Commission Workshop
January 16, 2018
5:30 pm

This workshop is to discuss the city's wastewater treatment plant issues. Members present included Mayor Mortimer, Commissioner Chastain, Commissioner Nugent, Commissioner Waters and Commissioner Woods. Also present were City Attorney John Cooper, Sewer Department Supervisor Kyle Jerrels, City Manager Bob Milner and Sewer Department Operator Roger Slora.

Mayor Mortimer called the meeting to order at 5:30 pm and turned the workshop over to Mr. Milner. Mr. Milner introduced Gary Sneddon an engineer who has worked extensively with the wastewater treatment plant. Mr. Milner also introduced Greg Lang and Tim Norman from Mittauer & Associates. Mr. Sneddon addressed the commissioners regarding the wastewater treatment plant. The current permit needs to be addressed because the wastewater treatment plant we have now will not be able to meet the new nitrogen and phosphorus limits for Alligator Creek discharge. The State of Florida came out with requirements around 2013. The standard is based on the waterway that you discharge into. The new permit levels allow almost no pollutants to be discharged into a waterway. The Department of Environmental Protection has set a pollutant level that our wastewater treatment plant cannot possibly meet. We need to decide where we are going to put the wastewater effluent and then determine what type of treatment plant to build. There are some immediate repairs that need to be made to our existing wastewater treatment plant. The Alligator Creek outfall pipe has collapsed and the headwall is falling into the creek. These issues need to be fixed quickly or we won't be able to discharge into Alligator Creek at all. There are a number of diffusers that are popped off in the basins. They cannot be fixed until we can drain our tanks and we cannot drain our tanks until the hydraulic problems are fixed. Mr. Sneddon showed water samples that were cleaned using clarifiers. The internal parts of the clarifiers are falling into the tanks. One of those pieces sheared a pin on the drive causing the drive to be unable to spin. Mr. Jerrels was able to fix the drive so it is operational. The tanks hold 300,000 gallons of wastewater. They are trying to automate the system so that it will run at night to clarify the wastewater when usage is much lower. They are working on process control and equalization to create a nice steady state that will minimize sludge generation. If it were automated it would run at night and clarify the wastewater. Mr. Jerrels said that the HMIs for the control panels are going bad and cost $2,500 to replace. It is a little bit cheaper to hard wire that into the office. Mr. Sneddon said the HMIs cannot handle the outside weather conditions so hard wiring them into the office out of the elements is the best solution. It also allows Mr. Jerrels to monitor operations at the wastewater treatment plant on his cell phone. There are some longer-term issues with the plant. There is a lot of sand that comes into the plant through the sewer lines. Since the sewer lines have been cleaned the plant is taking on even more sand. Tanks have needed to be shut down and drained to clean the sand out of them. Return activated sludge pumps take the biology to the clarifier and eat the sludge. Whatever is left has to be disposed of. We are not using sludge drying beds

and we could use them to minimize sludge. The 500,000 gallon digester has been used to burn up a lot of sludge. It reduces the volume by approximately 50 percent of the sludge. Nitrogen and phosphorus removal facilities could be added to the existing plant to help meet the new standard. The plant runs about 650,000 gallons every day and about 300,000 gallons of that is infiltration or excess water getting into the sewer system. If we could eliminate the infiltration we would be treating 350,000 gallons each day instead of 650,000 and saving a significant amount of money. The treatment plant is half biologic treatment and half hydraulic treatment. If we could eliminate some of the water we could reduce the size of the pumps and we would have a lot more capacity in the tanks. We need to automate the lift stations. Mr. Jerrels said that one of the wastewater treatment plant's employees spends 4 hours per day Monday through Friday checking lift stations. If the system was automated the operator on call would be notified on their cell phone of any problems with a lift station. Mr. Jerrels explained that installing SCADA systems on the lift stations would free up a wastewater treatment operator to do other work rather than spending 4 hours a day, 5 days a week checking lift stations. This would save money in the long run. Mr. Sneddon said approximately 50 percent of the plant is automated. He also said that 2 inch water lines are causing water pressure problems for customers. Some of the smaller lines have been replaced but the rest of them need to be replaced soon. We need to get out of Alligator Creek. It would cost approximately $1,000,000 per year to run a facility to meet the required levels to continue dumping in Alligator Creek. Mr. Milner asked Mr. Jerrels for his closing statements. Mr. Jerrels said his job is to monitor spending and keep the plant in compliance with the Department of Environmental Protection and the Environmental Protection Agency. It is Mr. Jerrels opinion as a certified operator that it is in the best interest of the city to stop dumping in Alligator Creek. That will lower our testing requirements and cut back on operations. Mr. Milner said it would cost approximately $2,000,000 to get 5 to 10 more years of operation out of the current plant. The tanks are more than sufficient to meet our needs.

Mr. Milner opened the floor for questions from the commissioners. Mayor Mortimer asked about the current permit and if the time remaining was 3 and 1/2 years. Mr. Sneddon said the permit time frame is tied to the Edwards Bottomlands Wetland Restoration Project through the Suwannee River Water Management District. By July 1st we have to notify the Department of Environmental Protection if we intend to stop dumping in Alligator Creek. By April 1st of next year we have to give them a construction permit application letting them know what we are going to do. Commissioner Waters asked about the shaft that keeps breaking. Mr. Jerrels said it is a big gear with a chain that goes to a drive motor. It is deteriorating. If the clarifier is not working it throws everything in the plant off. Mr. Jerrels got a shaft with a sprocket welded to it to keep it in service. If the clarifier is drained so it can be repaired there are going to be spills out of the splitter box every day. Spills are reported to the Department of Environmental Protection. Once we have so many spills we will get a consent order. Mr. Sneddon said because of the sand in the pipes they cannot shut one of the clarifiers down to repair it. Commissioner Waters asked where the sand was coming from. Mr. Jerrels said it is mostly coming from holes in underground sewer lines. Commissioner Woods asked now that we have this updated data how quickly could we get grants to get these problems fixed. Mr. Norman said Mittauer will be submitting the grant report in March. It will probably take a year to get funding and design and

another year or more to complete. Mayor Mortimer asked if the commission had been talking to Mittauer about funding for these issues for some time now. Commissioner Woods said they have been. Commissioner Chastain asked if we should have another workshop before our next commission meeting so that Mittauer can address the commission with their findings. The workshop was set for Tuesday, February 6, 2018 at 5:30 pm. Commissioner Nugent asked if Mr. Sneddon would be in touch with Mittauer so they would both be on the same page. They agreed. Mayor Mortimer asked for Mittauer to provide documentation at the next meeting.

There being no further business, the meeting was adjourned at 6:34 pm.