



**Water, Sewer, and Solid Waste Committee**

**August 13, 2019**

**5:30 P.M.**

**City Hall – Room 326**

**Committee:** Chairman Mark Kinion; Council Member Sonia Gutierrez, Council Member Sloan Scroggin, Council Member Teresa Turk

**Copy to:** Mayor Lioneld Jordan, Don Marr, Paul Becker, Sondra Smith, Susan Norton, Chris Brown, Alan Pugh, Terry Gulley, Peter Nierengarten, Jeff Coles, Brian Pugh, Mark Rogers, Corey Granderson, Aaron Watkins, Greg Weeks, Mayo Miller, Tim Luther

**From:** Tim Nyander, Utilities Director

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**CALL TO ORDER**

**ROLL CALL**

**OLD BUSINESS:**

**1. Nutrient Trading Update**

The Northwest Arkansas Nutrient Trading Research and Advisory Group (NANTRAG) met on June 21, 2019, and unanimously voted for a 60-day pause on any action of the group concerning Draft Regulation 37. The reason for the pause was to schedule another meeting within the 60-day timeframe to consider proposed revisions to the draft regulation from the Fayetteville Water, Sewer and Solid Waste Committee and from Beaver Water District. The 60-day pause will be from June 21<sup>st</sup> to Tuesday, August 20<sup>th</sup>, 2019.

The Fayetteville City Council passed a resolution on July 6<sup>th</sup> to forward comments for consideration to NANTRAG. The meeting to consider these comments will be held on Friday, August 16, 2019 at 1:30pm at the Illinois River Watershed Partnership offices, located at 221 S Main St, Cave Springs, AR 72718. All of NANTRAG's meetings have been publicly noticed and open to the public as will be the August 15th meeting.

**INFORMATON ONLY**

## **2. Advanced Metering Infrastructure and Jacobs Engineering**

At the March and June 2019 Water & Sewer Committee Meeting, the committee was informed that the Utilities Department would be working toward transitioning to automated water metering in the future. AMI is a driver to increase efficiency, and it is a method by which the utility can have 2-way communication with the water meter. This technology will allow the customer to track their water usage, assist the utility in leak detection and allow the billing and collection division to download usage directly into their system. On January 31, 2019, an engineering selection committee was convened, and Jacobs Engineering was selected to assist the City in implementing an AMI system. Jacobs has the expertise to assist the City in selecting a new metering system and implementing a customized program. A scope of services has been submitted, and the Utilities Department is requesting to move forward with Task 1, which includes defining the project, examining the meter inventory, evaluating available technologies, and estimating the costs.

Update: After committee comments in June, City Staff met and further negotiated the applicable scope and effort associated with 'Task 1' of this study. The cost of Task 1 is now reduced from \$127,710 to \$116,450. However, the full study and selection process consists of three overall task items, totaling \$248,350.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

### **NEW BUSINESS:**

#### **1. Transfer Station Drainage Project Status**

The Recycling and Trash Division has secured the services of Multi Craft Contractors for the repair of the drainage system in the Division's Waste Transfer Facility. This work will be conducted between August 31<sup>st</sup> and September 8<sup>th</sup>. During this period, it will be necessary to close the facility to the public as well as outside commercial waste haulers. The City's waste collection trucks will still have access to the Transfer floor during this period in order to carry out normal collection and disposal operations.

### **INFORMATON ONLY**

#### **2. Private Solid Waste Hauler Agreement – Orion Waste Solutions**

***City Code 50.29 - Private Collectors; Contract With City Required***

*No person, except a duly authorized agent or employee of the city, shall empty garbage or trash receptacles, or convey or transport garbage or trash on the streets or public thoroughfares of the city, without a written contract with the city. (Code 1965, §10-46; Ord. No. 1194, 4-6-59; Code 1991, §50.29)*

In accordance with this City Code, Orion Waste Solutions has submitted a request for contract to haul solid waste and recyclable material within the city limits of Fayetteville. There are currently 9 approved franchise haulers operating in the city of Fayetteville.

The hauling contract will permit Orion Waste Solutions to collect and haul Class 1 and Class 4 solid waste and/or recyclables using open-top roll-off style containers with capacities of 20 cubic yards or greater, or roll-off style compactors with capacities of 20 cubic yards or

greater. Source separated recyclables from industrial, large commercial or construction/demolition activities may also be collected using dumpsters with capacities of 6 cubic yards or greater. No unseparated recyclables, with the exception of construction/demolition waste, shall be hauled from any customer within the corporate limits of the City of Fayetteville.

The agreement requires Orion Waste Solutions to pay a monthly fee to the City of Fayetteville of 10% of the gross revenue received for providing solid waste hauling services and 5% of the gross revenue received for providing the hauling of recyclables or construction/ demolition waste to a permitted construction and demolition waste sorting facility. The term of the agreement will be 2 years with automatic renewals for 2 additional 2-year terms. Staff proposes approval for Inland Waste Solutions, LLC d/b/a Orion Waste Solutions to haul and dispose of solid waste and recyclable material within the City of Fayetteville. There will be no budget or staff impacts related to this request.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**3. Smart Metering Pilot Project**

In the past year, the city has experienced an uptick in radio-read water meter “no reads” in several areas of town. The meter malfunctions are to be expected, as the meters, batteries and other appurtenances have outlived their expected life span by many years. However, many of these meters and the associated technology cannot be repaired or replaced as it is obsolete and not available for purchase.

To supplement the upcoming larger Automated Metering Infrastructure (AMI) study, City Staff recommends that a portion of our immediate purchasing needs for meter replacements be satisfied through a small-scale, smart-metering demonstration. This would include the purchase of 1,200 Badger Model M25 meters with associated service agreement to allow the meters to communicate to the “cloud”, upload billing data, and provide a user-interface for customers. The cost of the meters and software engagement fee is \$265,296.66 after sales tax. A monthly fee of \$0.58 per meter would also be applied for access and use of the cloud-based software.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**4. Rebuild Pump & Motor at Hamestrng Sewer Lift Station**

The Hamestrng sewer lift station on Sunshine Road delivers over 85% of the West Side treatment facility’s average 7+ MGD of wastewater influent. The station, first brought online in June 2008, utilizes a series of seven 350 hp Cornell-brand pumps that have been in operation for just over 11 years. Pump No.02 has been scheduled for maintenance rebuild as a 2019 CIP project following 48,000 hours or nearly 5.5 years of run-time service. Recently, Pump No. 2 was taken out of service and shipped to Jack Tyler Engineering, in Little Rock, for disassembly inspection and a rebuild cost proposal. A formal quote for rebuild services has not been received, but based on similar recent work, Jacobs Staff is confident this will not exceed \$55,000.00. The exact amount of the repair will be presented when this item is taken before the City Council.

Because it was necessary to have the repair facility disassemble the units to determine the extent of hidden and unknown damage to equipment already purchased, a bid waiver and/or

formal sealed bidding is not necessary according to Ark. Code Ann. §19-11-203(14)(DD). Funds will be moved from the Sanitary Sewer Rehabilitation account to the Plant Pumps and Equipment account to cover the costs of the pump rebuild. Funds being moved are budgeted funds for sewer rehabilitation/replacement and maintenance.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**5. Baffle Installation at Sewer Lift Station #19; 5716 E Norman Murphy Rd**

The Mally Wagon lift station at 5716 E. Norman Murphy Road (Lift Station #19) pumps untreated influent from residential areas near southeast Fayetteville along East Huntsville Road (Hwy.16) and neighboring Elkins directly into the main gravity line to the Noland Treatment Facility. As wastewater drops from the inlet pipe, the subsequent fall positions the influent stream directly onto Pump #2. This area of turbulent mixing near the pump's intake results in both poor pump performance and significant cavitation damage to the impellor and pump housing.

The Jacobs team has collaborated with the City's Utility Engineer for modifying the 18-inch intake pipe by adding a baffle plate to the inlet pipe that would re-direct the incoming wastewater away from Pump #2 and prevent the undesirable turbulence near the pump's intake. Crossland Heavy Contractors has submitted a price proposal for accessing the Mally Wagon lift station's wet well and installing a stainless steel baffle plate to the 18-inch inlet pipe. Two other local contractors were contacted, and both replied with No Bid responses. Staff recommends completion of the proposed modifications by Crossland Heavy Contractors in the amount of \$14,643.00. Taxes are estimated at \$1,427.69 for a total cost of \$16,070.69. Budgeted Funds will be moved from the Sanitary Sewer Rehabilitation account to the Upgrade/Replace Lift Stations account to cover the costs of the baffle plate installation.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**6. Biosolids Master Planning and Jacobs Engineering**

Currently undigested sludge from both the West Side Wastewater Treatment Plant (WWTP) and the Noland WWTP are dewatered with belt filter presses and the cake is hauled to the Biosolids Management Site (BMS) on the City owned farm (670 acres) across river from the Noland Plant. The BMS includes 6 Parkson Solar dryers (2011) and one Fenton batch indirect dryer (2012) that is powered by natural gas. The dried product is a Class A biosolids product which is sold to 25-30 farmers for \$20/ton. In 2017, the BMS processed roughly 3200 tons of product. The solar drying system and the batch drying system are operating near capacity and periodically, these systems are unable to process all solids produced by the two WWTPs resulting in unclassified solids being hauled over 110 miles away for landfill disposal.

Because of increasing solids production, the City's interest in energy optimization (Energy Action Plan), and the need to provide a more dependable and sustainable solids management system, a solids management plan is needed to identify management options consistent with achieving these goals. The steps to develop a solids management plan for the City includes the following activities.

1. Assessment of Existing Conditions

2. Evaluation Criteria Development and Identification of Appropriate Technology Solutions
3. Plant Simulation Evaluations
4. Cost Evaluations
5. Implementation Planning

On May 7, 2019, Jacobs Engineering was formally selected to provide engineering planning services associated with this study. The not-to exceed fee associated with each task and the overall level of effort is \$254,108.00.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**7. Utility Cost-Shares**

1. Buffington Weir, LLC (Waterline)

On October 23, 2018, the City Council approved a cost-share with Buffington for the construction of Ruppel Road in association with the annexation and development of a 68.65 acre residential subdivision along the future portion of Ruppel Road between Tanyard Drive and Weir Road. On March 25, Buffington received Planning Commission approval for the construction of this proposed subdivision and will be installing new 8" water mains within this development.

This portion of Ruppel Rd. is shown in the Water Master Plan as a portion of the 12" grid to serve this area of the city. The City of Fayetteville would benefit from the cost share as it will provide an extension of this 12" grid and the construction will be less expensive and less disruptive if done during the construction of the subdivision and Ruppel Road. The City will be paying for 100% of the construction of this 12" water main and the developer will be responsible for 100% of the construction within the Magnolia Park Subdivision.

This project is funded by the Water Impact Fee Improvements Fund. Water Impact Fee Improvement budgeted funds will be transferred to the Water System Improvement/ Replacement project to cover the cost of this project. Staff recommends the approval of a Cost Share Agreement with Buffington Weir, LLC in the amount of \$206,070.00 for the installation of a 12" water main along Ruppel Road between Tanyard Drive and Weir Road, approval of a project contingency of \$20,600.00, and approval of a budget adjustment.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

2. Spring Street Cottages, LLC (Fire Hydrant)

Infill residential development is proposed at 147 E. Spring St. necessitating several infrastructure improvements, including the installation of a fire hydrant along Spring Street. A hydrant in this location would also benefit the existing residential properties nearby. This water system improvement is appropriate for utility cost share dollars since the project will significantly increase residential density and falls within our downtown area. Specifically, the project will increase from one duplex to add an additional thirteen units in three separate buildings.

During discussions with the project engineer, and subsequent bid solicitation, the hydrant installation costs and engineering fees were found to be unacceptably high. City staff coordinated with the City Attorney and the developer to offer a cost share benefit while reasonably limiting the City's expense. Instead of paying towards a private contractor and engineering fees for the hydrant installation, the city would provide all materials associated with the hydrant installation from our warehouse. These have been itemized and valued at \$3,682.29.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

3. 3VOLVE Housing Co. (Sewerline)

Infill residential development is proposed by 3VOLVE Housing Company on S. Curtis Avenue, just south of E. Huntsville Rd. on parcel 765-15071-000. This parcel has access to public water, but not public sewer. A sewerline extension from the south will be necessary to service this 1-acre parcel. Engineering plans have been reviewed and approved for this 330 LF sewerline extension, and the developer has received 3 bids from contractors as follows:

NEC, Inc.	\$ 50,338.94
<i>Sweetser Construction, Inc.</i>	\$ 34,755.00
Total Site Development, LLC	\$ 49,600.00

The engineering fees are estimated at \$5,500, for a total qualifying project cost of \$36,655.00. City Staff proposes a 50/50 cost share, with the city's portion being \$18,327.50.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

4. Jack Otten; 2014 W. Maine St. (Sewerline)

Infill residential development is proposed at 2014 W. Maine St. The original 0.6-acre tract has been split into three lots and requires approximately 100-LF of new sewerline to reach the lots for service connection. Engineering plans have been reviewed and approved for this sewerline extension, and the developer received three bids as follows:

General Solutions Group	\$ 31,000.00
Total Site Development	\$ 35,300.00
<i>Blazing Hogs Construction</i>	\$ 23,314.00

The engineering fees associated with the project are \$4,500, for a total project cost of \$27,814.00. City Staff proposes a 50/50 cost share, with the city's portion being \$13,907.00.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**8. 2758 E. Hyland Park Sewer Damages Claim**

On July 18, 2019, at approximately 9:00 a.m. a root blockage caused a sanitary sewer backup into the home of Gary and Heather Prinz. City crews cleared the blockage and

Servicemaster by Quality Restoration was contacted for cleanup. All of the three bedroom, three bathroom home was flooded with sewer. Cabinets, flooring, carpeting, and personal belongings had to be removed and disposed. Bathroom lavatories and the kitchen sink were reinstalled on temporary cabinets, disinfection of the complete home and contents salvageable, was completed. The Servicemaster bill is \$20,619.57 for emergency remediation. We are requesting approval for payment to Servicemaster for this work. Bids for rebuilding the home are being collected and evaluated. Current city ordinance limits reimbursement for claims of this nature to \$40,000 with mayoral approval and 2/3 majority council approval. The total cost for this claim is estimated to exceed \$75,000.

**STAFF REQUESTS THIS BE FORWARDED TO THE CITY COUNCIL FOR CONSIDERATION FOR APPROVAL**

**9. Overview of WRRF Monthly Report**

Discussion of Jacobs' June Monthly WRRF Report

**INFORMATION ONLY**

**PRESENTATIONS**

**ANNOUNCEMENTS**

**ATTACHMENTS**

Capital Projects Status Table  
Jacobs Engineering AMI Agreement Draft  
Badger Meter Agreement Draft and Quote  
Picture of Hamestring Lift Station Dry Well  
Quotes and Schematic of LS19 Baffle  
Biosolids Master Plan Agreement, Scope, and Fees  
Ripple Waterline Cost Share Agreement Documents  
Spring Street Cost Share Agreement Documents  
Curtis Avenue Cost Share Agreement Documents  
Maine Street Cost Share Agreement Documents  
Hyland Park Sewer Claim Servicemaster Invoice  
Jacobs' June WRRF Client Report

**ADJOURN**

Next Water, Sewer, Solid Waste Committee meets on Tuesday, September 10<sup>th</sup>, 2019, 5:30 p.m., Room 326.