



B&V Project 164139
B&V File C-1.4
September 29, 2010

To: Upper Flint Water Planning Council

From: Kristin Rowles, Black & Veatch and Steve Simpson, Black & Veatch

cc: Tim Cash, Assistant Branch Chief, GA EPD

Subject: Meeting Summary: Council Meeting 7 on September 24, 2010

The council meeting was held on September 24, 2010, at the Rock Ranch in The Rock, Georgia. The list of attendees is attached. In addition to these minutes, the presentations (slides) discussed in this meeting will be posted on the Upper Flint web portal (<http://www.upperflint.org/>). The public sign-in sheet is included as an attachment.

Welcome, Introductions, and Chairman's Discussion

Council Chair Donald Chase welcomed members and thanked everyone for attending. He provided an invocation to start the meeting. Next Chairman Chase reminded the group of the importance of keeping the council's vision and goals front and center in their minds as they proceed with their work.

Mayor Hayes Arnold (Thomaston) thanked everyone for attending. Adam Pugh of the Rock Ranch welcomed everyone, described the Rock Ranch, and showed a brief video about the ranch and its programs (www.therockranch.com).

Overview of GEFA Low-Interest Loan Programs

Chairman Chase welcomed local elected officials in attendance and gave the floor to Kevin Kelly of the Georgia Environmental Finance Authority (GEFA) to discuss state- and federally-funded grant programs administered by GEFA. This presentation was an additional to the meeting agenda. It was added by the Chairman because of the importance of funding issues to plan implementation. Two handouts were provided by Mr. Kelly (attached to the end of these meeting minutes). The handouts included the following information:

- Descriptions of four water infrastructure revolving loan programs and their estimated FY2011 available funding and interest rates, summary chart of historical loan execution, and GEFA loan statistics; and

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

- A comprehensive table of Georgia water and wastewater funding sources (both GEFA and non-GEFA administered programs), their purpose/applicability, website, and contact information.

Mr. Kelly started by recognizing that regional councils would be tasked with determining and selecting management practices that represent financial obligations on the part of local utilities and authorities and the information provided would help identify existing programs which should be considered to overcome financial obstacles. Key points made by Mr. Kelly are summarized below:

- GEFA administers four loan programs for water infrastructure development: Georgia Fund (state funds), Georgia Reservoir and Water Supply Fund (state fund), Clean Water State Revolving Fund (federal fund), and the Drinking Water State Revolving Fund (federal fund)
- In general, state funds are more flexible than federal funds in terms of the types of projects funded.
- State fund interest rates are tied to the state's credit rating.

Cliff Arnett stated that small communities are financially challenged in their ability to participate in loan programs and that GEFA should consider lower interest rates and/or loan forgiveness for those systems. Kevin Kelly explained that GEFA administers a Disadvantaged Community Program under the Drinking Water State Revolving Fund. This program has a low rates provision contingent upon the applicant meeting certain requirements. Some principal forgiveness was granted under the program with funds from the American Recovery and Reinvestment Act (ARRA); however, all of that funding has since been obligated. Kevin Kelly speculated that government assistance might be obtained to provide additional grant forgiveness in the future.

Terrell Hudson asked if GEFA had recently sold loans to raise money for the state general fund. Kevin Kelly responded in the affirmative and said that GEFA will remit back approximately \$288 million through the loan asset sales. Dick Morrow asked and Kevin Kelly confirmed that this money will not go back to fund GEFAs state funded loan programs.

Jim Reid asked if individuals are eligible for 319 grants. Tim Cash said no. These grants go to local governments and non-profits.

Dick Morrow asked if funding is available through GEFA for stream buffer acquisition and stressed that this would be an important management practice. Kevin Kelly stated that he did not know the answer to that question but would look into it further. Mr. Kelly did explain that in the past, land conservation projects have been funded using the Clean Water State Revolving Fund where they have shown a direct impact on improvement of water quality. He will check into the applicability of funding stream buffers.

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Next, Chairman Chase asked if anyone had any changes to summary for the last council meeting (in pre-meeting packet). There were no changes, and with no objections, the meeting summary was approved by consensus.

Chairman Chase next discussed the September 3rd joint meeting held in Griffin with Council leaders from the Middle Chattahoochee, Upper Flint, and Lower Flint-Ochlockonee Councils. Chairman Chase said discussion at the meeting focused on several topics, including:

- Minimum flow requirements established by the US Army Corps of Engineers below Woodruff Dam under the Revised Interim Operations Plan (RIOP),
- Need for more storage in the ACF Basin, and
- Implementation financing sources and structures.

Chairman Chase questioned how a reservoir might be financed and managed and mentioned the possibility of establishment of a water management authority. Chairman Chase urged the council members to consider this further and turned the discussion over to Dick Morrow who was also at the joint meeting. Dick Morrow stated that the teamwork thus far by the leadership of the three councils has been very positive. Mr. Morrow reiterated the concept of financing regional infrastructure projects through the establishment of a watershed authority or authorities. He stated that a revenue stream would be needed and suggested surcharge on utility bills throughout the region as one possible solution. Mr. Morrow also said that Richard Royal, chairman of the Lower Flint Ochlockonee Council, is pushing to extend the final adoption of the regional Water Development and Conservation Plans (WDCPs) beyond the current deadline of June 30, 2011.

Chairman Chase said that GAEPD Director Allen Barnes had toured his farm as a part of larger agricultural tour. Chase also reported on a meeting hosted by the Senate and House agricultural committee chairs was held in Macon on September 16th. Several Council members were there. Lamar Perlis reported on the meeting. He said that GAEPD Director Allen Barnes had addressed the meeting and noted that he is bound by the law. He also commented that models are not perfect. Perlis said that Barnes was asked for more time for the planning process at the meeting. Jack Holbrook also commented on the September 16th meeting. He said that GAEPD Director Barnes is aware of the Council's activities and recognizes that additional reservoir storage may be needed.

Chairman Chase said that at the September 16th meeting, a letter from the U.S. Fish and Wildlife Service was referred to. The letter states that the USFWS believes that the Flint is already overallocated. Chairman Chase noted his concern about this issue and plans to look into it further.

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Chairman Chase stated that the plans the Council submits will be met with resistance from the Georgia legislature. Chase said that there were several legislators at the September 16th meeting. Chase said that the Council's work is being watched by lawmakers and will be given scrutiny by the Legislature, and he believes this is good.

Chairman Chase emphasized that interregional coordination needs to continue. Kristin Rowles distributed information on a joint water council scheduled for October 6, 2010 in Macon. The meeting will include panel discussions on shared resource issues. She passed around a sign-up sheet for the meeting.

Donald Chase asked the Council members to look at the current schedule of milestones for the Water Development and Conservation Plan process, including as page 2 of the pre-meeting packet. Chairman Chase reserved his opinion and asked if anybody felt that the Council needed to ask the legislature to provide additional time beyond the current June 30, 2011 approval date. Dick Morrow said he thought the Council needed three more months. Cliff Arnett thought that more time was not needed. He said we do not gain anything by dragging the process out, and the process is designed to continue and be adaptive in future iterations. Dick Morrow said that Richard Royal (Lower Flint Ochlockonee) is concerned that the Legislature will act on the plans we give them, and if the plans are not as good as the could be, the Legislature will be acting on poor information. Donald Chase noted that the Council might not gain much by waiting and that no plan will be bullet proof.

Dick Morrow said that the Middle Chattahoochee Council has requested an extension of a year because they would like to wait for the planned update of the Chattahoochee River water control manual by the U.S. Army Corps of Engineers. Kristin said that this document was not due to be complete until mid-2012.

Chairman Chase noted that the Middle Chattahoochee Council is interested in influencing the revisions to the water control manual, and he hopes that the Middle Chattahoochee Council will keep the Upper Flint Council informed on this issue. He said that if they have a specific proposal, the Council will consider it.

Lamar Perlis asked how drastic an effect new information could have on the Council's plan. Steve Simpson explained that although not all the water quality assessment results were yet available, the Water Quality Committee had proceeded forward in developing management practices because enough information is known to begin making progress on issues we already know exist. While the water quality modeling may identify locations where we need to stress implementation of the selected practices, the practices chosen would be generally the same.

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Buddy Leger said that the Council should push ahead and finish the plan. Terrell Hudson said that the schedule provides opportunities for input. Donald Chase said that the Council would not oppose other Councils that were requesting an extension, but that in the meantime, the Council would push ahead and try to finish on time. Charles Rucks said that it was noted at the September 16th meeting that we would not have all the information that we need, but that we have to make the best decisions we can and move forward. Cliff Arnett said that we need to get the plan out to the public to gain their support. Dick Morrow agreed that the Council should press ahead. Raines Jordan asked about the likelihood of an extension of the process, and Donald said that there was a good chance. However, he said that in the meantime, the Council should press ahead and make the timeline work.

Cliff Arnett asked how long the Council members' terms lasted, and Steve Simpson replied three years.

Chairman Chase asked if anyone had any changes to the agenda. With no objections, the agenda was approved by consensus.

WDCP Review Committee – Report (Discussion of Sections 1-5)

Chairman Chase introduced the topic of draft sections 1 through 5 of the WDCP and stated that it was of the utmost importance for each Council member to read through the draft document previously distributed by Kristin Rowles. Kristin reviewed the outline of the document. The draft document was distributed to the plan review committee in August and revisions were made prior to the August 16, 2010 submittal of draft sections 1-5 to EPD. EPD has since commented on the document. Next steps in the process include addressing EPD comments, drafting sections 6 through 8, incorporating feedback received during this council meeting, and holding another plan review committee meeting prior to the next deliverable date of October 15, 2010.

Dick Morrow stated that some changes have occurred in the reported model results and that EPD comments were primarily editorial in nature. Mr. Morrow further stated that the plan review committee significantly reduced the page count of the original document. Kristin said that the document reflected the information available in August and that the next draft would reflect some new information. She said that EPD is asking for a document of about 40 pages in length. Cliff Arnett expressed concern that the page count constraint puts the plan at risk of missing key information. Dick Morrow agreed. Kristin recognized this concern and stated that the concern would need to be directed to EPD as the plan developed.

Kristin Rowles presented a PowerPoint summary of EPDs comments on draft sections 1-5. Lamar Perlis questioned if the EPD had any technical criticisms of the facts and figures presented in the draft. Kristin replied that a few comments on substance would be

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

addressed in the revisions. Kristin pointed to a comment made in Section 5 which stated that the Council should not necessarily depend on the Metro North Georgia District to negate the Montezuma gap. She said that this statement refers to the fact that the Metro North plan shows the gradual decrease in consumptive surface water demand in the Montezuma node through the planning horizon. The calculated decline in consumptive use is forecasted to be approximately 8.3 million gallons per day through 2050 for the Metro North Georgia District. While this decline would have some impact on the gap at Montezuma, it is anticipated that it would be small.

Cliff Arnett asked: if we cannot rely on the Metro North Georgia District to do their part in returning flow, then who can we depend on?

Arnett also explained that counties in the Metro North District, such as Gwinnett County, have worked to minimize interbasin transfers. Chairman Chase stated that 47 million gallons per day is transferred from the Chattahoochee Basin to the Ocmulgee which currently has plenty of water.

Lamar Perlis proposed that it may be prudent to list contingency scenarios should returns from the Metro District be significantly less than forecasted and/or reflect the uncertainty of the return numbers. Forecasted values are due to be revisited in the five year updates to the WDCP.

Dick Morrow discussed the fact that increased conversion from septic systems to centralized treatment is unlikely due to financial constraints, especially in rural counties. He said this might limit the increase in Metro District returns. Steve Simpson reminded the Council that the estimated percent septic values determined for each county were held constant through the planning horizon for all regions except the Metro District.

Lamar Perlis asked what the EPD comment in Section 5 referred to regarding Subarea 4 of the Floridan aquifer. Kristin Rowles responded that this was the region of the Upper Floridan aquifer in southwest Georgia assessed in the Dougherty Plain model. This region exhibits high surface water to groundwater interconnectivity. The comment simply requests that this area be more clearly defined.

Kristin asked that if any Council members (outside of the plan review committee) want to review the October 15th draft plan after the next set of edits to let her know. Cliff Arnett asked whether after the October 15th deliverable date for draft sections 1-8 to EPD there was a process by which edits would be made. Kristin said that changes could be made throughout the remainder of the planning process, and that many changes were still likely before the completion of the January draft plan. Chairman Chase asked that the draft sections 1-5 of the WDCP be approved for posting on the Council website, with the knowledge that the document is a draft that is still evolving and that this would not be the

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Council's last opportunity to change its content. With no objections, the draft WDCP was approved by consensus for posting on the Council website.

Water Quantity Committee Report and Management Practice Selection

Cliff Arnett, Water Quantity Committee Chair, presented the committee report. First, he thanked the committee members for their efforts. Cliff discussed the process the committee implemented to generate the recommendations in the "strawman" document found on pages 32-45 of the pre-meeting packet. The process included review of surface water availability resource assessment results, which were summarized in Cliff Arnett's presentation. He reviewed the results at Montezuma and Bainbridge. He noted that it was calculated that 162,223 acre-feet of storage would be needed to offset the gap at Bainbridge.

Raines Jordan asked if this volume corresponded to the future demand scenario. Steve Simpson confirmed that this volume does correspond to model conditions with future demands. Mr. Jordan asked what size reservoir this would be. Mr. Arnett stated that the size of the reservoir would be dependent on the topography of the site as a shallow reservoir would need a much greater surface area to achieve the target volume. Kristin noted that the calculated storage needed was an estimate of the useable storage required to offset the gap and that an actual reservoir would be larger to account for dead pool storage, evaporation, and other uses. As a point of reference, she said that the calculated amount for Bainbridge corresponded to a reservoir about half the size of West Point Lake. She said that the proposed Sprewell Bluff reservoir would have had 730,00 acre-feet of storage and the proposed Kinchafonee Reservoir would have had 125,000 acre feet of storage. Cliff Arnett added that off-stream storage was an option and that storage is a key alternative in addressing the gap.

Cliff Arnett next discussed management practice selection. For water conservation practices, he referred to the GAEPD guidance on conservation practice tiers. Tier 1 water conservation practices are those currently in place by statute, and Tier 2 are those which are expected in forthcoming rule-making. Tier 3 includes basic conservation which could be implemented but which is not required by law, and Tier 4 includes practices which go beyond the basic activities and should be used to address identified gaps. The recommends implementation of Tier 1 and 2 practices, and it supports the implementation of Tier 3 and 4 practices in the region through incentive programs.

Dick Morrow stated that the state Water Conservation Implementation Plan does not distinguish between practices that target consumptive versus non-consumptive uses of water. For example, he noted, the use of low flow fixtures could hinder the ability of the City of Griffin to return as much flow as possible to the river during dry months. Mr. Morrow suggested that the Council may want to specify consumptive versus non-

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

consumptive uses in the discussion of water conservation practices. Cliff Arnett noted the new fixture requirements were already in the law and out of the Council's hands.

Next, Mr. Arnett presented the agricultural water conservation recommendations. Raines Jordan asked if requirements for low flow protection already existed or if the committee developed those. Kristin noted that low flow requirements already apply to new permits. Mike Donnelly asked what the efficiency level of new irrigation systems is now. Jim Reid said that new systems are greater than 80% efficient. Mr. Reid noted that while many systems had been upgraded to this level of efficiency, those held by holding companies were not eligible for incentive funding and therefore were generally less efficient. They will be replaced with more efficient systems over time as the equipment is replaced. Jim Reid also commented that the high cost of diesel fuel is helping to shift irrigation toward more efficient equipment. Dick Morrow suggested that if the practice is self-correcting perhaps the '*should have*' in the language in the agricultural conservation benchmarks should be changed to '*will have*', and this suggestion was accepted.

The Council had no comments on Cliff Arnett's presentation of recommendations regarding agricultural irrigation suspension, agricultural withdrawal permitting, and agricultural metering.

Dick Morrow mentioned that accounts of natural low to no flow conditions have been observed during historic droughts in the lower Flint River and that the Lower Flint Council has concerns over what the resource assessment models are illustrating as a gap.

As the Council considered the recommendations for supply and flow augmentation, Raines Jordan asked whether it is wise to pump groundwater for augmentation if there is an interconnection between the aquifer and the surface water system. Chairman Chase said that the availability of groundwater would be site specific. Kristin Rowles said that the document noted that this option would require more study, especially of impacts on groundwater. Mr. Arnett said that the practice should not be ruled out and that the text included phrasing that the management practice be considered if possible and that further study is warranted. Kristin Rowles read this section of the water quantity strawman document from the pre-meeting packet (on page 42 of 64). Chairman Chase followed that Director Barnes and the state expressed interest in the practice of replacing surface water use with groundwater to best utilize resources and minimize potential instream impacts. Mr. Perlis suggested making the following change to the document:

The Council supports the replacement of surface water withdrawals in the region with groundwater withdrawals where ~~possible~~ feasible. The Council recognizes that environmental and financial factors may limit the implementation of this practice. However, the Council supports reducing pressure on in-stream flows through an emphasis on increased use of groundwater in the region – for new and existing withdrawals. ***The Council also recognizes the need and calls for further evaluation of the feasibility of this practice and its potential impacts on groundwater aquifers in the region.***

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Cliff Arnett advanced the discussion to aquifer storage and recovery (ASR) by stating that despite its limitations, this practice should not be taken off the table. Mr. Arnett explained that water pumped into the ground for storage would require a high level of treatment. This practice would require a high degree of capital investment and permitting challenges.

No comments were made regarding the recommendation to encourage further use of farm ponds as a management practice.

Cliff Arnett discussed the recommended statements regarding interbasin transfers (IBT) which read as follows:

- The Council does not endorse any specific proposals for an IBT at this time.
- However, the Council urges policymakers not to preclude IBT as an option for future water management in the region, as needed and following thorough scientific evaluation.

Dick Morrow expressed that in meetings he has had with state representatives and lobbyists, strong anti-interbasin transfer proponents are seeking to have the practice banned. Mr. Morrow expressed that the Council may want to consider a stronger stance in support of IBTs as they are an essential management tool and necessary in some cases. He said they require scientific evaluation. He noted that the City of Griffin is bisected by the divide between the Flint and Ocmulgee basins, and so, its water system creates an interbasin transfers. Hays Arnold expressed that the current recommended statement is as specific as the Council can make it at this point. Chairman Chase recognized that the recommended statement is watered down but, the Council does not need to take sides. The region could benefit from an IBT into the region. The Council considered the current wording of the recommendations:

The Council does not endorse such a proposal for an IBT at this time.

However, the Council urges policymakers not to preclude IBT as an option for future water management in the region, as needed and following thorough scientific evaluation.

Donald Chase suggested that the first sentence be changed to recognize that interbasin transfers are common, and they are an important management tool. Kristin suggested the following wording for the 1st sentence:

The Council recognizes that IBT s currently exist in the region and that IBTs will continue to be a valuable water management tool in the future.

The Council accepted this substitution. The second sentence will remain as written.

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Cliff Arnett discussed the management practice recommendation that new Land Application Systems (LAS) be used only as an option of last resort. Mr. Arnett pointed out that retrofitting existing land application facilities to point discharge facilities would be cost prohibitive and that the existing use of LAS in the region is limited and would contribute very little flow for instream augmentation.

Cliff Arnett presented the following recommendations regarding storage:

- To address the need for storage to augment low flows during dry periods, the Council recommends the creation of Study Commission to evaluate storage options within the Upper Flint region.
- The Commission's evaluation should assess potential locations, viability, cost, and implementation.

Raines Jordan asked if this commission would be at the state level. Cliff Arnett said that it most likely would. Mr. Jordan asked if a reservoir would apply for specific areas or for the entire region. Mr. Arnett replied that in the view of the committee the idea is general and a specific location is not recommended. Terrell Hudson pointed out that it would be much easier, due to topography and soils, that a reservoir be constructed in the upper part of the Flint Basin, as opposed to the lower part of the basin.

Dick Morrow returned to the subject of water conservation noting that practices that seek to conserve non-consumptive water use do not provide much benefit. Discussion followed. Kristin suggested that the document could be edited to state that the Council recognizes that conservation applied to consumptive water uses has a greater benefit than applied to uses which are non-consumptive. Raines Jordan said that he did not think that the Council should make a statement against conservation.

Dick Morrow explained that the City of Griffin's withdrawals typically occur in the wetter months when the non-depletable instream flow requirements allow greater withdrawal capability. This flow is stored in the City's off-stem reservoir. In the dry months, this withdrawal is not possible as often; however, return flows continue to be discharged (approximately 40% of the City's total return flows) to the Flint River. If the users supported by the City's central sewer system are subjected to increased conservation measures, the quantity of flow that could be returned to the Flint River would be reduced. In dry months this would reduce the amount of the stored, used, treated, and discharged water from returning to the Flint River. He said that Griffin currently provides 4 MGD of water in flows from its wastewater plant during the summer and that increased conservation would decrease this amount.

Cliff Arnett stated that the stored water could also be used for augmentation during low flow periods. Mr. Arnett stated that if we come out against conservation it would be bad.

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Chairman Chase added that the Council's vision and goals encourage conservation and would be uncomfortable making a statement against it.

Lamar Perlis stated that Dick's suggestion is something measurable and could be quantified. Hays Arnold commented that Mr. Morrow is correct and that Thomaston benefits from Griffin's contribution to flows, but he did not have a solution in how to address this without sounding anti-conservation.

Cliff Arnett questioned how the Council would implement a water conservation management practice that separated consumptive versus non-consumptive water users. Donald Chase stated that conserved water could be sold later. Dick Morrow replied that different rates and standards could be applied to customers having septic systems versus those hooked up to central sewer systems.

Donald Chase noted that the Council did not have a consensus on this issue and suggested that the issue be tabled and discussed further in committee.

Kristin asked the Council to consider the scope of the water quantity recommendations. Do they apply to the whole region? Council members confirmed that they do apply to the whole region and that it would be too difficult to try to apply different practices in different watersheds within the region.

Next, Kristin reviewed the three wording changes that had been made in the Council's discussion of the recommendations (in the agricultural water conservation benchmarks, in the flow augmentation from groundwater recommendation, and in the interbasin transfer recommendation). She asked the Council to consider approval of the recommendations for incorporation into the October 15 draft of the WDCP. Dick Morrow noted his objection regarding conservation targeted toward non-consumptive water use, but the Council noted its approval of the recommendations for the October 15th draft, while noting this objection for further discussion at the next Water Quantity Committee meeting.

Lunch

During lunch, Jeff Manley from the Rock Ranch told the Council more about the Rock Ranch and Chick-Fil-A. Hays Arnold told the Council about the City of Thomaston's efforts to upgrade its water infrastructure.

Water Quality Committee Report and Management Practice Selection

Raines Jordan, Water Quality Committee Chair, presented the committee report. Mr. Jordan stated that funding practices and programs to address water quality issues will be a problem given the economic climate therefore, the committee worked toward recommendations as opposed to mandates. He further stated that the purpose of this meeting is to gain feedback from the Council on these recommendations. Steve Simpson

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

added that additional model results are forthcoming including water quality for lakes and streams in the ACF Basin. These results are expected to be provided toward the end of the year, but results are not anticipated to change the recommended practices.

Steve Simpson briefly summarized the implications of USEPA's proposed nutrient standards for the waters of Florida. The Clean Water Act calls for states to establish water quality standards (qualitative or quantitative) based upon designated uses of the water. Environmental groups sued the state of Florida citing that the standards established were vague and ineffective. In November 2009, a federal consent decree required EPA to develop numeric nutrient standards for Florida's waters. EPA issued a Federal Register on 1/26/2010 with Water Quality Standards for the State of Florida's Lakes and Flowing Waters. Approximately 2,000 public comments were received by EPA with stakeholder concerns and comments regarding costs, scientific justification, and federal versus state jurisdiction. These included comments made by Georgia EPD. EPA promulgation of final criteria for Florida's lakes and flowing waters is set for October 15, 2010. The standards as currently proposed would directly affect Georgia because they would require Georgia EPD to issue more stringent discharge permits in the ACF basin to be able to meet proposed total nitrogen and total phosphorous limits of 0.824 mg/L and 0.043 mg/L, respectively, below the Jim Woodruff Lock and Dam.

Cliff Arnett commented that this would tighten discharge standard for point sources while nonpoint sources would continue to be largely unaddressed by regulation.

Raines Jordan next reviewed the water quality management practice recommendations. These recommendations are included in the water quality strawman document, which is included in the pre-meeting packet. Mr. Jordan suggested that the establishment of a water summit with agencies and stakeholders be organized to further the development of water quality issues and nonpoint source pollution. He also stated that for nonpoint source pollution programs a disparity exists in the regulatory implementation between well funded utilities and smaller utilities. Without enforcement, the programs fail to adequately protect water quality.

A list of existing best management practices (BMPs) and state programs were reviewed by the committee to aid in developing the list of recommended management practices. For example, the Council has reviewed a best management practice manual for water quality protection in dirt road construction and maintenance. Cliff Arnett asked what the Council might suggest for dirt roads given that no money is available to fund a program. Dick Morrow said that implementing dirt road BMPs would represent a monumental expense for counties. Raines Jordan agreed and stated perhaps with more awareness and better understanding, future implementation may be more readily adopted and or funded.

Cliff Arnett asked if all of the recommended management practices focused on education and encouragement or if more substantive recommendations were made. Steve Simpson

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

responded by stating that the committee used language to encourage and educate as opposed to require due to the lack of foreseeable funding for these programs, but all of the recommendations offer the potential to improve water quality.

Cliff Arnett stated that a baseline of water quality data needs to be established; without a baseline, no quantitative analysis exists to determine the status of non-degradation. Raines Jordan asked what that baseline might be. Mr. Arnett suggested recommending a watershed study. Dick Morrow expressed that you cannot manage what you cannot measure. Steve Simpson said that, along these lines, the committee had recommended the collection of more water quality data. Steve elaborated on what baseline information was available on water quality, including documentation of impaired stream reaches under the Clean Water Act 303(d)/305(b) list and corresponding Total Maximum Daily Load (TMDL) implementation plans. Mr. Arnett replied that TMDL implementation plans are largely just desktop studies as opposed to hands-on projects. Raines Jordan brought up the fact that the current water quality modeling being performed for the resource assessment will provide some estimates of baseline water quality data for nutrients.

Steve Simpson suggested the following change to the near-term water management practice recommendations:

Improve water quality monitoring to provide *a baseline of data from which informed decisions can be made in the future* ~~the data for water quality improvements in the future~~ (increased number of collection sites, increased monitoring frequency and parameters sampled).

Frank Keller expressed some concern that having these BMP manuals and books and encouraging use of them in the future would not be an effective strategy for some rural communities. Dick Morrow recognized the challenge for smaller systems to achieve enforcement and stated that the City of Griffin now holds its own departments to the same sedimentation and erosion control standards it holds general contractors, which was not always the case.

Terrell Hudson pointed to a program implemented in Dooly County where lesser used dirt roads were abandoned and subsequently reforested, thereby reducing their contribution of sediment to area waterways. Lamar Perlis questioned if transportation studies could be performed in other counties to develop a similar closure program. Jack Holbrook stated some existing funding mechanisms already in place for local transportation and dirt roads.

Other BMP manuals such as Georgia's Stormwater Management Manual were discussed. Dick Morrow stated that cities above a certain size are required to abide by the requirements in the manual while smaller utilities do not.

A question was raised regarding the meaning of the recommended near term water quality practice to increase stream buffer quality in the region. Steve Simpson stated that

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

the current regulations for stream buffers are based upon width as a simplified measure for regulatory purposes. The quality of the stream buffer is dependent on several factors including width, slope, and vegetative cover.

Dick Morrow started a discussion on funding management practices by introducing the idea of a water management district. Such a district could be funded through fees in billing rates, for example a per gallon surcharge. The funds received could then be used to finance infrastructure, buffers, and other management practices and programs. Mr. Morrow pointed to districts which are established in Arizona as an example. Cliff Arnett expressed that water law and management is drastically different in the west. Mr. Morrow pointed to water management districts established in the state of Florida as an example as well.

Mike Donnelly stated that the City of Americus started a stormwater fee to help finance their ongoing water quality management. Dick Morrow commented that a similar fee is established in the City of Griffin. Chairman Chase urged the Council that ideas and concepts on funding mechanisms need more thought. Mr. Morrow replied that he would rather see the council deal with these issues on their own rather than handing it over to the state.

The long-term recommended management practice was modified in discussion by the Council as follows:

Support increased funding for infrastructure improvements to provide improved ~~more consistent~~ water quality.

Raines Jordan stated that as these recommendations are adopted, the committee will adapt to the forthcoming modeling results and make modifications as necessary. Chairman Chase asked for approval of the recommendations in the water quality strawman for incorporation into the October 15th draft. The draft recommendations were approved for use in the October 15th draft by consensus.

Clean Water Act 319(h) Grant Opportunities

Steve Simpson led a brief discussion regarding competitive grant opportunities for available for nonpoint source control project from EPD through Federal funding. Steve explained that a formal application process is in place. Detailed information on the program is provided on page 56 of 64 of the pre-meeting packet.

Cliff Arnett asked the applicants would be responsible for paying the remainder of the 60/40 cost share split associated with the program, which was answered in the affirmative.

Groundwater Sustainable Yields Update

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Kristin Rowles updated the Council on revised groundwater use numbers presented and compared with the modeled sustainable yields of selected aquifers. A set of charts summarizing the results is included in the pre-meeting packet.

Kristin reviewed the metrics used in the groundwater assessment models and reviewed the results and use comparisons.

In the Dougherty Plain, average use numbers are above the sustainable yield. Dick Morrow asked if the Upper Floridan aquifer in the Dougherty Plain was out of water. Kristin Rowles clarified that the metric impacted in the Dougherty Plain model was a reduction in surface water baseflow. Impacts to aquifer levels were limited; drawdown of less than 5 feet was observed in the model results. Kristin noted that the results for this aquifer told a similar story to that indicated by the surface water availability model results at Bainbridge. Groundwater use impacts on surface water are demonstrated in both the surface and groundwater availability models.

For the Cretaceous aquifer, Kristin noted that use was at the sustainable yield limit now and would exceed it during the planning period. She said that the model for this aquifer was going to be recalibrated and the sustainable yield estimates were expected to change. The sustainable yield is likely to increase. She reminded the Council that the portion of the Cretaceous aquifer modeled for the assessment went as far west as halfway across Macon County, and therefore, did not include the whole of the Cretaceous aquifer in the planning region.

Kristin also reviewed results for the other modeled aquifers, which generally showed use below or within sustainable yield.

Cliff Arnett asked if the total sustainable yield values account for impacts associated with saltwater intrusion. This would affect sustainable yield availability in the coastal region. Kristin was not certain how saltwater intrusion impacts were addressed. The planning consultants can check into this question.

Conservation

Kristin Rowles distributed and discussed guidance information from EPD regarding water conservation. Kristin stated that the flow chart provided illustrates a process similar to what the Council has already used. She suggested that the committee review the guidance to be sure that they feel that their efforts to evaluate water conservation practices have been complete enough. For example, the Water Quantity committee might wish to review the conservation goals in the Water Conservation Implementation Plan another time. She reminded the Council that the Statewide Water Plan states that conservation should be a priority management practice in the regional plans.

WDCP Sections 6-8 Development

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Kristin Rowles discussed the table of contents and items to be included in sections 6 through 8 of the WDCP. The table of contents for the WDCP is included in the pre-meeting packet. The next steps in the WDCP development process will include preparation by the planning contractors of sections 6-8 and incorporation of Council and EPD comments into section 1-5. A plan review committee conference call for sections 1-8 will be held October 11th or 12th. The entire Council will be e-mailed sections 1-8 by Thursday, October 7th. If Council members outside of the plan review committee have comments, they should be sent directly to Kristin Rowles.

Wrap-up and Next Meeting

Chairman Chase commented on comment letters he has received regarding the use of 7Q10 as a metric in the surface water availability assessment. At this time, a scientifically defensible alternative is not available. Cliff Arnett commented that it would be fine to analyze other alternatives, but basing low flow requirements on the lowest unimpaired flow value would be impractical.

Chairman Chase asked that Kristin distribute an interbasin transfer report that he recently received to the Council members.

Council meeting 8 was schedule for Monday, November 15. The meeting will be held in Pike County.

Kristin distributed a meeting evaluation form. The Council meeting was adjourned.

Upper Flint Water Planning Council
Council Meeting 7
Meeting Date: September 24, 2010

B&V Project 164139
September 29, 2010

Attachment 1:

**Upper Flint Ochlockonee Water Planning Council
Council Meeting Attendance – September 24, 2010**

Council Members

Clifford Arnett

Hays Arnold

Mike Beres

Michael Bowens

Gene Brunson

Donald Chase (Chair)

Mike Donnelly

Harold Fallin

Eddie Freeman

Jack Holbrook

Terrell Hudson

Raines Jordan

Frank Keller

Buddy Leger

Dick Morrow

Lamar Perlis

Jim Reid

Charles Rucks

Bill Sawyer

Council Members Not In Attendance

Greg Barineau

Tommy Burnsed

William Culpepper

Beth English

George Hooks

Lynmore James

Brant Keller

Gary Powell

Randall Starling

Joel Wood

Planning Consultants

Mike Friedlander, B&V

Kristin Rowles, GWPPC

Steve Simpson, B&V

Mark Masters, GWPPC

Georgia EPD

Tim Cash, Assistant Branch Chief

Bill Morris

Georgia State Agencies

Luke Crosson, Georgia Soil and Water

Bert Earley, Georgia Forestry

Jimmy Evans, Georgia DNR

Renetta Hobson, Georgia DCA

Kevin Kelly, GEFA

Ken Murphee, Georgia Forestry