

Memorandum

To: Suwannee-Satilla Regional Water Planning Council

From: Rick Brown and Brian Keel, CDM

Date: 06/17/10

Subject: Council Meeting 6 - Summary

This memorandum provides the meeting summary of the Suwannee-Satilla Regional Water Planning Council Meeting 6 (CM6), held on June 17, 2010 at Valdosta Technical College.

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

Chair Darvin Eason called the meeting to order and asked Vice Chairman to welcome the Council. Vice Chairman Grady Thompson welcomed the Council and also asked for several dignitaries to offer welcoming remarks. Mr. David Bridges, President of Abraham Baldwin Agricultural College; Jim Carter, Tifton City Manager; and Donnie Smith, Director National Environmentally Sound Production Agriculture Laboratory (NESPAL)/Governor Perdue's Agricultural Liaison, each individually welcomed the Council and wished the Council success in their work.

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

The PC asked the Council for a motion to approve the CM 5 meeting summary; Scott Downing moved to accept the summary; Andy Stone seconded the motion. The Council unanimously approved the meeting summary.

Next Jackie Wilson moved to approve the CM 6 agenda and Mike Edgy seconded; Council unanimously approved the agenda.

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 an 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 location and possible dates for Council Meeting 7 were discussed. The PC suggested that Council members think about a location, date and a 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 activities that need to be completed in order to develop the 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 comments and make relevant changes if needed. Following public comment EPD is charged with making a final determination to approve the plan, approve the plan with conditions, or request revisions to the plan that would allow it to be approved.

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. The PC mentioned that if during today's discussions 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) Review Water and Waste Water Forecast

The PC then presented an overview and consolidated summary of the regional water and wastewater forecasts. The following items were presented and discussed:

Total regional water demands for municipal/publically supplied; municipal/domestic self supplied, industrial; and agricultural. Demands were presented for both surface and groundwater for each sector. The PC also presented the alternate industrial forecast which projects an additional 5 million gallons per day of industrial growth with that demand beginning in 2020 and increasing and growing until 2050. The Council believes more industrial growth will occur in the region than past trends show due to several factors including: relatively low cost of start up and operating costs; abundant groundwater supplies; and high quality of life on the region. Finally, the PC mentioned that the energy forecasts are continuing to be developed and will likely be presented on a more statewide versus regional level.

The PC then presented an example table, which summarized the above information for each of the demand sectors for each County in the region. There are 18 Counties within the Council's boundaries and to save time and reduce redundancy from the previous meeting each table was not reexamined. Rather the PC mentioned that data from each County can be viewed in the CM6 presentation available at the Council's website <http://www.suwanneesatilla.org/>.

The PC explained how Council's questions and concerns regarding the forecasts from CM5 have been addressed, including passive conservation, industrial wastewater return flow location, and sub-threshold industrial users.

Next, the PC presented an animated summary of bar charts for each County by each demand sector highlighting the source of supply, total and incremental demand. A CM member noted an error in Turner County for surface water municipally supplied. The error was noted and was only in the bar chart and will be corrected.

The following additional questions and comments were raised by Council.

CM: Fargo is the second largest town in Clinch County but their water use is not shown in the tables in the forecast report.

PC: The towns listed in this report come primarily from the USGS report that was used as the basis for estimating water use in gallons per capita per day (GPCD) for each county in the region. In the case of Clinch County, the numbers reported by USGS matched closely with available withdrawal data from EPD and the GPCD values appeared to be reasonable, so these values are applied to Fargo and all other towns in the County.

CM: Agricultural consumptive use is not 100 percent and may be resulting in a worse future condition estimate for demands.

PC: It was noted that the agricultural consumptive use numbers are the best estimate we have for this round of planning and this could be identified as a need to revising and improving the planning during the plan update. Additional research and data monitoring may be a good recommendation in the plan.

CM: It is important to note that agriculture is a major use of water in the region and consequently is the major contributor to the economic health of this region. Maintaining and sustaining agricultural water use is vital for the future of the region.

CM: Does the agricultural forecast use permitted numbers?

PC: Ag Permits were used in order to determine the GW% vs. SW % for each county. The AWDF does not use metered withdrawal data for several reasons:

1. SWCC meter data is not consistent in distribution and length of record. For example, only the Flint has "complete" metering that is 2-3 years old at most, while the Alapaha has none. Coastal only has one year of data. These are insufficient to use them for any statistical analysis of wet, normal, or dry year water use. There isn't enough data to even rate the years as such.

SWCC, in conjunction with the Georgia Forestry Commission, records volumes of water passing meters once per year. The earliest full-year measured volumes were for a limited number of metered fields in the Ichawaynotchaway Sub-basin in 2004. Each year after that, additional meters were added, sub-basin by sub-basin. More were added in Southwest Georgia; meters were installed in southeast Georgia; and most meters are recently being added in central Coastal Plain counties. Because of the installation schedule, the bulk of the meter readings have been made during drought-year field conditions. While many observations are included in the latest year's readings (2008), those represent drought driven irrigations. Because the data represents a limited time period, one that was

changing in location and number of meters, as well as one dominated by drought, we decided that it would be unsuitable as an estimate for annual irrigation depths for a 40-year forecast that must include wet and average as well as dry years.

2. The SWCC meter data is not associated with any crops. The ag forecasts were based on crop predictions, which obviously need water use associated with crops. SWCC data does not provide that. [Ask any farmer how much water he'll use next year, and he'll say it will depend on the crop and the weather].

CM: Does the Conservation Bill that was just signed into law have a "use it or lose" clause?

PC: It's not a "use it or lose it" clause, its purpose is to identify the status of existing permits.

Public Attendee: This law is not about anyone in agriculture losing their permit. It's to clean up the permit system.

CM: Are infiltration returns from agricultural use put back into the groundwater model? There's no true consumption of water because it ultimately gets back into the water table.

PC: That's true, water is not being lost, but it's more of an idea that this water is not going to be available for use again for a long time.

CM: Has there been any attempt to identify sub-threshold wells?

EPD: No, that would require extensive resources that EPD does not currently have and the results would probably have little impact on the forecast demands on our aquifers.

PC: We might also need to consider incorporating Florida demands into the groundwater model.

Ben Copeland volunteered to participate on the Management Practices Subcommittee.

4) Surface Water Availability Resource Assessment (RA)

The PC presented a summary of the surface water RA for both current and future conditions. First an overview of the river basins and local drainage areas (LDA) was provided. 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 flow graphics that illustrated the flow shortages to the flow regime and in some cases demand shortages, which are shortages to meeting forecasted future demands. Flow shortages to the flow regime are denoted as “gaps” in planning terms and the PC presented tables showing gaps at the Atkinson, Statenville, Jennings, and Pinetta nodes. Gaps are not expected at the Fargo and Gross nodes. **NOTE: Following the Council meeting it was learned that there will be some additional adjustments to the magnitude and duration of gaps at the planning nodes. This information will be used to update the information presented at CM 6 and will be presented to the Management Practices Subcommittee and Council and discussed at CM 7.**

The Council asked several clarifying questions about the flow regime and expressed some concern over the challenge of trying to maintain surface water flows during a critical dry period. The Council began discussing what options might be available to address these gaps. The PC mentioned that we will discuss management practices in more detail later in the day but in general the process will be to: explore the cause of gap including possible assumptions which may impact the presence of a gap; the nature of the gap in terms of magnitude, frequency, and duration. Once the gap is better understood a range of options can be considered including: water conservation, replacing surface water with groundwater, storing surface water at times of higher flows, and transfers as a few initial possibilities. It was noted that surface water storage will be a challenge due to the relatively flat topography in the area.

CM: Remember even though the region is relatively flat there are some areas in the northern portion of the region that have more topography and we might be able to consider surface storage there.

It was noted that this portion of the agenda ties in closely with management practices and that the discussion of options that can be used to address surface water gaps will be discussed more in the afternoon.

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 also highlighted areas where there are lake and estuary models and watershed/nutrient (phosphorous and nitrogen) models. It was noted that the dissolved oxygen results contain several somewhat conservative assumptions on the volume and concentration of effluent. Consequently local knowledge and follow up from Council will be needed. It was also emphasized that additional data collection can be an element of the selected management practices where information may need to be refined and/or improved.

Council members offered the following comments:

CM: In several locations where the maps show no or limited dissolved oxygen I am not aware of any issues associated with point source or non-point source issues.

PC: That will be very useful in helping use refine these model results based on local knowledge. Because some assumptions were made in these models, we as a Council need to determine where there really are dissolved oxygen problems that should be addressed with Management Practices.

CM: We need to make sure that the low dissolved oxygen takes into consideration the naturally low dissolved oxygen conditions that exist naturally in many of our streams.

PC: Good point and we have requested this information and hope that EPD will be able to provide this type of data.

CM: The coverage map for dissolved oxygen shows the extent of modeling in red and then the results model show no dissolved oxygen reaches in red. This is misleading and the coverage map needs to be revised to show a different color.

PC: Agreed and we have made this request that the color on the overall coverage map be changed.

CM: Is there a trend to encourage more Land Application Systems especially since there is lower assimilative capacity?

EPD: There is no specific trend, it is a case by case determination based on technical analysis and sitting characteristics. However, Councils recommendations will be taken into consideration during any future permitting review/decisions.

CM: The maps on Phosphorus loading do not make sense. The areas of loading do not have high phosphorous containing soils. Could more information be provided?

PC: We will see if we can get more information on how the loading information was developed. At the same time please note that these maps are not suggesting "high" loadings, but rather just the estimated rates of loading.

The PC also presented information on future conditions modeling which included modeling of future permit capacity and summary maps comparing current and future conditions results based on the amount of dissolved oxygen available.

Finally the PC provide an summary of current surface water impairments based on the Total Maximum Daily Load (TMDL) Listed segments and noted that most impairments are related to dissolved oxygen and fecal coliform. However, there are several impairments for mercury in fish tissue as well. The PC mentioned that Council is not required to address TMDL segments but at a minimum need to include the status of TMDL implementation in the region. The Council may elect to recommend specific segments and actions that could be taken to address impairments. The PC then showed paired comparisons between TMDLs and low or no assimilative capacity and indicated that this comparison will help use identify real versus potential issues and help us learn more regarding if the cause is point or non-point source. It was mentioned that the next steps would be to have the management practices subcommittee perhaps prioritize the segments and then get into greater detail on the most important segments.

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.

CM: It is also important that we include discussion about Florida groundwater use. The future conditions do not increase Florida's ground water use and this may need to be included.

EPD: We intend to meet with Florida to have some discussions with them in the next few weeks to begin to engage them. Given our timing of the water plan we may not be able to get all the needed information but we want to start the dialogue and engage constructively with our neighbors to the south.

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.

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 Suwannee-Satilla 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. The initial potential coordination areas may include:

Surface water quality/quantity discussions with Coastal, Altamaha, and Lower Flint;
groundwater discussions with Altamaha, Coastal, and maybe Middle Ocmulgee. It was

agreed that if we do need to meet it is important that we define why we need to meet and what issue/problem we are trying to address.

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 and there was a report out from Council member Wesley Langdale on the activities of the Management Practices subcommittee. Wesley highlighted the topics that were discussed at the May 21 subcommittee meeting and he made several important points including:

- It is important that we all understand the demands and forecasts
- We need to do more to outreach to our local governmental and water/wastewater utilities
- Our management practices have to work for our region and must be able to be implemented without being a burden to our communities
- We need to make sure we consider our vision and goals for the region when we identify management practices
- It was agreed that the current list of practices should be reviewed by the entire Council and Wesley encouraged Council members to add to the list before we start working toward a short list of the best practices
- We need to develop a toolbox of suggestions without getting bogged down by details
- We need to represent Florida needs in our groundwater modeling.

It was noted that EPD is meeting with Florida representatives the last week of July to present data for Georgia and request their forecasted use.

CM: Will Florida be honest with us?

EPD: We are on good terms with the Suwannee and St. Johns Water Management Districts.

CM: We have the easiest job of any other Council in that we have a good feel for our issues. We need to remember that we're charged with developing a plan, not setting policy.

CM: We're representatives of our communities and we need to take this opportunity to tell EPD what we think and expect. We have to be careful putting off too much responsibility on agriculture and timber.

CM: The groundwater sustainable yield results we've seen are based on a 30-foot drawdown. Does Florida agree with this? If not we need to know immediately.

Council and the PC discussed the possibility of the PC producing a handout or slides to show a map and some high level information for the Council members to use in presenting the State Water Plan to members of their community.

Following Wesley's report out 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.

Next the Council had a guest presentation from Rich Batten with the Southern Georgia Regional Commission. Rich provided a summary of the TMDL process and highlighted how the TMDL process works, TMDL listed segments in the region, and some of the success stories / projects in the region.

CM: What corrective actions were taken to restore some of these waters to their intended uses?

Rich Batten: Primarily agricultural BMPs, including fencing to keep cows out of streams, high load pads, and different irrigation practices.

CM: Are you working on cleaning up Banks Lake?

Rich Batten: No, that's Federal property.

Brian Snow, Georgia Forestry Commission (GFC) also 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 about 96 percent and compliance with BMPs at about 99 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, which went from about 37% compliance in 2004 to about 75% compliance in 2009.

CM: Can you walk us through the sampling process?

Bryan Snow: We randomly pull Timber Tax forms for each County. In 2009 we looked at 49 sites in the Suwannee-Satilla Region that covered all 18 counties. These sites totaled approximately 7,000 acres and we found 99.8% of those acres were in compliance with Forestry BMPs.

CM: Do you have regulatory authority?

Bryan Snow: No, but we can refer cases to EPD or EPA.

CM: Can you cross dry streams?

Bryan Snow: As long as it's according to crossing regulations with required BMPs.

Bryan concluded by offering to provide Council with information developed any way they want to see it broken down. Frank Green, the Clean Water Coordinator with GFC made closing comments to Council and mentioned that one of the most important parts of their job is to provide good information and training to landowners and loggers.

Finally the PC provided a brief overview of water conservation management practices and highlight of the Water Stewardship Act (SB 370). It was mentioned that water conservation is a priority management practice for Council and the Water Conservation and Implementation Plan developed by EPD and the Water Stewardship Act are an effort to establish a strong conservation ethic in all Georgians and to help promote the efficient use of water in Georgia.

CM: How does this information affect our plan?

PC: We're not sure yet. This Act will likely affect some water providers in our Region and we should document whom it affects in our Plan.

CM: Were these conservation measures included in the forecasts like passive conservation fixtures?

PC: No, these are extra conservation measures.

CM: Will this impact horticulture?

PC: No, horticulture is exempt. This Act applies only to non-agricultural uses.

10) Water Plan Development

The PC provided a summary of the items discussed by the Plan Drafting subcommittee. The subcommittee met on May 21 and provided the following input on the initial plan sections:

- It was agreed that a shorter plan with technical appendices is the preferred approach. This will increase the likelihood that local officials and other stakeholders will read the plan.
- However, it is also essential that methods and assumptions be well document in the plan/appendices.
- The subcommittee provided several specific drafting recommendations and grammatical corrections.

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.

11) Local Elected Official Comments

There were no local elected official comments.

12) Public Comments

There was no public comment.

13) Wrap-up and What to Expect Next Meeting

The Council agreed to hold the next meeting in Waycross on August 19th, 2010.

14) Council Meeting 6 Evaluations

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

cc: Cliff Lewis, EPD

Suwannee-Satilla Regional Water Council
 Council Members Attendance List

Suwannee-Satilla Council Members		06/17/2010
1	Joseph L. Boyett	X
2	Earl Brice	
3	William L. Brim	
4	Hanson R. Carter	X
5	Carroll H. Coarsey	X
6	Ben Copeland	X
7	Scott Downing	X
8	Eugene Dyal	
9	Darvin Eason	X
10	Michael E. Edgy	X
11	Greg C. Evans	X
12	Greg Goggans	
13	Jim Hedges	
14	Alva Joseph Hopkins	X
15	Donald A. Johnson	X
16	John Wesley Langdale	X
17	Joe Lewis	X
18	R.R. Rusty McCall	X
19	Donald H. McCallum	X
20	Dan Raines	X
21	Scotty Raines	
22	S. Gordon Rogers	
23	Jay Shaw	
24	Frank G. Sisk	X
25	Miles A. Stone	X
26	Grady M. Thompson	X
27	Doyle Weltzbarker	X
28	James R. Willis	X
29	Jackie Wilson	X

Total 21

Suwannee-Satilla Regional Water Council
 Public Attendance List

Public Attendee		06/17/2010	Representing
1	Mike Allen	X	Lowndes County Utility Director
2	Rich Batten	X	South Georgia Regional Commission
3	Danna Bells	X	EPD/ Ag Permitting Unit
4	Ellen Comi	X	
5	Tammy Copage	X	EPD/ Ag Permitting Unit
6	Emily Davenport	X	City of Valdosta Stormwater Superintendent
7	David Ferrell	X	USDA NRCS
8	Brittney Foster	X	Packaging Corporation of America
9	Carl Gary	X	
10	Frank Green	X	GA Forestry Commission
11	Kerry Harrison	X	UGA Irrigation Specialist
12	David Mauldin	X	GA Farm Bureau
13	David Mainor	X	Adel, GA
14	Jerry Permenter	X	City of Adel
15	Tom Putnam	X	Langdale Industries
16	Bryan Snow	X	Georgia Forestry Commission
17	Bryan Tolar	X	GA Agribusiness Council
18	Jeremy Wixson	X	GA DNR Fisheries Management

Totals 18