

**MINUTES**  
**BROOKVILLE MUNICIPAL AUTHORITY**  
**Monday, November 2, 2015 @ 4:00 P.M.**

The Brookville Municipal Authority met in Council Chambers for a special presentation from Gwin, Dobson & Foreman on Wastewater Treatment Facility Upgrades on Monday, November 2, 2015 at 4:00 P.M. with the following in attendance:

**MEMBERS**

Bradley Miller  
David Love  
Robert Moss  
Sam McKinley

**STAFF**

Manager Dana D. Shick  
Accountant Kerry Swineford  
Commissioner Clyde Bullers  
Consultant Terry O'Neill  
Engineer Travis Long  
Recorder Christine Gunning

**VISITORS**

Patti Slaughter  
Andy Arnold  
Jim Balliet

**CALL TO ORDER:**

Chairman Bradley Miller called the meeting to order at 4:00 P.M.

**HISTORICAL INFORMATION:**

Engineer Travis Long stated the Municipal Authority's original primary treatment plant dates back to 1959. Engineer Travis Long stated it was upgraded to secondary treatment in 1984. Engineer Long stated plant components are 30 to 55 years old, and the typical life for a wastewater plant is 30 years. Engineer Travis Long reported there have been Rotating Biological Contactor (RBC) and other component failures. Engineer Travis Long stated hydraulic overloading and non-permitted bypassing of untreated sewage resulted in the Consent Order and Agreement.

**EXISTING PERMITTED PLANT FLOW & ORGANIC LOADING CONDITIONS:**

Engineer Travis Long stated the current wastewater treatment plant has a hydraulic capacity of 1.25 million gallons per day (MGD). Engineer Travis Long reported the current organic capacity is 2,188 pounds per day, the peak flow rate is 4.00 MGD (max hourly rate), the current average daily flow is .789 MGD, the peak wet weather flow is 10 to 15 MGD, and the peak-to-average ratio is 10:1. Engineer Travis Long stated wet weather flows are currently bypassed, and the wastewater plant does not have capacity for all system flow. Engineer Long stated either more plant capacity is needed, or I & I needs to be drastically reduced, or a combination of both of these things is needed.

**DESIGN ASSUMPTIONS:**

Engineer Travis Long stated in designing the new wastewater treatment facility, they want to provide the wet weather flow capacity that is needed, with a long range plan to curtail I & I. Engineer Long stated they will try to adjust hydraulic loadings to match current and projected flow conditions. Engineer Travis Long reported the wastewater treatment facility upgrades will allow for a maximum daily flow of 8.00 MGD, an

average daily flow of 1.50 MGD, and hydraulic components must be designed for a minimum of 12 MGD. Engineer Travis Long reported the upgrades should include UV disinfection for elimination of chlorine, aerobic sludge digestion, and process treatment systems to utilize nutrient removal.

**ACTIVATED SLUDGE PLANT UPGRADE AND EXPANSION WITH HYBRID BARDENPHO NUTRIENT REMOVAL PROCESS:**

Jim Balliet, Secretary and Facilities Planning Director at Gwin, Dobson & Foreman, stated they tried to choose what would work best for our system, and picked the Hybrid Bardenpho Nutrient Removal Process because it can handle a wide range of flows. Jim Balliet stated it will help us meet regulations in the future. Jim Balliet stated the Headworks are a critical component because it removes grit that can wear on our system. Jim Balliet stated they are proposing a 1 ½ million gallons per day plant, and we will bypass anything over 3 million gallons. Jim Balliet stated Altoona was the first to try this system, and it has worked very well. Jim Balliet stated this process will meet the DEP's requirement of minimum secondary treatment. Jim Balliet stated this is a really unique, novel idea that meets DEP's regulations. Vice-Chairman David Love asked Jim Balliet if an operator needs to be at the plant 24 hours a day. Jim Balliet stated an operator does not have to be there 24 hours a day, and a lot of things will happen automatically. Jim Balliet stated the only decision a worker will have to make is if they should put the other side on. Jim Balliet stated the step feed process is automatic. Jim Balliet stated we have to go from anaerobic to aerobic digesters. Jim Balliet stated, to get away from using chlorine, they now use a UV disinfection system which is more efficient when you have a wide range of flows.

**SCHEDULE:**

Engineer Travis Long reported the Water Quality Part Two Permit should be submitted by December 31, 2015, and the NPDES, E&S, and Chapter 105 Permits should be submitted in February of 2016. Engineer Travis Long reported, pending receipt of permits, the project can go out for bid in August of 2016. Engineer Travis Long reported bids should be received in October of 2016, the project should be awarded in November of 2016, construction should begin in February of 2017, and construction should be completed and an operations permit should be received in March of 2019. Engineer Travis Long stated we are well on track to meeting all of these deadlines. Jim Balliet stated DEP has until fall to review permits. Vice-Chairman David Love asked what the difference in operating costs would be at the new facility versus the existing facility. Jim Balliet stated in general, whenever a plant is upgraded, you can figure a 10% increase in operating costs. Jim Balliet stated the plant in Altoona is actually saving money on electricity for the blowers. Jim Balliet stated he would expect some increase in operating costs, but it will not be significant. Jim Balliet stated the new facility will provide a whole new level of treatment compared to what we are doing now.

**SUMMARY:**

Jim Balliet stated after the facility upgrade is complete, our wastewater treatment facility will be able to convey, receive, and treat system flows without untreated bypasses. Jim Balliet stated the facility upgrade will ensure we comply with current and future

regulations, and provide optimum flexibility in operations and operator interface. Jim Balliet stated the facility upgrade will enable us to achieve regulatory compliance, and removal from CO&A conditions and stipulated penalties. Engineer Travis Long stated this plan will meet the Authority's needs and provide the most flexibility.

**ADJOURNMENT:**

Gwin, Dobson & Foreman's presentation on Wastewater Treatment Facility Upgrades ended at 5:18 p.m.

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Administrative Manager