WATER COMMITTEE
JULY 25, 2012
MINUTES

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

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

I. APPROVAL OF MINUTES FROM THE MEETING ON JULY 11, 2012.

Vice Chairman Chip Conner made the motion and Tony Parrott seconded, to approve the minutes from the meeting on July 11, 2012. There was no opposition.

II. LAKE MCINTOSH UPDATE.

David Jaeger explained that he had the pleasure last week of doing a presentation for the American Society of Civil Engineers South Metro Atlanta Region luncheon. He said they wanted to talk about Lake McIntosh and he prepared a slide presentation for them that gave them an overview of the Water System. He said this presentation is a broad overview of the Water System and a description of the reservoir project, from the beginning to where we are today in the construction.

Mr. Jaeger explained that the first slide gave the people at the presentation an idea where Fayette County is, what kind of population we have, and how we relate to the Metro Atlanta area. He said that he talked a little bit about water as a resource and that we pretty much take it for granted; however it is probably second only to air as far as what we need in the way of survival. Do without it for very long and you are in trouble, quickly. Given that water is such a valuable resource, he talked about how much we need it and the cost that we have to pay to get it. We assume an average daily consumption of about 100 gallons per day per person. That equates to 36,500 gallons per year per person. If you consider the average residential swimming pool is probably 15,000 to 20,000 gallons, we are talking about two swimming pools each, per year, for consumption. Fayette County's total production for the period of July 2010 to June 2011 was about 3 billion gallons. That gives you an idea of what we consume and how much the Water System produces.

Mr. Jaeger went on to say that he had his staff do a comparison on a per gallon basis for things that we consume on a day to day basis and compare it with how

much water cost. You can see how valuable water is as an asset. He showed a slide with this information listed. Starting at the top you pay $3800.00 per gallon for printer inkjet cartridge, which all of us use in our business; other things, Jack Daniels, coca cola, gasoline, etc. Water costs us about half a penny per gallon, not including sewer charges. He explained that this helps people who are not familiar with how we get our water understand what we consume and what the cost is to us. It is actually a very inexpensive, efficiently produced resource.

He went on to say that Fayette County Water System collects our water in reservoirs, we have pump stations at those reservoirs that pump the water to the treatment plants where it is treated and then pumped out into the distribution system. We have storage in the system to provide adequate supply during the day for the customers. The summary of the raw water supply shows that we have Lake Kedron, Lake Peachtree, Horton Creek Reservoir, Starr's Mill Pond and Lake McIntosh all as sources of raw water. Lake McIntosh, once it is on line will increase the raw water supply by about 34%, versus what we currently have.

Mr. Jaeger showed a slide with the different pump stations at the different reservoirs, they each have different architectural features. There are two treatment plants in the Water System, Crosstown is permitted at 13.5 MGD, and South Fayette recently has been upgraded to 9 MGD. He presented a slide that shows the typical flocculation settling, filtration style of the water plants. The distribution system, pumping the water from the plants, out into the network relies on the Loop Waterline. Initial sections of this installation were 16" diameter and the last sections were 30" diameter. We have a substantial backbone to the Water System that is provided by the Loop Waterline. Once we are out in the system, water is stored in the tanks and they range from a quarter of a million gallon tank in Peachtree City to the 2 million gallon pedestal tanks at Ellis Road, Hwy 92 and Crabapple Lane.

Mr. Jaeger explained that he then got into the discussion of the reservoir project. He presented an aerial shot taken from the north side looking south, after the bulk of the reservoir had been cleared. It gives you a good idea of the shape of the reservoir once it is full. He said that he provided some project statistics, the fact that it is on Line Creek which is the Fayette/Coweta County line. He explained that it is a Fayette County project, Coweta County is not participating in the project. The function of this reservoir is a drinking water supply storage source and is owned by the Fayette County Board of Commissioners. The total construction cost, including the pump station and other peripheral construction is about $15 million. The total project cost is around $21.5 million. Permitting is by the US Army Corp of Engineers, the Georgia Department of Natural Resources, permitted withdrawal is 10.4 MGD.

Mr. Jaeger stated that initial work that was done on the project was clearing; he said that he explained that the county actually had a timbering contract and the contractor paid the county for the right to harvest the marketable timber. That was

the first thing that was done on the project. He said that he explained the relationship between the reservoir and the golf course. He showed two slides that show the area that is cleared, how it abuts against the existing water hazard on two of the golf holes. When the lake is full, the reservoir will be adjacent to it and will inundate the water hazard that is there now. The water hazard will remain so that when the lake is down, it will play much like it does today. The next slide was an aerial view showing the relationship between Peachtree City and the reservoir, the water treatment plant and the close proximity between the reservoir and the water plant as far as moving water from the reservoir to the plant.

He went on to say that he then talked about the dam construction. He provided some statistics about the dam itself; the fact that it is an earthen dam, the dam height is 40 feet high from the bottom of the creek channel. It is about 900 feet long, total; it has 200 feet of that which is the concrete principle and emergency spillway. He said that he had described a little bit of the labyrinth design on the spillway. He also explained about the dam classification which is Category I or high hazard; regulated by the Safe Dams Program. Their criteria for the Category I being 25 feet minimum dam height, 100 acre feet of storage behind the dam in the reservoir and the fact that if there is a breach in the dam, there is the potential for loss of life downstream. That requires us to get review and permitting by the Safe Dams Program and comply with their designs standards.

Mr. Jaeger said that he then talked about the initial construction, the undercut and removal of poor sub grade materials at the dam footprint; the installation of the well points to draw down the ground water in order to do that work; and the diversion of Line Creek during that process. He showed more slides of the undercut and replacement of selected fill and it gives a good feeling for the overall area that was worked on during that operation. Once that was completed the construction of the surcharge pad took place. The reason for that is the need to pre-settle the subgrade so that when the concrete spillway is constructed on top of it, there is no differential settling. He then showed a slide of the completed surcharge pad up to the design height of the dam, 793. He said that he talked some about monitoring of that and then the removal of it for the construction of the spillway. He showed a slide with the initial stages of the spillway construction, which was the stilling basin and the downstream end of that, the under drain system, the piping that goes in there and the rebar placement for the lower slabs. He talked a little about the energy dissipation requirement or function of the stilling basin and the impact blocks that were built at the downstream end of the stilling basin.

The next slide showed the construction moving up into the upper basin, the upper slab, the stilling basin are complete in this shot; it also gives an aerial view of the relationship between the pump station and the spillway and the outline of the dam. Further into the construction much of the labyrinth wall is constructed, the rebar is installed for the last slab pour and the side walls of the spillway are probably 75% complete in this shot. He then showed the location for the maintenance bridge that will be placed over the spillway. The next photo shown was for the last pour of the

slab on July 9 and 10; the boom truck is pumping concrete down into the slab, about 1300 yards of concrete was placed during this pour. After the pour was completed, placement of burlap on the slab to control temperatures and cure time extended out so that you have uniform curing of the concrete. He then showed an aerial shot showing the completion of the slab and then showing the remaining section of labyrinth wall and the small sections of wing walls on the front end of the entrance to the spillway. Mr. Jaeger then showed a photo that was taken from one of the cranes on site. It shows a good perspective of the labyrinth walls. The next shot was taken from downstream looking back upstream; it gives the visual relationship between the top of the side walls and what will be the top of the dam versus the labyrinth walls, there is a 13 foot vertical difference between top of dam and the normal pool in the reservoir which is controlled by the labyrinth walls. The same thing is on the other side of the spillway. He also pointed out the outlet of the 60" pipe which allows us to maintain flow through the pipe during construction and then also provide our low flow release once the lake is full.

Mr. Jaeger stated that the last section of his presentation described the pump station project, upgrading the existing Line Creek withdrawal from 2 MGD to the 10.4 MGD lake withdrawal. He showed and aerial shot that showed the relationship between the pump station and the spillway and dam; the initial construction was to demolish the existing structure which was the 2 MGD pump station on Line Creek, all the equipment was removed, the top slab was demolished. After that demolition, side walls were raised up and the top of the slab was moved up 10 feet vertically. He then showed the new side walls poured up to the new elevation, with the architectural treatment on the formwork and the rebar installation for the new top slab, and then another shot was shown after the slab had been poured. He explained that the architectural characteristics of this pump house are a carriage house with some architectural features on the doors to make them look like carriage doors, although it is a solid steel door. Inside, electrical work is being completed, the electrical equipment is mostly installed and the pumps are now being installed. He said he was there yesterday and they are basically in place. There is still some bolting up to do on the discharge piping itself, but both pumps are in now and the check valves are also in.

The next shot showed the finished product, a rendering "so to speak" and the relationship of the dam with the reservoir, Falcon Field Airport, Peachtree City, the golf course and the surrounding communities. He said that there were about 25 people at the meeting, quite a few people from Peachtree City; it was an engineer's luncheon so a lot of them were there for continuing education credits. He said that he felt there was quite a bit of interest in the project, he had some good questions about it. It seemed to be well received.

Further discussion pertained to the benefits of labyrinth wall design for dam construction.

Mr. Krakeel asked about the construction of the cart path bridge that needs to be built by the golf course. Mr. Jaeger stated that they are just now beginning the renovation of the sewer line that is beneath that cart path. The last conversation he had with the golf course manager indicated that they were considering raising the path instead of putting in the bridge. The path has a dip in it, and they were going to put a bridge over that dip; now he thinks they are leaning towards just raising the path after they finish with the sewer work. The path would be above normal pool and it would not require a bridge. This is at golf hole number 10. Mr. Parrott stated that the County changed the emergency spillway for the 100 year storm. This is the reason we have park land; other than that there would not be any park land.

Mr. Krakeel asked how far we are from impoundment. Mr. Jaeger replied the contractor is telling him the end of August; they will be done with construction. Then we have to get Safe Dams to schedule their review and inspection, the Corp of Engineers would also have to sign off. At that point we can close the gate. Realistically it is a few months out before impoundment begins.

Mr. Krakeel asked if the golf course would be finished with their work when this starts or will that impact our ability to fill the reservoir. Mr. Jaeger said that he does not think this will impact it. They should be done with their work fairly quickly, and it will take quite a while for the water level to get up close to where that is.

Mr. Jaeger commented that he had some discussion with the engineer that is working on the sewer line for WASA. He asked that same question, whether they could stage the work from the reservoir. There is already a culvert there, but above the culvert there is a dip in the cart path which goes down below normal pool of the reservoir. He said they were going to bridge over that but they decided instead, just to demolish the path, raise the subgrade and then rebuild the path over it above the lake level. It would not need a bridge, and would be cheaper for them to do it that way.

Mr. Krakeel asked how far we are from the park contract. Mr. Jaeger stated that we got authorization from Peachtree City yesterday, approved plans for the land disturbance permit and the council approved the variance on the buffer setback on July 12. The work has been bid, we have a contract and the work has already started. Part of the contract includes building the docks and boat ramp. Mr. Parrott commented that the landscaping will be bid separately for the park. Instead of having the contractor that was building the park also do the landscaping and charge us extra, we are going to do it separate. He went on to say that Peachtree City had conditions that they wanted with the variance.

III. LAKE PEACHTREE DREDGING.

Mr. Jaeger reported that he has asked his environmental consultant in his proposal to initiate what is required to be submitted to the Corp of Engineers. He

said that he is waiting on a proposal. Depending on the submittals to the Corp that tells us whether or not we are exempt, then if we are not exempt, it will be an individual permit; that will extend the time that we can start the project. He said that he does not know if it will be next summer or not.

Mr. Parrott commented that Peachtree City is interested in doing a joint project, because they have interest in going up the stream in a couple of the channels. This will come up during this dredging project. They were interested in the Water System doing this, but it is not part of the lake and it is a separate job; if they want to do it, they will have to work out an intergovernmental agreement. He said that he does not mind bidding their project with ours and having the same contract as long as we have something for them to pay their share. One time before they did the channels separate. Once we drop the water level, everyone does a little work out there. He said that we will drop the water level a little bit and this will enable people to do repairs on their walls; it is a perfect time for them to work on them. We will leave the water up during the dredging and then drop the water level for people to do their repairs during this same project.

Mr. Krakeel asked if we need to have additional dialogue with Peachtree City, if we are in the process of having the environmental consultant begin to do the preliminary work for submittal. Mr. Jaeger stated that the last dialogue that he had was that the City would allow us to use Drake Field again. Mr. Krakeel said that he is talking about if there is an interest on the part of the City to also remove siltation from the upper branches or whatever the case may be, should we now have a discussion with them whether they want to proceed forward with that or do they want to make that part of our package, or do they want to go totally separate with their own environmental consultant.

Mr. Jaeger stated that this is a good point; this would provide them the opportunity to "piggy back" in on our environmental study and share the cost; if there is additional cost to do that. The study will look at impacts to the habitat, it looks for endangered species, and it looks for potential archaeological, historically significant things that might impact our work. Mr. Parrott added that we also have to test the silt to make sure that it is not a hazard for wherever we put it. Mr. Jaeger said the study evaluates the buffers around the lake from a State waters standpoint, how we will impact those going in and out, Drake Field, whether we can stay out of those buffers. The last time Drake Field was completely out of service. They built an under drain system of gravel and pipe, piled the dredging material on top of it, let the gravity de-water it, and then once it was dry enough, use conventional equipment to haul it off. Mr. Jaeger went on to say that the runoff created by the de-watering would go back in the lake; that would have to be looked at from an environmental impact viewpoint.

WATER USAGE

Mr. Parrott reported that the Water System customers have used a million and a half gallons a day more water so far this July than July a year ago.

FEDERAL UNREGULATED CONTAMINANTS MONITORING RULE

Mr. Parrott referenced a letter from Linda MacGregor from DNR notifying the Water System that we will have to do the Federal Unregulated Contaminants Monitoring Rule Round #3 (USMR3). Georgia EPD was going to do the testing for us as part of our lab testing contract. They are not certified to conduct this test for Round #3, we are going to have to find our own lab in order to comply with this.

Russell Ray explained that EPA routinely has to evaluate whether existing chemicals need to be added to the monitoring program. Through their studies on toxicity, they come up with ones they are going to look at. Once they make a decision about the list, then they tell the utilities what they have to monitor to see if they are there. Then, after that, they decide whether they are going to incorporate those into the routine monitoring list.

Mr. Parrott commented that the current monitoring list is over 100 different items, and they are looking at another 37. Mr. Ray stated that this monitoring needs to be done for 12 months. Whoever we contract with, they will send us sample bottles, they will run the analysis, and they actually enter the analysis data into an EPA data base. We simply have to go in and confirm that they have done it. Further discussion pertained to whether thresholds have already been set or if they will be set after this round of testing. Mr. Parrott stated Chromium thresholds have already been set.

There being no further business, Chairman Pete Frisina adjourned the meeting at 8:45 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 August, 2012.

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Lisa Speegle