementary as possible.

CM: In your opinion - will the bi-state discussions only affect the red and yellow zone?

EPD: Jim Kennedy, EPD and State Geologist can do some pretty detailed modeling of several different scenarios. One could ask him to model additional wells in the green zone and see how that would affect red and yellow zones and salt water intrusion rates on Hilton Head Island. Other than technical side, you may want to give recommendations in plan. We will then need to see how that melds with recommendations from the bi-state stakeholder process and we also have to see if this is amenable to entities on the Georgia side.

CM: I think it is difficult to have an implementation schedule and costs without knowing what will be implemented.

CM: Does our current approach to management practices allow for set of management practices for red and yellow zone and a separate for green zone?

PC: Yes, they can be applied in varying combinations, depending on where you're at.

PC - The Council has put a lot of effort into this and it would appear that within 6 months to a year, there may be some more clear sideboards put on the range of management practices. What we know is that once these sideboards are determined, this Council forum may be a good venue to discuss implementation considerations. Michelle, Frank and others have suggested the possibility of triggering events if we want to come back and revisit the plan.

CM: It seems a key question at hand, could we reassemble after we complete our draft? If there are substantial recommendable actions I think it makes sense for us to recommend that Council reconvene.

EPD: As long as the Council exists that is a possibility.

PC: Your current term as council members goes at least through February 2012.

CM: Do we want to write management practices - a subset of potential practices for the red and yellow zone so you don't have to amend the whole plan, just subsections.

PC: Currently, our lists of management practices include both short and long-term practices and can address needs that are more clearly known and situations where there are some unknowns.

EPD: One item I noted is that the management practices do not include ocean desalination and possible reverse osmosis of brackish water. I know these are costly and energy intensive and the Council screened these practices. It may be a good idea to consider including these if other actions are not effective perhaps in the mid or long-term.

CM: Yes that seems to make sense.

CM: Before we move on why do we have a category for "rural best management practices (BMP)" but only have one BMP? I think we have only identified the road maintenance BMP so should we just call it what it is?

PC: We have the general category in the event that other BMPs are added in the future but it is really up to the Council to state it the way you prefer.

CM: I think it is good to keep a general category.

CM: For the category of urban BMPs I think we should change that to read urban/suburban since many of our areas are more suburban in nature.

PC: At this point we recommend a break and give you some time to talk among yourselves about any other changes you might have and to review the detailed list of

practices. After break you can provide any specific comments on management practices. Please also note that if Council wants to go through the detailed list page by page we can certainly accommodate a more detailed review but you have previously gone through the list and we are trying to be sensitive to your schedules and not be overly redundant.

4) Selection of Proposed Final Management Practices Continued - Water Conservation

The PC then presented additional information regarding Water Conservation which is considered a preferred management practice. The PC reminded the Council that as part of the pre-meeting materials the Council was sent detail Water Conservation guidance and a worksheet that showed the various tiers of conservation practices. The Council was requested to consider action on the following topics:

- i. Does Council agree with the 25 Water Conservation Goals and/or are there some that should be added or deleted?
- ii. Are there any specific additional (other than those outlined in the detailed list of practices) Tier 1-4 Practices that Council would like to include in the regional plan?
- iii. Are there any specific recommendations for water use data reporting that Council would like to include in the regional plan?

The PC reviewed the water conservation practices that were included in the 2006 Coastal Georgia Water and Wastewater Plan for Managing Water Intrusion.

CM: Regarding water reuse and recycled/reclaimed water is there real potential in this area to make this a significant part of the region's water supply? My understanding is that it may be somewhat limited. Do we have a feel for what should be aggressively pushed?

CM: In large part, as part of coastal permitting strategy, that is going to become a reality. It's a condition of the strategy that anyone with withdrawal permit needs to look at feasibility and cost of purple pipe and reuse. As a renewable water supply, independent of cost, it is very implementable.

CM: How specific can we be regarding water use reduction targets for the conservation practices - whether they are for agriculture or industrial or energy? Somehow in the language we ought to reflect what has been done in recent years (3-5 years) in any of these categories of water use to lower groundwater or surface water use so that the investment isn't lost and we start from 0 at time of introduction of water plan.

PC: Reporting hasn't been as systematic across sectors. Where we can document demand reduction we will include this in our estimates of water use. As you can see from the summary of the 2006 Water and Wastewater Permitting Plan for Managing Saltwater

Intrusion, water systems are to be metered and conservation pricing to be implemented. In the next round of planning there will be better data and Council can consider recommending additional data collection on water use.

The PC then asked the Council if there is general support for the 25 Water Conservation goals. The Council agreed that the goals appear reasonable and they did not have any additional goals to suggest. Next the PC asked if there were any additional Tier 1-4 conservation practices and mentioned that during the subcommittee meeting there was a suggestion to include adding rain shut-off sensors on non-agricultural irrigation systems as a management practice for our region.

CM: Do we want to recommend rain shut-off devices? It is not a mandate it is recommending to local communities that they consider it as a requirement when permitting new subdivisions. This way we keep it a local decision.

CM/Department of Community Affairs (DCA): What about data collection? Remember one of the issues with water use was that we wanted to have the best per capita usage data and many water providers do not collect the data in a manner that allows a breakdown of water use based on residential, commercial and industrial water use. Again this seems like a good thing to recommend in this region it would not be a mandate, just as we go forward Council is suggesting that water providers improve their data collection.

CM: Is there anything that encourages use of shallow wells for irrigation? In urbanized system, could we replace with purple pipe?

CM: There are several pros and cons, so maybe we should drop it since it is a site specific consideration.

Chair: I think we have two proposals that have general support and we should act on these:

- i. Recommend automatic rainfall shut off for outdoor watering for new developments.
- ii. Recommend improving water use data by recommending collecting water use data for residential, industrial and commercial sectors.

CM: In regards to 2 I support recommending not requiring. I do not have a problem with 1 but from realistic standpoint sometimes it's better to irrigate when it's raining as you need 1-inch of water and adding to existing rainfall can be beneficial.

CM: I support the wording “to encourage these actions via recommendations to local decision makers”. I like this approach and it contributes to the culture of conservation we are trying to establish.

Chair: Over the last several months we have identified a number of management practices that can be used to address our future needs which are also consistent with our regions vision and goals. Today we have had a chance to reflect on the work of our Council and our management practices subcommittee. I would like us to take a formal vote on the detailed list of management practices you have in front of you and I also want to make sure we summarize the additional items that have been mentioned today.

First, Council wants the PC to add information on desalination and reversed osmosis as longer-term actions and include this in our final management practices.

Second, Council wants to include a management practice recommending rain sensor shut offs for outdoor watering in new subdivisions.

Third, Council wants to include a management practice recommending that water provider obtain water use data for domestic, commercial and industrial water uses to help improve future water use forecasting.

Finally, Council wants to revisit our draft plan no later than December 2011 to consider any relevant outcomes of the bi-state committee that is looking at options to address salt water intrusion. If there is relevant information from the committee the Council will need to meet in September/October to consider this information and determine if any additional recommendations, changes, and/or refinements are needed to the draft final management practices we are considering today.

With the above points incorporated into the final management practices I would like those Council members that support the final list to raise their right hands. Council unanimously approved the final management practices for incorporation into the regional plan.

5) Water Quality

The PC then reminded the Council of the availability of funds to address water quality issues in the region through a new element of the 319(h) grant program. Up to \$100,000 in grant money is available for one or more qualifying projects in the region. In order to qualify a project must provide a water quality benefit, and the local jurisdiction sponsoring the project has to provide 40% in matching funds.

The PC noted that there are several TMDL listed segments that may benefit from funding and provided several examples of the types of programs that are eligible for funding and those that would not qualify. In the next couple weeks please identify any potential projects or issues you are aware of. EPD is also assisting by compiling a list of projects that have applied for funds in the past but have not yet been funded and those projects may be good candidates for this program.

CM: I think a project on Horsepen Creek may have applied in the past through the traditional 319 program.

6) Energy Forecast

The PC addressed the Council regarding the last component of Council input that is needed to complete the forecast portion of the Coastal Water Plan. The energy forecast has been completed at the regional level through 2020 and at a state wide level between 2020 and 2050. The Council has the option to plan for some of the 2020-2050 energy need being produced within the region.

Based on feedback from the Council management practices subcommittee the PC has developed 3 scenarios:

- i. Use the percent of estimated 2020 statewide power generation by water using power generation combinations in the region and assume the region will produce that same relative percent in 2050;
- ii. Percent of forecasted statewide population growth in region from 2020 to 2050;
- iii. Do not plan for any additional energy being produced in the region.

The Council recommended that the water plan include water needs to address both the percent of energy and percent of population approaches.

7) Water Plan Schedule and Shared Resources

The PC updated Council on the next steps for drafting the water plan. Sections 1 -5 were submitted to EPD on Aug 15th and EPD comments are being addressed. We're about 85 % complete in producing the revised draft and will get back to plan drafting and management practices subcommittees and discuss the revised versions. The main comments were: (1) shorten some sections; (2) getting consistency between regions; (3) adding lessons learned and overall findings in a more concise manner. A preliminary rough draft of Sections 6-8 which we handed out today has been completed but needs more work. We purposefully left these Sections more general to honor council process and we now have the detail after today's meeting and finalization of management practices.

As discussed earlier today we will stay close to the original schedule for plan completion but will move our next meeting to February to allow a little more time for shared resource discussions and polishing the plan.

Council should plan for a meeting following public comment probably in July for CM 11 and meetings for reviewing and, if warranted, incorporation of information from the Bi-state stakeholder committee on salt water intrusion. Perhaps 1 meeting in October (CM12) and 1 in December/January (CM13).

CM: If information is available earlier we should come back sooner if necessary.

Shared Resources – In regard to shared resources we primarily need to deal with surface water quality and quantity. We formed subcommittee(s) to work on that issue. CDM has taken the first cut on analysis of how consumptive use looks at each node. We've submitted to other PCs to look at. Based on net consumption, this will help frame the role that region's management practices needs to play in addressing the gap. For instance, there are four regions that use water upstream of the Kings Ferry gap (though the Oconee region's use is small). Take Altamaha for instance – their management practices portfolio needs to come up with enough "water yield" to close the gap at Claxton and then combine with Savannah Upper Ogeechee, Upper Oconee and Coastal to make sure the entire portfolio can close the surface water gap. We will need to go through a modeling effort to see how that works in order to be as quantitative as possible. We've submitted the approach and are trying to meet with other PCs in early January and then shared resources Council subcommittee in mid-January.

8) Local Elected Official Comments

There were no local elected official comments.

9) Public Comments

Chandra Brown, Ogeechee Riverkeeper, thanked Council for their service in this process. I know it can be arduous and challenging so appreciate time and effort you are spending. We have been following the water planning process through volunteers and honorary board members and have attended several meetings of the different councils. The Ogeechee River is in four different Council boundaries. I'm here today because one of our volunteers let us know about a potential management practice coming out of Savannah Upper Ogeechee that the Coastal region might want to be aware. They may be considering direct ground water augmentation of surface water flows at a rate up to 20 million gallons (MG)/day from 20 wells to pump into Ogeechee River to deal with the gap at Eden node. If this is done from shallow groundwater it will impact baseflow and

will not be effective. If it is from deeper sources it could affecting other communities that use the aquifer as water supply.

I want to complement you on one of your management practices which helps meet dual needs. Looking at the use of wetlands as water quality tool and water quantity tool is a good idea. 1 acre of wetlands can store up to 1 MG of rainwater and slowly release water into rivers and streams and serves as baseflow. 270,000 acres of wetlands have been lost in the Ogeechee Basin. By looking at restoration activities we could see additional return flows during low flow periods and it is not going to be as expensive of a management practice and allows communities to use groundwater for drinking water. Our members are here as resources and are watching how the plans come together. We are able to provide information as you need it.

CM: I know we considered the idea of direct groundwater augmentation to surface water and found that it was not a good idea for our region. We need to weigh in on the discussion in the upstream council.

CM: Another point that our council has discussed previously is that the regions have been put together geographically but we don't have a clear vehicle for the entire watershed. There is no one set group outside of Riverkeepers that is looking at various aspects of all shared resources. We have a need for that so we understand the relationship between councils and we might want to work closer together and this should be discussed at the shared resource meeting.

EPD - In regard to the flow augmentation discussion I believe the management practice is to use groundwater as an alternate source to surface water as opposed to pumping groundwater directly to the stream. I don't recall Savannah Upper Ogeechee talking about running a pipe into the river.

Chandra - the message I got yesterday was flow augmentation.

PC: We will help get complete information on this in the coming weeks.

10) Wrap-up and What to Expect Next Meeting

The Council tentatively agreed to hold the next meeting in Richmond Hill on February 16th, 2011. The PC explained that the purpose of the next Council meeting is to review and approve the draft Plan for submittal to EPD. The meeting was adjourned.

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| Coastal Georgia Regional Water Council – Council Members Attendance List Coastal Georgia Council Members | | 12/15/2010 |
|---|--------------------|-------------------|
| 1 | Dennis G. Baxter | |
| 2 | Fred G. Blicht | |
| 3 | Chris Blocker | X |
| 4 | Kay W. Cantrell | X |
| 5 | Frank E. Feild | X |
| 6 | Rick Gardner | X |
| 7 | John F. Godbee | X |
| 8 | William K. Guthrie | |
| 9 | Duane Harris | X |
| 10 | Bill Hatcher | X |
| 11 | Cecily Hill | |
| 12 | Don Hogan | |
| 13 | Eric Johnson | |
| 14 | Michelle L. Liotta | X |
| 15 | Reginald S Loper | |
| 16 | John D. McIver | |
| 17 | Michael J. Melton | X |
| 18 | Randal Morris | X |
| 19 | Phil Odom | X |
| 20 | Keith F. Post | |
| 21 | Tom Ratcliffe | X |
| 22 | Tony Sammons | X |
| 23 | Mark V. Smith | X |
| 24 | Larry M. Stuber | |
| 25 | James Thomas | |
| 26 | Benjamin Thompson | X |
| 27 | Bryan Thompson | |
| 28 | Horace Waller | |
| 29 | Marky Waters | |
| 30 | Roger A Weaver | X |

Total **16**

Coastal Georgia Regional Water Council - Public Attendance List

| | Public Attendee | 12/15/2010 | Representing |
|----|------------------------|-------------------|--|
| 1 | Paul E. Baker | X | GA Irrigation Association |
| 2 | Brad Baugh | X | SACE |
| 3 | Chandra Brown | X | Ogeechee Riverkeeper |
| 4 | Deatre Denion | X | DCA |
| 5 | Todd Faircloth | X | GA Farm Bureau |
| 6 | Joel Fleming | X | GA DNR - WRD Fisheries |
| 7 | Dennis Hutton | X | Chatham County - Savannah MPC |
| 8 | Christi Lambert | X | The Nature Conservancy |
| 9 | Rahn Milligan | X | GSWCC |
| 10 | Chris Petersen | X | Septic Contractors |
| 11 | Jeff Rickets | X | Ft Stewart Growth Mgmt Partnership |
| 12 | Charles Sexton | X | BJWSA-SRBAC |
| 13 | Donna Shea | X | Skidaway Audubon |
| 14 | Bryan Snow | X | Georgia Forestry Commission |
| 15 | Tas Smith | X | GA Farm Bureau |
| 16 | Stanley Thomas | X | DPW Fort Stewart |
| 17 | Merrill Varn | X | St. Mary's River Management Commission |
| 18 | Sonny Timmerman | X | Liberty County Planning Commissioner |