WATER COMMITTEE
SEPTEMBER 8, 2010
MINUTES

MEMBERS PRESENT:	**Pete Frisina, Chairman**
	James K "Chip" Conner, Vice Chairman
	Brian Cardoza
	Tony Parrott
ABSENT:	**Jack Krakeel**
NON-VOTING MEMBERS:	**David Jaeger**
STAFF PRESENT:	**Russell Ray**
GUEST:	**Stephen Hogan, PTCWASA**

The meeting was called to order by Chairman Pete Frisina at 8:00 A.M.

I. APPROVAL OF MINUTES FROM THE MEETING ON AUGUST 11, 2010.

Vice Chairman Chip Conner made the motion and Tony Parrott seconded, to approve the minutes from the meeting on August 11, 2010. There was no opposition.

II. LAKE MCINTOSH UPDATE.

David Jaeger reported the contractor has completed the under cut and they are back filling the select material. He showed these areas on the slides. He referenced a photo taken near the toe of the dam looking back upstream. It shows the existing raw water pump station, the mud mat (a lean concrete slab poured to provide a stable dry uniform base for the installation of the sixty inch diameter low level concrete pipe and concrete cradle. He said back at the pump station, there was an existing wing wall that extended out to control water into the pump station from the existing creek. That has actually been removed and that wall is then being replaced with a new higher wall that will act as a head wall for the pipe. There will be a sluice gate installed on the wall and then at the slab elevation at the pump station, there will be a controller for that sluice gate.

Mr. Jaeger explained that we have a project coming up that will be a modification of this pump station. We will take off the existing top slab, all the existing pumps and pipes, and raise the slab up above the hundred year elevation for the new reservoir and put in new pumping systems.

On the drawing Mr. Jaeger showed the inlet to the pipe where the gate is, the pump station, and inside the pump station there will be a valve that will control low level release from the reservoir. When the reservoir is below full pool, we still have to release downstream a minimum amount. He pointed out the valve that will control the amount released out of the lake. There will be a meter so the county can

continuously monitor how much is being released, so that we meet downstream release and don't exceed it. That flow will then come back into the sixty inch pipe and release downstream. The sixty inch pipe has multiple functions. During construction the creek will be routed back through it. Safe Dams requires that you have the ability to lower your reservoir by two thirds of the volume within a ten day period. Although, it is very unlikely, if the county had to lower it due to an emergency situation, they could open the gate and reduce the level of the reservoir fairly quickly. In essence, it is a drain pipe, but mostly it will be used to allow the low level flow to be released from the lake.

Mr. Jaeger went on to say that along the center line of the dam, there is a sand foundation drain that is put in that extends all the way down to the limits of the under cut. He showed a photograph of the contractor preparing that. As they bring it back up, they bring up the sand foundation drain as well. He showed another photo taken from the Coweta County side looking back across the dam footprint.

Mr. Jaeger stated that a local pilot at the airport nearby called and complained about our project to the State. He said we then had a visit from the EPD. Some of the things they asked us to do were to replace the liner on the diversion channel, some of the flows had deteriorated the liner; they added double row silt fence on both sides of the diversion channel, as well as where the creek crossings are; upstream in the lake bed, where we have borrow areas and waste areas, where the contractor has completed those operations, we are actually putting down temporary grassing now, and better defining where the water can leave those areas so it is filtered.

Mr. Jaeger guessed what happened was there is a pilot that flies out of Falcon Field, he does not know the whole story, he has not seen, nor heard the complaint; the pilot either did not know what we are doing, or did not like what we are doing. He made a call to the local jurisdictions that said the permitting was done through the State. A phone call was made to the State EPD, and we had an inspection visit. Mr. Jaeger said that he was expecting to eventually have an inspection because of the size of the project. He went on to say that we are beefing up the drawings a little bit, and getting the contractor to add some more erosion control measures.

Mr. Jaeger showed a drawing of the exterior concept of the pump station. The top slab will be raised about ten feet. The current pump station did not have an enclosure on it; it was exposed to the elements. The building will be consistent with the other pump stations the county has done over the years.

Mr. Parrott commented the air conditioning units will be on the back porch, also, the control for draining the lake. He said the foundation of the pump station was put in for this future construction so it did not have to be changed, other than making it higher. The reason it was not made higher to start with was because it was ground level and you could just walk up to it. Mr. Jaeger said the structure is approximately 30 X 25, in round numbers.

Mr. Jaeger explained that he is still working with the state to work out the requirement to provide double row type silt fence for the disturbed areas in the existing creeks. In a typical development, that is obviously a necessity. On a job like this, you will inundate these creeks eventually, we have stream buffer variances, and we are preserving the stream buffers as long as we can. It is not quite as practical to require, we would end up with miles of silt fence that serve minimal purpose. He said he has not fully convinced them of that yet, but he will see how it goes.

Mr. Parrott reported that the wetland projects are moving along quite well. They have 25% of the staking and layout done at the Danielly-Wagner site; this is the third site they have worked on. The Johnson site is 100% complete. As they finish at one site, they move on to the others. It has been almost seamless, the weather has really helped. Wetland work we have done with the other lake projects, occasionally a rain event would blow out most of the work and they had to start over. This has not happened with this project.

III. TOTAL ORGANIC CARBON UPDATE.

Mr. Jaeger reported we had a presentation with Kruger, the Acti Flow Carb system, they were wrapping up their on site presence last week. They ran their pilot at different chemical dosage rates. They started out by determining how much alum would be necessary for their flocculation process. They determined that 15 parts per million (ppm) seemed to be the optimum dose, which is around half of what the county currently doses. In addition to that, they then added the Powder Activated Carbon (PAC). They started out at 30 milligrams per liter and they were able to achieve 55% removal of Total Organic Carbons (TOC), 35% is the threshold that we are currently trying to meet. They well exceeded the threshold as well as what the county is currently doing. They ran that for a week, then they reduced the Powder Activated Carbon down to 20 milligrams per liter, and they got about 50% removal of TOC. The following week they reduced it down to 10 milligrams per liter and they got 42% TOC removal. At that point, they did go down to 5, they did not have all the data available from the 5 milligram per liter trials, but they felt that 10 was getting close to the border of where we wanted to be. The 42% reached the threshold, but it was a little close for comfort.

Mr. Jaeger went on to say that they are suggesting that in full operation we would be somewhere in the 15 milligrams per liter of PAC with 15 parts per million of alum. That would allow us to easily achieve the 35% removal. What they found in the testing was what we already suspected; Fayette County's raw water supply has a high percentage of dissolved organic carbon (DOC). A high percentage of the TOC is actually DOC. When you have it in a dissolved state, it makes it difficult to settle. We were basically settling as much as we could, but their process, in particular the Powder Activated Carbon allows them to absorb some of the DOC. We were able to achieve much better results.

Mr. Jaeger stated that the samples were sent to a UL lab in Indiana, they ran a seven day incubation period with a chlorination of the water and then tested for disinfection byproducts seven days later. The required maximum for THMS is 80 micrograms per liter; HAA5 is 60. These are the numbers we are trying to stay below. With the 30 milligrams per liter of PAC, they were at 37 and 35. As they reduced the PAC dose, they had similar results. It climbed a little bit when they got down to 10 micrograms per liter; they were at 50 and 45. Again, those are versus 80 and 60. What this is telling us, number one, they can address the TOC removal problem, which is our immediate concern. Then when we have the 2012 stage 2 disinfection byproduct kick in, which requires to meet these 80/60 guidelines at specific locations out in the distribution system, we feel that this technology will allow us to meet that as well. He said it was promising, it was not surprising. We felt they would be able to achieve this and they have shown that they can. They are currently in the process of preparing a proposal to us on what it would take to implement this system at both plants.

Mr. Jaeger stated at 10:00 today, the Orica MIEX pilot will be presented. They will provide us their results and go through a similar question and answer session. We expect them to perform equally well. Ultimately, he believes it is going to come down to how much is this going to cost to put it in, what are the operational costs, how well does it fit with the current plant process? Is it operator friendly? There are issues such as proprietary resins with the MIEX that we have to consider. We feel from a performance standpoint, both of them have performed well.

Chairman Frisina asked about the organic makeup of Fayette County's water, why is it that we have a high rate of dissolved organics. Mr. Jaeger replied, that in his mind, a lot of it has to do with how the raw water supply is set up for the county. We have large reservoirs that provide storage and settlement of suspended solids. Then we have on site storage reservoirs for raw water that they continue that same process. By the time it gets into the treatment train, many of the larger particles are already gone, they have settled out. The organics that are remaining are mostly dissolved. It is not that our numbers are high; our numbers are not high coming in. If they were high, it might be easier to achieve 35%. Our numbers are a high percentage of DOC.

Mr. Parrott explained that we can pump the water from Lake Horton to Crosstown and drop the TOC by 15%; just because we pumped it that far in the waterline. Once the water gets to Crosstown, you start with less TOC than you had when you started.

Chairman Frisina asked if this will help meet the 2012 changes. Mr. Jaeger said that we expect the MIEX will perform similar to the Acti Flow, if they are this good or better, they will be below the 80/60 threshold, based on a seven day life span (so to speak) in the distribution system. Mr. Parrott commented that we also have a

third choice which is GAC on the filters. We did this test in house and it also works. We still have three choices; it has to do with handling and cost.

Mr. Jaeger went on to say if you remove the Total Organic Carbons on the front end, you have less to create disinfection byproducts in the system after treatment. Achieving the short term goal helps achieve the long term goal.

Mr. Parrott said that they have a close idea of the operating costs after running the pilot, they know how much chemical they had to use; that information will be included in their proposal.

IV. STANDBY GENERATORS FOR EXISTING PUMP STATIONS.

Mr. Parrott explained that we have a raw pump station at Lake Horton and booster pump stations at Crabapple Tank and Ellis Road Tank. They do not have backup generation at any of these three locations. We would not necessarily need to look at putting backup generators in. We have backup generators at both plants that will run a majority of the plant functions at any time. We have 100% backup at South Fayette, and Crosstown is probably 75% off the generator. We could continue those as long as we did not run out of fuel. Basically, we have 10,000 gallons of diesel at Fleet, so we could use their fuel truck to maintain it.

Mr. Parrott went on to say that the booster pump stations and the Lake Horton pump station do not have backup generation. He proposed that we fix it so that we can plug in a generator at these three locations, not buy a generator. If we had a disaster, we could rent one or get one through GEMA; but have it set up so that all you have to do is plug it in. Basically it would cost $10,000 each to do the booster pump stations and $20,000.00 at Lake Horton. In most instances, you would not figure we would be without power long term. For the price of doing this, he thinks it would benefit us to have it sitting there, so that we could plug in a generator in any situation.

Mr. Parrott said the hook up would look similar to the outside plug in where you plug in the light on your house. We would already know what kind of connection we would need when we got the generator and we would know what size generator it needed to be. They would bring it on a skid, we could jockey the fuel in the same way we had already planned. Each one of these locations is not on the same power company. They should not all be out of power at the same time. Mr. Parrott said we do not have this capital improvement in the budget, so we need to recommend this budget adjustment to the Board.

Vice Chairman Conner made a motion to recommend to the Board of Commissioners to proceed with standby generator hookups for the raw water pump station at Lake Horton and the booster pump stations at the Crabapple tank and the Ellis Road tank. Brian Cardoza seconded and there was no opposition.

V. WATER BILL MAILING.

Mr. Parrott explained that we have various ways to pay your water bill, electronically, Check Free, and on line. A lot of our customers don't know they have that opportunity. He said he wants to mail out a bill in a green envelope with an insert explaining the choices. However, he cannot change the water bill and the water bill mailing without getting Board approval. It will cost about $600.00 more for a mailing with green envelopes and the insert. But, if we pick up more customers that paying electronically, it makes everything within the billing process at our end work smoother, also. This would be a one time mailing in a green envelope with an insert.

Vice Chairman Conner made a motion to recommend to the Board of Commissioners a proposal to send a one time mailing of the water bills in a green envelope that would include information on the different ways available to pay their water bills. Brian Cardoza seconded and there was no opposition.

Mr. Parrott also informed the Committee that one of the things with water conservation rules coming through the Metropolitan North Georgia Water Planning District is they want the water bill to actually show a graph of usage. As we are upgrading the billing system through Munis, we have an opportunity to do this for $3500.00. We will be redesigning the water bill in the next few months, so this will come back up. In changing the billing system we will be redesigning all the forms, the regular bill, the final bill, the cut off notice, and the receipt. We do 28,000 bills per month. Customers will continue to receive the paper bills even when they sign up for these other options at this time. Sometime in the future, more options will become available with the new utility billing programs.

There being no further business, Chairman Pete Frisina adjourned the meeting at 8:40 A.M.

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Peter A. Frisina

The foregoing minutes were approved at the regular Water Committee meeting on the 22nd day of September, 2010.

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Lisa Quick