

COMMISSION WORKSHOP

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Mayor Woods called the workshop to order to discuss the Reuse and Sprayfield situation relating to DOT Truck Route. Present were Commissioner Wilbur Waters, Commissioner Carolyn Spooner, Commissioner Tommy Chastain, Commissioner Danny Nugent, City Clerk Ricky Thompson, City Attorney Dan Sikes, City Engineers Tim Normand and Greg Lang from Mittauer & Associates, and Mark Crawford, Bradford County Telegraph.

The following was distributed for presentation and discussed.

**CITY OF STARKE
SUMMARY OF REUSE AND SPRAYFIELD SITUATION
Mittauer & Associates, Inc. Project No. 1404-05-1
January 20, 2015**

A. WASTEWATER TREATMENT AND DISPOSAL

1. WWTP is rated for 1.65 MGD which was down rated to 0.98 MGD due to *low* flows in Alligator Creek in the last permit renewal cycle. Plant is only capable of providing secondary treatment.
2. Permitted disposal capacity to Alligator Creek is 1.25 MGD which was down rated to 0.98 MGD in the last permit renewal cycle due to low flows in the creek.
3. Sprayfield has a permitted disposal capacity of 0.80 MGD. Irrigated area is 225 acres with a design application rate of 0.92 inches/week.
4. In 2014, WWTP flows averaged 0.68 MGD with heavy rainfall occurring in infiltration/inflow.
5. Average annual flow to the sprayfield in 2014 was approximately 0.21 MGD which is well below its permitted 0.80 MGD capacity. Historic sprayfield usage has ranged from 0.21 MGD to 0.35 MGD during the past 5 years. The actual operational demand of the sod farm for reclaimed water is much less than the permitted capacity of the sprayfield.
6. Existing operating permit expires March 2, 2016. The permit renewal process has already begun.

7. Preliminary discussions with FD EP have indicated that discharges to Alligator Creek will be significantly reduced and likely disallowed except in wet weather situations. The level of treatment required to discharge to Alligator Creek (even during wet weather situations) will have to meet advanced waste treatment (A WT) standards at a minimum and possibly Numeric Nutrient Criteria (NNC) which are even more stringent. If the City is required to meet numeric nutrient criteria, infiltrative wetlands will be necessary to meet the low level of nutrients that will be required. The current treatment plant is not capable of meeting either of these criteria.

B. TRUCK ROUTE IMPACTS TO SPRAYFIELD

1. The proposed truck route will bisect the City's existing sprayfield into two areas.
2. Approximately 29 acres of irrigable area will be lost which is equivalent to 0.103 MGD of disposal capacity at the design application rate of 0.92 in/wk.
3. FDOT's initial proposed cure was to divert more flow to Alligator Creek and reconnect the pipes between the two bisected areas. This will not be allowed by the regulatory agencies, as they are looking for reductions in discharges to Alligator Creek, not increases.
4. City's attorney and his consultant proposed purchase of 40 acre property (Prevatt) adjacent to sprayfield to mitigate loss of sprayfield area. Unfortunately this property is immediately adjacent to Alligator Creek and much of it appears to be comprised of wetlands.
5. At meeting with FOOT representatives, FDOT indicated that they could acquire Prevatt property through eminent domain. Not sure this is the best approach for the City but it could serve as a basis for determining the "cost to cure" from FOOT.
6. FDOT must make City whole for loss of sprayfield capacity. At a minimum, the City must be compensated for the loss of 0.103 MGD of land application disposal capacity. Ability to easily access both areas of sprayfield must also be provided.

C. REUSE ALTERNATIVES

1. The City's previous consultant prepared a reuse feasibility study which identified several potential sites for public access reuse which totaled 0.768 MGD in potential capacity. These sites were broken into five (5) phases. Phase 1 involved the Edwards Road ballfields which had an estimated capacity of 0.104 MGD, almost identical to what is being lost from the sprayfield as a result of the truck route impacts.

2. The estimated cost to provide reuse to the Edwards Road ballfields is \$1,673,000 (see attached cost estimate). The SRWMO has provided the City a \$190,000 River Grant for this project. The City is required to provide a \$190,000 match for that grant.
3. The City could consider approaching FOOT for the shortfall in funding to construct the Phase I Reuse project for the Edwards Road ballfields, which would be \$1,483,000.
4. With surface water discharge to Alligator Creek likely being significantly reduced in the upcoming permit renewal, the City is going to have to look at other means of effluent disposal. Public access reuse is one of the few options available to the City. However, the review of irrigation billing records for Edwards Road ball fields and various schools have shown actual usage to be much less, typically an order of magnitude less.
5. Other potential sites which could receive public access reuse include the Bradford County Schools and the Enterprise Industrial Park. A cost estimate for a reuse system to serve Phases 1-3 is attached. The total estimated price tag is \$2,600,000.
6. The SRWMD and FDEP have provided a grant in the amount of \$645,700 to the City for Phases 2 and 3 of the reuse system. They are concerned that the City is not making progress on constructing the reuse system and are strongly considering taking the money back.
7. The possibility of irrigating the Truck Route right-of-way was also be explored with FDOT and they did not favor this approach as it creates additional maintenance issues for them.
8. Irrigation of agricultural land already in close proximity to the sprayfield should also be explored. The Moonyham property has approximately 225 cleared acres adjacent to the sprayfield. Unfortunately, this property is slated to be utilized for wetland mitigation in conjunction with the truck route project.
9. To incorporate public access reuse at the WWTP will require the installation of automated valves, a 0.5 MG ground storage tank, reuse high service pumps, and continuous monitoring equipment for pH, chlorine residual, and turbidity. Reuse mains would have to be extended to each potential irrigation site. Operational costs to provide public access reuse water will be higher than the current method of treatment and disposal.

D. RECOMMENDATIONS

1. Based on our meeting today with FDEP representatives, it appears that the only way for the City to continue to discharge to Alligator Creek is to meet Numeric Nutrient Criteria (NNC), which requires a very high degree of treatment. Unfortunately, based on actual operating data, the existing sprayfield can only be operated at 0.2 to 0.4 MGD and still meet the operational requirements of the sod farm. Also, the potential public access reuse sites appear to be only able to handle roughly 1/10 the water that was projected based on actual billing records. Many hundreds of additional wetted acres would be required to make up for the lost discharge capability to the Creek. Then there is the issue with wet weather discharge to the Creek which would still be required to meet a very high level of treatment.
2. We would recommend that FDOT compensate the City for the lost sprayfield acreage in accordance with Attorney's cost for the additional 40 acre parcel adjacent to the sprayfield even though the City will not be pursuing this as a remedy in the near term. The City will need to pursue other long term solutions which will involve a higher degree of treatment at the plant other effluent disposal options.

Mr. Norman stated Mittauer's recommendation is to continue the negotiations with DOT for as much funding for their taking as you can. Put those funds in the bank and hold it until the permit renewal process and the exploration process is going on so we will know the best place to apply it.

They also recommended doing a preliminary engineering report; it will explore all the options and at the end of the report there will be no doubt on what the best option will be to do. We can use the report to take to the state and try and obtain funding. They will bring back a proposal to do the engineering report.

With no additional discussion the Mayor Woods closed the workshop.

Travis V. Woods, Mayor
Commissioner Tommy Chastain
Commissioner Daniel Nugent
Commissioner Carolyn Spooner
Commissioner Wilbur Waters

Attest: _____
Ricky Thompson, City Clerk

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