

VERNON MYERS
MAYOR - COMMISSIONER

MARY LAWSON BROWN
VICE MAYOR - COMMISSIONER

ALLEGRA KITCHENS
COMMISSIONER

PHIL LEARY
COMMISSIONER

JAMES NORWOOD, JR.
COMMISSIONER



MICHAEL J. CZYMBOR
CITY MANAGER

BETSY JORDAN DRIGGERS
CITY CLERK

MATTHEW D. REYNOLDS
FINANCE DIRECTOR

GARY S. GETCHELL
CHIEF OF POLICE

MICHAEL LAMBERT
CHIEF FIRE DEPT.

DONALD E. HOLMES
CITY ATTORNEY

Regular meeting 2nd and 4th Thursdays each month at 6:00 p.m.

MINUTES

WWTP IMPROVEMENTS WORKSHOP

September 25, 2014

Proceedings of a called Workshop meeting of the City Commission of the City of Palatka, Florida, held on the 25th day of September, 2014.

PRESENT:

| | |
|--------------|---|
| Mayor | Vernon Myers |
| Commissioner | Mary Lawson Brown |
| Commissioner | Allegra Kitchens (Arrived at 4:40 p.m.) |
| Commissioner | Phil Leary |
| Commissioner | James Norwood, Jr. |

Also Present: City Manager Michael J. Czymbor; City Clerk Betsy Jordan Driggers; Finance Director Matt Reynolds; Police Chief Gary Getchell; Fire Chief Mike Lambert

CALL TO ORDER: Mayor Myers called the Workshop to order at 4:30 p.m. and read the following Workshop meeting call, which was dated September 19, 2014:

TO COMMISSIONERS: **MARY LAWSON BROWN, ALLEGRA KITCHENS, PHIL LEARY AND JAMES NORWOOD, Jr.:**

You are hereby notified that a Workshop Meeting of the Palatka City Commission is called to be held on Thursday, September 25, 2014, at the regular meeting place of the Palatka City Commission, Palatka City Hall, 201 N. 2nd Street, Palatka, Florida, to commence at 4:30 p.m.

The purpose of the workshop is to discuss proposed WWTP Improvements, the Ayres Associates Report on Alternatives Cost Analysis for the Sludge Treatment System, and a Letter of Intent to enter into negotiations with BCR Environmental Corp. for the installation and co-operation of a Biosolids Management Facility at the WWTP

/s/ Vernon Myers
Vernon Myers, MAYOR

The following commissioners acknowledged receipt of a copy of the foregoing notice of a workshop meeting on the 19th day of September, 2014.

/s/ Mary Lawson Brown
COMMISSIONER

/s/ Phil Leary
COMMISSIONER

/s/ James Norwood, Jr.
COMMISSIONER

/s/ Allegra Kitchens
COMMISSIONER

Mr. Czymbor said earlier in 2014 the Commission authorized a study to be made by Ayres Associates on alternatives for operation or replacement of the City's aging biosolids system.

AYRES ASSOCIATES' PRESENTATION ON ALTERNATIVES, COST AND FUNDING:

David Kemp, Ayres Associates, presented his report (filed). The Current WWT Plant was put into operation in 1985; there have been improvements made to the WWTP and aeration system. Today they are speaking of improvements to the sludge (biosolids) treatment system. The current system is 30 years old. These are preliminary estimates of costs on three alternatives.

Alternative A is to retrofit the existing Anaerobic Sludge Treatment System

Alternative B is to convert to a new Aerobic Sludge Treatment System

Alternative C is to convert to a new Chemical Sludge Treatment System.

Common to all alternatives is the retrofit of the existing Sludge Dewatering System

Discussion ensued on use of the existing dewatering system.

Mr. Kemp presented a large map depicting the current system. Currently sludge is piped in for treatment. Mr. Kemp took the path of treatment through the water system. It is filtered for reuse by the golf course or it goes into the river. The sludge comes through the sludge treatment system, is stabilized, and then goes to the belt press or sludge grinding beds. This is a gravity system. There are no chemicals involved; it is all biological. They take in three roll-off dumpsters per week. At times in the winter they may have four per week due to cooler weather. This goes to the landfill for burial.

Photos of the current anaerobic digesters and control building were shown. Mr. Kemp said it is designed to work on a methane gas system that is no longer operable.

Photos of the existing sludge dewatering system were shown.

Alternative A – retrofit existing anaerobic sludge treatment system – Mr. Kemp showed slides on primary components to be replaced. They included replacement of sludge return pumps and electrical/control systems to bring it back to the way it was supposed to operate when it was new. A slide was shown containing a list of the advantages and disadvantages of retrofitting the existing anaerobic sludge treatment system (filed). The disadvantage is a higher capital cost, less stability and the need for gas heating. There are hazards of gas handling and processing. Total capital cost of an anaerobic sludge treatment and dewatering retrofitting is \$3,585,000 with annual O & M costs of \$153,000.

Alternative B – New Aerobic Sludge Treatment System. They considered both a surface bridge or float mount aeration/mixer, or a mechanical blower/coarse bubble diffused air system. This requires several modifications. The blowers would be the same, but they would need a new blower building, transfer/pumping equipment, sludge return pumps, process piping and electrical/control systems. There is less capital cost than the aerobic system, easier start-up, and less odor. There would be a higher energy operational cost and there is no recoverable energy potential. Anaerobically digested sludge is preferable. The capital cost for a new aerobic treatment system and sludge dewatering system would be around \$3,007,000, with an annual O & M cost of \$213,000.

Mr. Kemp stated the aerobic system is the preferred system. He originally designed this system in the 1980's and there was more FDEP funding available for anaerobic systems. This has a benefit of taking as many solids as you can and taking it to the anaerobic pumps first, as opposed to having to treat the sludge first. This is more efficient for handling large volumes of sludge. There is a benefit to gas reclamation, and the generator burns natural or methane gas. It was state of the art at the time.

Alternative C – New Chemical Sludge Treatment System. Mr. Kemp said they looked at a BCR Environmental Proprietary CleanB™ System. This would require a new process equipment/buildings/structures, chemical storage facilities, transfer/plumbing equipment/piping modifications/sludge return pumps and electrical control systems. They will have to make more modifications. The BCR system has more flexibility in the treatment processes. This is innovative technology that has become available in the past 10 to 12 years. This is a chemical digester system. They combine 15% sodium chloride with 50% sulfuric acid to make Chlorine Dioxide, very safely inside the pipe itself, which is injected directly into the sludge. It kills everything in the sludge. It also helps to improve the de-waterability.

Advantages are less capital costs, smaller footprint for the actual facility, less processing components, faster stabilization process, less processing cost and less odor potential. Disadvantages are it's a proprietary sole-source process. There is some flexibility. There is no recoverable energy and on-site storage to consider. This is completely new and is not familiar to City personnel; that is not a big negative, but this is a completely new system. As to capital outlay, the cost is around \$3,157,500 for the BCR CleanB™ system and dewatering system, with annual O & M cost of \$164,000. This is an innovative and fairly simple system with a lot more "moving" parts. This won't cause job loss. It's not labor-intensive but it will require the same number of employees.

Mr. Kemp said common to all three alternatives is replacement of the belt press, polymer storage/feed system, dewatered sludge transfer conveyance system and electrical/control systems. A Cost Estimates Comparison was shown comparing 1) a sludge treatment system to 2) a sludge treatment and dewatering system. Annual O & M costs were spread over a 20-year period. There is less cost with the anaerobic system. O & M costs consider other treatment processes.

A slide was shown entitled Project Implementation System, showing that Alternative A would take 18 to 24 months; Alternative B would take 18 to 24 months; and Alternative C would take 15 to 18 months for design/permitting/construction. Retrofit of the existing sludge dewatering system, common to all alternatives, was included.

Funding alternatives that may be applicable were listed on a separate slide. Mr. Kemp said there is SRF "clean water" funding, Small Communities WW facilities grant programs, USDA Rural Development Grants, and CBIR Legislative Grants. Vice Mayor said the FLC has a loan program with a very competitive interest rate. Mr. Kemp said it would be worthwhile for the City to do an assessment of grants to determine what would be the best fit, and what it would take preparation wise and execution wise to go after those grants. Discussion ensued regarding State Legislative factors and funding possibilities.

BCR ENVIRONMENTAL PRESENTATION - Mr. Kemp said BCR approached the City several months ago asking if the City would consider its system. He has done some research on the system and Company, and has found BCR to be a reputable company. Other cities with this technology are very satisfied with it. This is a worthwhile consideration. Based on the capital analysis, it is a viable option.

Kevin Dunlap, BCR Environmental, said BCR has been around for around 12 years developing patents and regulatory approval. They are a Florida-based company. They manage organic waste. They have never had a regulatory violation or a lost-time incident. They have grown from 7 to almost 50 employees. BCR has 9 operations in North Florida. There is a lot of construction going on in central and south Florida, and are building regional compost facilities around Florida. They want to build one in NE Florida. BCR generally can save their clients capital and operating costs. They are tailored for the small municipality. Several of the projects are SRF funded.

Today they are talking about their CleanB™ Technology which produces class B sludge. They also help clients with transportation, final disposition and final use of material. They monitor performance and deliver chemicals to the facility. They have 100% client satisfaction. The CleanB™ system would be run by City staff. The composting facility would be operated by BCR and would require between 2 to 4 full time local employees. They want to lower cost as well as risk.

Slides were shown concerning recycling and reuse of organic waste, specific Florida issues addressed by BCR and long-term sustainable solutions for the St. Johns River Basin. Their products minimizes nutrient run-off. They process the material to deodorize and make class B sludge on site, manage the transportation to the facility, and then treat the product once it arrives at their facility. It is their material once they receive it.

Mr. Kemp provided a map showing where the BCR system would be located at the WWTP.

CleanB™ process – Mr. Dunlap explained the CleanB™ process, saying it eliminates odor and a significant amount of undesirable contaminants to produce odor-free class B material in about 10 minutes. The entire processing system is delivered to the site. There are three layers of security. They are making Chlorine Dioxide to inject into the sludge itself. The process takes place entirely “in-pipe.” It is odor-free. This is a nutrient-rich material that is produced and if it were to be land-applied, it can be beneficially reused. They do provide a “land-spreading” service on their own land.

As to the public-private composting element, they are looking for a host site in Northeast Florida. This would be a large regional composting facility. They would have considerable capacity to take in biosolids from other communities. They would combine a nitrogen source with a carbon source, and it would take about 30 days to produce a class A compost product. This would increase traffic on Lundy Road. They have a fully enclosed compost facility to help mitigate the odor. The odor has been eliminated through the sludge process. They monitor the odor issue very carefully. Primarily this is biosolids and yard waste; the food waste and manure would be small components and considered as additional revenue sources. They brand their composting facility as a NuTerra Compost Facility. This is a soil amendment more so than a fertilizer, which has many uses and is helpful with nutrient management. Odor management of food waste trucks would be worked out as a team during negotiations. The finished product is sold for an average of \$8 per yard. This will also reduce the City's CO2 footprint. Carbon credits were discussed.

A feasibility study on the proposal will take about six months to complete, which will take into account access roads.

A slide was shown denoting BCR Wastewater Treatment Plant upgrade benefits to Palatka. Mr. Dunlap said the Clean B™ system comes with a full 10 year warranty. They would finance the system and the City would repay it at a low interest rate. They can take a blend of primary and

secondary sludge through the system and the system allows for a number of processing options. The system is fairly simple to install. The same system can serve up to a 15 mgd per day WWTP. This is a very flexible system. This is also a very environmentally friendly, long term solution. They are located in Jacksonville, very close by. As to the public private partnership, this is a sustainable, "green" solution for the City and the region. It will reduce City WWTP operating costs resulting from discounted tipping fees and the compost facility. There is potential for revenue generation for the City in the form of compost facility host fees, and the compost facility will add several jobs to the community. There will be no funding required from the City to build the compost facility. The City would pay BCR for the CleanB facility and would pay BCR to operate the CleanB system. The City will receive a portion of the profits from the Composting facility.

Mr. Czymbor said they are requesting that the city move forward with Alternative C, Biosolids Treatment at the WWTP where Ayres would submit a contract for pursuing the option, and BCR would submit a contract for the CleanB system, to be executed in November. The BCR contract would be contingent upon the City receiving funding by June of 2015. They can work out the funding strategy in January and he suggests they have the funding in place by June.

This concluded the presentations in the Workshop.

Mr. Kemp said Ayres Associates endorses this project. The next step is to look at funding.

ADJOURN – There being no further business to discuss, the Workshop was adjourned at 5:45 p.m. upon a motion by Commissioner Brown.