

Memorandum

To: Coastal Georgia Regional Water Planning Council

From: Rick Brown and Katherine Zitsch, CDM

Date: 3/1/11

Subject: Council Meeting 10 - Summary

This memorandum provides the meeting summary of the Coastal Georgia Regional Water Planning Council Meeting 10 (CM10), held on February 16, 2011 at Richmond Hill City Center, in Richmond Hill, Georgia.

1) Welcome and Introductions/Recap CM9/Approve Agenda/Approve CM9 Summary

Chairman Ben Thompson called the meeting to order and welcomed the Council members and visitors. Chairman Thompson recognized Mike Melton with the City of Richmond Hill who, in turn, welcomed the Council to Richmond Hill.

Chairman Thompson asked Council members if they had comments on the agenda. The agenda was approved by consensus. Chairman Thompson asked Council members if they had comments on the CM9 meeting summary. The CM9 meeting summary was approved by consensus.

The Planning Contractor (PC) provided a recap of CM9 and highlighted the Council's major accomplishments over the last two years. The PC noted that the Clean Water Act Section 319 grant application for Horsepen Creek has been forwarded to EPD and the PC thanked Council member Roger Weaver for helping "champion" the project, and Chairman Thompson, EPD and Council for helping move this application forward. If the grant is approved it will be the first implementation step coming from the water planning process.

The PC then discussed the next steps in the Regional Water Planning process and provided an overview of the schedule through the end of 2011. The following key dates and activities were noted:

- The goal for today's meeting is to obtain Council's approval to forward the Regional Water Plan (Plan) to the Georgia Environmental Protection Division (EPD) with the recommendation that the Plan be posted to the State Water Plan

website for public comment. The PC emphasized that there are still some minor wording and grammar changes that need to be made and that there are a few factual items to double check in the Plan. In addition, it is likely that some substantive comments will come out of today's discussion. The PC recommended the following process for completing the draft plan: the PC will make redline changes to the current Plan draft (February 9, 2011) and send these changes to full Council in the next two-three weeks. If Council does not have any changes to the redline changes then they will be accepted and the Plan will be forwarded to EPD. If significant issues remain then it may be necessary to schedule another full Council meeting. The Council generally agreed with this recommended process.

- The PC noted the Plan is due to EPD no later than May 2nd and that formal public comment is scheduled to begin on May 9th and will last 45 days.
- The PC mentioned that there are provisions for one additional Council meeting following public comment. This meeting will likely occur in July and will focus on helping Council address public comment and to finalize the Plan for submittal to EPD for final action. EPD Director Allen Barnes plans to act on the Regional Water Plan by September 30, 2011. Director Barnes can either: 1) Approve the Plan; 2) Approve the Plan with conditions; or 3) Develop an approvable Plan internally.

Council Member (CM): Will EPD review the Plan prior to public comment and will that review be shared with Council?

PC: EPD has completed two formal reviews of the Plan (Sections 1-5 in August and Sections 6-8 in October). We are not expecting a formal review but will coordinate with EPD to make sure we do not have any major issues.

CM: After we submit the Plan to EPD will there be any changes that would occur prior to going to public comment? If so, I think it is critical that the any changes be approved by Council prior to going to public comment.

PC: We will make sure we keep lines of communication open and if any changes are suggested/provided the PC will make sure they are reviewed and approved by Council.

CM: I want to make sure we communicate to EPD and Director Barnes that currently we have a pretty broad range of management practices to deal with current and future water supply needs that have historically been served primarily with groundwater. This range of practices could be narrowed down if substantive recommendations come out of the Bi-state discussions regarding salt water intrusion in the Savannah-Hilton Head area. If this occurs in the next several months I think all of us would like to see Council have an

opportunity to work on refining the current range of management practices and try to define more specific and implementable solution(s).

PC: Based on Council direction from the last several meetings we have added language that addresses the above points and suggestions from Council to EPD.

CM: I understand that we have discussed this and included some language in the Plan but I want to make sure it is clear that we want to have a full Council meeting to address significant findings from the salt water intrusion stakeholder process.

PC: The PC noted the language that was discussed in CM 9 can be found in Section 6.2 of the Plan.

The Council then had a detailed discussion as to whether to reference a specific date by which the Council would reconvene to consider findings that might affect the management practices and recommendations in the current Plan. After considerable discussion it was agreed that having a specific date was less important than communicating the following substantive message:

- i. Council members have devoted significant time and energy to the planning process
- ii. Council members possess considerable expertise and have developed significant knowledge regarding regional water resource issues and challenges
- iii. The Coastal Council is uniquely qualified to help refine management practices and to facilitate implementation strategies

It was agreed that Council would revisit this topic prior to adjourning the meeting.

2) Overview of Regional Water Plan

The PC opened this portion of the agenda by asking Council to think about the 3 most significant issues and/or findings that you believe need to be included in the Plan. The PC asked the Council to think about this during the review of the Plan and write down their thoughts on a 3X5 card. This information will be used to help refine current plan language and to help guide the emphasis/major points to highlight in the Executive Summary of the Plan.

The PC proceeded with a section by section overview of the contents of the Regional Water Plan. The PC mentioned that a very preliminary draft of the Plan Executive Summary was provided to the Plan Drafting and Management Practices subcommittee but that today's meeting will likely provide valuable information for the Executive

Summary and therefore a revised version will be developed and ultimately sent to Council for review and approval via electronic mail.

The PC then noted that as previously mentioned the Regional Water Plan will undergo formal public comment and that there are also several Plan supplemental documents that will be made available on the State Water Plan website but these documents will not undergo formal public comment. The PC noted that there are 6 supplemental materials and that Council has reviewed over the last two years. The supplemental materials will be sent to Council in final format within the next month and if there are any comments or concerns we can address them over the coming months. A list of the Plan's supplemental materials is provided below:

1. Public Outreach Technical Memorandum, which includes local government advisory body contacts, and the Georgia Association of County Commissioners and Georgia Municipal Association contacts
2. Vision and Goals Technical Memorandum
3. Water/Wastewater Forecasting Technical Memorandum
4. Gap Analysis Technical Memorandum
5. Management Practices Selection Process Technical Memorandum
6. Plans Considered for Selecting Management Practices Technical Memorandum

CM: I think it is important that we reference these materials in the Executive Summary. The materials contain a significant amount of valuable information and people should be made aware of this.

The PC mentioned that one of the most important things that Council can do is to review the summary boxes that appear at the beginning of each of the Plan's sections. These boxes contain an overview of the section and should succinctly highlight the key take away messages for each section. If Council members have any suggested changes please provide them today or send us an email.

The PC highlighted Section 1 noting that the section introduces Council, Council procedures, the planning process, and presents the vision and goals for the region. Right now when you read the vision and goals statements, it sounds like the Council has full authority to implement and manage resources. We may need to include a statement that Council understands that they are not typically the implementing water resource entity. Perhaps something to the effect of the Coastal Water Council recognizes that they are not

the primary entity implementing solutions presented in the Plan, however the vision and goals are intended to reflect the policy considerations for those entities.

CM: Several Council members indicated that they like the way it reads now and would not recommend a change.

Section 2 goes through the history and geography of the area, highlighting surface water and groundwater resources, and general characteristics of the regions.

Section 3 introduces the current major water uses in the regions and then describes the resource assessments that were used to determine the available surface and groundwater and current water quality conditions. This section is where we introduce any current resource constraints and begin to discuss some of the technical information regarding regional water use. It was noted that we'd like to improve some of the graphics such as the assimilative capacity figures, but are not sure if we'll be able to get shape files. We also will include the Savannah and Brunswick Harbor model results if available. This section also includes information about the nutrient models and we're working with EPD on how that is presented. We deal with nutrients qualitatively, recognizing nutrient standards are likely going to be proposed in the near future. As Council, we make the point that the challenge regarding any future nutrient standards shouldn't be taken on solely by point source discharges, but that non-point source management practices will also be needed to improve water quality.

CM: I've learned that we have saltwater intrusion in our groundwater, and in our surface water in our estuaries, this salt water is important for estuary health and this should be noted in more detail. If I recall correctly the presentation from Coastal Resource Division stressed the importance that the "gradient of salinity" from ocean salinity concentrations to fresh water inflows from tributary rivers. We need to make sure the Plan reflects the importance that fresh water river flows play in sustaining this gradient and the species that depend on these ecosystem conditions.

PC: We can add this concept perhaps on page 3-9. We will look back at some of the information from the Coastal Resource Division presentation regarding the "gradient of salinity" that creates the unique eco-system in the estuary.

CM: Now that you mention it I am just looking through the report trying to find information on streamflows. Didn't we establish some minimum streamflow objectives?

PC: EPD utilized the monthly 7Q10 in the resource assessments and then what we did was add a general management practices regarding monitoring river flows to sustain estuary conditions.

CM: I think we should include something in Section 3 to elaborate on these points; at least a reference.

PC - Finally, in regard to Section 3 we have a map and some summary information on the Total Maximum Daily Load listed stream segments. We didn't list all impaired segments but they are in supplemental documents and we probably need to clean this up a make these points a little more clear.

Section 4 has the most changes since you last reviewed the preliminary draft in September/October. Originally this section was a little long and based on feedback we got from Council and EPD, we shortened the section and added some additional summary information, but we did not make any major substantive changes. Specifically, you will note there is more information on the Water Stewardship Act and how demand reduction was incorporated into our forecast. A little more information on the baseline and alternate forecasts was added, and the information on the regional thermoelectric forecast was added based on direction from Council in CM 9.

CM: In Table 4-3 we captured language that explains the alternate forecast based on specific criteria we've identified. I think we are still missing one point and we want to note that the forecast method originally proposed is assuming water use for production unit/per employee and this ties the forecasting model with employment growth and increased resource needs. I would tend to say something that the historical model used for employment growth is what was used to predicate the base industrial forecast numbers but because of potentially higher industrial growth and proximity to transportation network, we have prepared an alternate industrial growth forecast that is not predicated on historical trends. Our alternate forecast is based on assumptions not strictly tied to employment growth.

CM: I know we have had significant comments and thoughts on how to improve the industrial water forecast and remember that our forecast period didn't include Durango water use. Just because Durango is just outside of review period does not mean this information should not be included as a factor in our forecast and I think we have done that.

CM: Again my point is that assuming that water use per production unit remains the same is not the only assumption we should include for this region. As a Council, we're looking at something other than the historic consumption and employment model for projecting needs.

The PC then highlighted the final part of Section 4 by providing an overview of the total forecasting pie charts. Please note that the information is total withdrawals which is a

little misleading in regarding to energy water use, so the footnote on energy talks about consumption being much less than what is withdrawn.

CM: It seems odd that thermoelectric discharge is described as “wastewater”. Perhaps a note just explaining it is a return to surface water.

EPD: Technically, I believe it is defined as non contact cooling water, but that maybe overly technical.

CM: Perhaps we should add “return flow” to header and change footnote to: “The remainder is wastewater/return flow to surface water”.

Section 5 is where the Plan presents the comparison of available resource capacity and future need and we begin describing major challenges. In the summary box for Section 5, are we sending the right message about the challenges? Do we need to add discussion about non -point source into the summary box? We mention Savannah River Harbor TMDL, but maybe a little more on significant non-point sources may also be needed? Also we may want to flip the groundwater statement – regionally we have sufficient supply, but in areas we have gaps.

CM: Yes those are good suggestions.

CM: Another point about wastewater – if you change terminology, will we need to change growth in wastewater flows through 2050?

PC: We don’t think so because we don’t think it included thermoelectric in these forecasts, but will double-check.

CM: Our Plan should address how we intend to track demand and implement conservation. How are we seeing positive effects? Need to point to future section to help the reader, especially those concerned most about conservation efforts.

PC: Good point and see Section 8, page 8-2 present benchmarks for progress and how you would assess the water use and monitor trends in water use.

CM: A reference here would help the reader understand that conservation efforts have been/are intended to be addressed.

The PC then spent time going over two new and important figures. Figure 5-1 shows the groundwater forecasts and brackets potential use scenarios. It shows what might happen based on the concept of uncertainty in the Red and Yellow zones and reflects potential scenarios based on no reduction in pumping to complete removal of groundwater as a source of water supply.

Figure 5-2 presents the concept of duration and frequency of surface water gap. The PC noted the highest flow gap might not be longest duration gap and therefore not the largest gap volume.

CM: As Council, we have to address the fact that this is complicated and we need to design solutions to some of these difficult problems.

CM: I am still concerned about the idea of pumping groundwater directly into surface water to augment flows.

PC: We've heard that loud and clear and it is not included as a management practice for this Council.

PC: The PC then noted a few points from the water resource assessments. We have sufficient water supplies to meet demand on a regional basis. We've captured the importance of coordinating with Florida and South Carolina. It's not an inexhaustible supply and how we capture this point is critical. We should continue to look at sustainable yield of the aquifer and this is a very important issue for the Suwannee-Satilla region and that Council has interfaced with the Suwannee River Management District in Florida. Coastal Council should note that the Suwannee-Satilla region has smaller rivers and limited surface water which means that they are very dependent on groundwater.

The final thing you should note is Figure 5-4 which is the most recent way that we try to deal with water quality challenges with some level of specificity but without facility level reference. We've summarized results by watershed so we try to give you a sense geographically about where our water quality challenges are, and what some of the solutions might be for those facilities. We also should point out/emphasize that Brunswick Harbor dissolved oxygen levels are "at assimilative capacity" which means increases in discharges or new discharges will face challenges due to higher treatment requirements .

The PC then summarized the content of Section 6. Section 6 presents the Councils list of management practices for water supply and water quality. The information in the Table 6.1 comes from the list of management practices that was approved by Council at CM9. We have changed the format to align with the plan template that was developed by EPD.

CM: According to Figure 4-1 in Chapter 4, we're going to double population. In subsequent tables for industrial water supply we add 35 mgd. So water supply increases in the tables go up? Where I'm having trouble is taking that growth and trying to figure out how we're going to meet those demands. I'm sure it's in here, but I'm hoping when you put together the Executive Summary you can explain it so it's easier to find. How do

we meet the growth of 35 mgd in industrial sector and 62 mgd in population over next 50 years?

PC: Good point. The way we've handled it is through the list of practices in Table 6-1. We don't however take each practice and complete specific amounts of water supply yield for that practice. We say a, b, c and d will be used to address that 96 mgd, but we don't talk about creating a certain amount per practice. That's the work for the future. I know many of us would like to go future but at this time we have agreed that a "tool kit" type approach, where we list a full range of practices, is most appropriate until the outcome of other discussions is available.

In Section 6.2, look at where we talk about ongoing parallel processes that this Council is looking to and in particular look closely at paragraphs 1 and 2 on page 6-2.

CM: I understand all that. My point is that I would like the general challenges and approaches to be more succinctly presented.

CM: I see we have some references to the State of Florida and water quality and nutrient loads. Should we reference other initiatives/uncertainties we are aware of?

PC: We have tried to do that in Sections 7 and 8 so look at the introductions to those sections. In Section 6 we are trying to reference just the processes that may affect our management practices.

CM: I suggest we include this information on other processes at the beginning of the Executive Summary.

CM: I am looking at the language now about the Council meeting again before the Plan is finalized. The big question is how do we position this Council to address implementation challenges?

CM: I think this Plan will be obsolete the day it's adopted. We just need to notify the stakeholders and EPD that's what we think is happening here from the groundwater perspective and TMDL for Savannah Harbor.

CM: But we are identifying our surface water and other resource gaps and we do have a framework of management practices for addressing these challenges so I think obsolete is a strong term.

CM: I agree that was a little strong. My point is that we need to ask to keep this same forum in place. I think the general language here in the Plan is fine but perhaps we need to adopt a motion or resolution and elevate this to EPD management and other political

leaders. We should ask to be funded or at least keep going for next 24 months, which gives us some structure to keep going.

CM: Is there anything that keeps us from proposing an amendment to the existing Plan? There is nothing that prevents this Council from proposing amendment 1 to its current Plan. Perhaps we can continue our efforts and whatever comes out of bi-state discussion can be captured in a synopsis of significant issues. Council, if it continues, could then update the Plan.

CM: We could make this part of recommendations to the state as part of Section 7.

CM: In any case we need to connect this up in the Executive Summary. Section 6, Section 8 and page 82- bottom of benchmarks. Maybe something like: "The role/selection of these management practices for addressing current gaps and future forecasted needs in the gap areas requires additional data from the bi-state saltwater intrusion stakeholder process between Georgia and South Carolina - evaluate if implementable management practices emerge from stakeholder process, determine quantity of water supply yielded by management practices, determine implementation roles for cost sharing and infrastructure constructions, design and implement infrastructure needs".

CM: Either way I think adding some type of action of this Council outside of the Plan is needed that addresses the role of this Council and the recommendation to continue through February 2012. This is vital to make sure our efforts are not wasted. We need to use these facts as a means to address our concerns to Director Barnes and the legislature.

CM: I agree we need to recognize that our Council is different than other Councils. We have an established Regional Commission, a Comprehensive Plan, and bi-state negotiations. There is a need to point out the uniqueness of this Council that gives reasons why we would continue. We are also the only Council looking at the estuaries.

CM: I would like to see this Council formalized as part of the planning process for the future. This fits well with the concept of the Coastal Regional Commission.

CM: These points also need to be in Section 7.4 Recommendations to the State and in the Executive Summary.

CM: Let's take this topic up at the end of today and decide the action by this Council, outside of the Plan, regarding asking legislators and state leaders to allow us to continue down the road.

The PC then presented an overview of Section 7 which focuses on implementation of water management practices. The second paragraph talks about uncertainty in planning

in general. We may need to adjust a couple of dates because they might be a little too aggressive and make sure this tracks well based on the direction Council just provided.

Costs generally show that in many cases it will take substantial resources to implement these solutions. It will involve a substantial capital investment. But costs are general and should not be taken literally as they are very general planning level cost estimates. There are broad assumptions in many of the estimates. For instance, if looking at a multi-jurisdictional groundwater solution, the big cost will be determined by the distance the water needs to travel, not the well or treatment.

The PC then outlined Section 8 which lays out a process for monitoring how the region is progressing to meeting its long-term water resource needs.

CM: If this is not funded and we are not around I just don't see how you will be able to meet any benchmarks.

CM: Looking at recommendations to the state. Do we have any established process for identifying water conservation techniques and strategies are part of this Plan?

PC: Yes, it is found in Table 6-1. Recommendations to the state are more intended to address the question: "What do we want the state to do with the Plan".

CM: In thinking about today's discussion there are so many dedicated and intelligent people that have contributed to the Plan and there is no acknowledgement that lists Council members and this should be added along with the PC, EPD, and other contributors.

CM: In regard to the Executive Summary, in my judgment the Executive Summary should indicate that we have the resources to meet our forecasted needs through 2050 and the toolbox approach seems reasonable. Chapter 6 has 86 items in the toolbox. In the Executive Summary, we need to summarize the main strategies. I see some basic themes:

- Conservation
- New wells
- Increase surface water storage
- Interbasin transfer

Whatever the practical stuff is, that is what we'll be doing in the future.

The PC then turned the discussion over to the Chair and Council.

Chair: We have had a good overview of the Plan and have worked very hard over the last two years. At this point our PC has indicated that they can make the changes we discussed and the question we have before us is: Pending some adjustments made today, are we prepared to have this Plan submitted to EPD? Are we comfortable with the Plan?

CM: Will we have a chance to see a redline showing the changes we discussed?

PC: Yes

CM: Will Council have an ability to review the Executive Summary.

PC: Yes

CM: The Georgia Wildlife Resources and Coastal Resources Divisions should be added to recommendations to the state.

CM: Are there any questions we haven't asked that other Councils have asked? Are there major issues we have missed?

PC: The Altamaha Council has asked about the amount of groundwater development along Coast and whether that would impact the resource in there region? There have been issues related to the Lower Flint area in terms of gap. Some councils have topics that we haven't had to deal with but I cannot think of any other items that you may have overlooked.

Chair: At this point I think I want to ask Council if we have consensus among Council to approve the Plan for submittal to EPD based on the comments and discussion today. Do we have consensus by Council to approve the Plan and have the PC to finalize comments received today, send the redline Council, and then provided there are no issues, send the Plan to EPD for public comment? The Coastal Plan was approved unanimously by consensus!

Chair: Now regarding a potential motion or resolution regarding continuation of the Council. I have heard that the Council wants me to take the first shot at a resolution and draft some letters to the Governor, Lieutenant Governor, and Speaker.

CM: Yes we are in unanimous agreement to proceed along those lines.

3) Local Elected Official Comments

There were no local elected official comments

4) Public Comments

There were no public comments.

5) Wrap-up and What to Expect Next Meeting

The Council tentatively agreed to hold the next meeting in Richmond Hill in July 2011.

Coastal Georgia Regional Water Council
 Council Members Attendance List

Coastal Georgia Council Members		2/16/2011
1	Dennis G. Baxter	
2	Fred G. Blich	
3	Chris Blocker	X
4	Kay W. Cantrell	X
5	Frank E. Feild	X
6	Rick Gardner	X
7	John F. Godbee	
8	William K. Guthrie	X
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	X
16	John D. McIver	X
17	Michael J. Melton	X
18	Randal Morris	X
19	Phil Odom	X
20	Keith F. Post	X
21	Tom Ratcliffe	X
22	Tony Sammons	X
23	Mark V. Smith	X
24	Larry M. Stuber	X
25	James Thomas	
26	Benjamin Thompson	X
27	Bryan Thompson	
28	Horace Waller	
29	Marky Waters	X
30	Roger A Weaver	X

Total 21

Coastal Georgia Regional Water Council
Public Attendance List

	Public Attendee	12/16/2011	Representing
1	Deatre Denion	X	DCA
2	Joel Fleming	X	GA DNR - WRD Fisheries
3	Bobby Hadden	X	RMA/SNF
4	Brent Hanson	X	SNF Holding Company/Riceboro
5	Russ St. John	X	Complete Water
6	Rahn Milligan	X	GSWCC
7	Michael B. Phillips	X	Rincon City Manager
8	Bryan Snow	X	Georgia Forestry Commission
9	Tommy Smoak	X	Well Drillers Association
10	Sonny Timmerman	X	Liberty County Planning Commissioner

Total **10**