



Water, Sewer, and Solid Waste Committee

March 12, 2019

5:30 P.M.

(Or immediately following Equipment Committee Session)

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, John Turley

From: Tim Nyander, Utilities Director

CALL TO ORDER

ROLL CALL

OLD BUSINESS:

1. Advanced Metering Infrastructure and Jacobs Engineering

At the March 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 and assist the utility in leak detection. 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 and an estimated cost of \$248,350 has been submitted.

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

2. Gully Tank Site Land Sale

The City-owned land that contains the Gully Road water tank is adjacent to an Ozarks Electric Cooperative Corporation "Ozarks" electric substation. Due to the underground utilities inside the substation property, Ozarks has requested that they City of Fayetteville sell them a small portion of land to place a building for fiber infrastructure in addition to an access easement. The proposed land sale would include 3,123 square feet of the southwest portion of the City's Gully Road water tank property. Approximately 960 square feet would

be used for the fiber building and would be sold for the amount of \$3,450.00. Approximately 2,163 square feet would be used for an access easement and would be sold for the amount of \$1,937.50. The total proposed land sale would be for the sum of \$5,387.50. The water tank is located across the access road that runs through the City property and the land sale would not affect the water tank, piping, or any future plans or improvements to the water tank.

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

NEW BUSINESS:

3. Noland Aerator Motor Rebuilds (4 units)

The Noland Treatment Facility utilizes a series of eight aerator mixers per the east and west basin-trains for supplying dissolved oxygen to the biological nutrient removal reactors. The eight units operate in series using a combination of four large and four medium aerator mixers; these aerator mixers are powered respectively by a series of 100 hp and 50 hp drive motors. In recent years these 30+yr old mixers have required over-haul corrective maintenance.

Recently four aerator mixers, one (1) large and three (3) medium, were pulled for disassembly inspection and repair proposals. The motors for these units were shipped to Electric Motor Center in Springdale, AR for disassembly and repair inspections. Electric Motor Center has been the vendor consistently used to perform the other motor rebuilds in recent years. Electric Motor Center submitted a repair proposal of \$12,830.67 in repairs to the four aerator motors.

Because it was necessary to have the certified repair facility disassemble the units to determine the extent of hidden and unknown damage to equipment already purchased, staff will be citing Arkansas Procurement Law R6:19-11-203, Subsection 14 (EE) "hidden or unknown damages" to avoid requiring formal sealed bidding.

4. Lift-station #10 (716 Futrall Drive) Generator Replacement

The Futrall Drive lift station is one of several stations that pumps untreated influent to the West Side Treatment Facility. The station's emergency back-up generator has been known for some time to be undersized for optimal operation. Although the current genset has been capable of ensuring back-up power for nearly 10 years, its size has led to the unit reaching its life expectancy. Heavy wear of operations has led to unreliability of the generator's back-up power capabilities. Presently staff must be called out to the station any time the back-up generator is called for to ensure proper operations. Considering the generator's unreliability and need for technician call outs a replacement genset system is recommended. Although the Futrall Drive lift station has been ear-marked to be decommissioned in the future, the timeframe of this activity is indeterminate. In the meantime, the lift station still needs a reliable source of back-up emergency power. The proposed generator has been selected such that it can be easily repurposed in the future as an emergency power source at either a water or wastewater stations as needed.

Through the Sourcewell Cooperative Purchasing Agreement, Riggs CAT recently submitted a quote of \$26,965 for a 50 kW Caterpillar brand generator that meets required technical specifications.

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

5. Lift-station #12 (571 N Double Springs Road) Generator Replacement

The Farmington lift station, off Double Springs Rd, pumps untreated influent from the neighboring community of Farmington to the West Side Treatment Facility. The station's emergency back-up generator is over 10 years old and its make and model are known to be obsolete with unavailability of repair parts and services. This circumstance leaves the aged generator vulnerable to single-point of failure from any component failure. Considering unavailability of repair parts, or outside repair services, and the resultant vulnerability of a lift station overflow a replacement genset system is recommended.

Through the Sourcewell Cooperative Purchasing Agreement, Riggs CAT of Springdale recently submitted a quote of \$102,545 for a 400 kW Caterpillar brand generator that meets required technical specifications

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

6. BMS Fill Auger & Heat/Exhaust Scrubber-Condenser Unit Replacements

Staff recommends replacement of the Fill Auger Assembly and the Exhaust Scrubber-Condenser Assembly for thermal drying biosolids, by A.I.T. Services Inc. at the Biosolids Management Site in the amount of \$43,870.00 plus applicable freight and taxes.

The thermal dryer has been in operation for 6 ½ years and several major system components are reaching their life expectancy. Recent inspections have identified significant corrosion damage of galvanized steel components of the Fill Auger and Exhaust Scrubber-Condenser Assemblies. These assemblies are fabricated on a per order basis resulting in very long lead times. If either assembly were to fail the thermal dryer down time could generate nearly \$100,000 in landfill fees per month while waiting for parts fabrication and delivery. Replacement of the Fill Auger and Exhaust Scrubber-Condenser are recommended to extend the life of these critical system components for up to 5 more years.

7. Replacement of an Influent Pump's Rotating Assembly and Repair of the Drive Motor by Electric Motor Center for the Paul R Noland WWTP.

The Noland Treatment Facility utilizes a series of six dry-pit pumps and 3 submersible pumps to feed influent through the treatment process. In recent years these 30-year old pumps have been systematically removed and overhauled.

Recently one pump was pulled for disassembly inspection and repair proposals. The unit was shipped to Electric Motor Center in Springdale, AR for disassembly and repair inspections. Electric Motor Center has been the vendor consistently used to perform the other influent motor-pump rebuilds in recent years. Electric Motor Center's inspection found the pump's motor drive to be repairable, whereas the pump was too badly worn to be repaired and needs to be replaced. The vendor has submitted a repair proposal consisting of motor-drive repairs and replacement of the pump's rotating assembly. Staff recommends

completion of the \$22,929.95 in proposed repairs to the influent pump. This replacement/repair will represent the final over-haul of Station #1's six dry-pit pumps.

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

8. Noland Roof Replacement

About a year ago, the City engaged Polk Stanley Wilcox Architectural Firm to provide plans and specifications for the reroof project at Noland WWTP. After two unsuccessful biddings it was decided to adjust the specifications and re-bid the project. Bids were advertised and received Feb. 13th. Franklin & Son Roofing from Farmington submitted the lowest bid at \$195,000.

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

9. Contract Amendment No. 2 McClelland Consulting Engineers Design of Morningside Drive Waterline \$18,082.00

Resolution 205-17 permitted McClelland Consulting Engineers (MCE) to proceed with design work for utility relocations along Highway-16 (15th Street) between S. College Ave. and Huntsville Rd. Subsequently, resolution 45-18 increased MCE's scope to include design of a 24" waterline replacement along Morningside Dr. from 15th Street to Huntsville Rd. This 24" waterline is in need of replacement due to age, material, and frequency of leaks.

The original intent was to bid this project at one time, both the Highway-16 relocations and the 24" waterline along Morningside. However, the Arkansas Department of Transportation (ArDOT) will not quickly be progressing with the Highway-16 widening project and city staff recommends bidding the 24" Waterline project as soon as possible to avoid further leaks or failure of this waterline.

This proposed Contract Amendment No. 2 covers MCE's costs associated with separating this project into a stand-alone plan-set, specification, and bid package.

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

10. McClelland Consulting Engineers Engineering Services Agreement for Design of 24" Gravity Sewer line Near Fulbright Expressway \$19,300.00

The City of West Fork and the City of Fayetteville have reached an agreement to allow West Fork to decommission their wastewater treatment plant and send their flow to the City of Fayetteville Noland WRRF. West Fork will be funding this project primarily through state grant monies. A portion of the proposed sewer line is also on the City of Fayetteville's master plan which presents an opportunity to cost-share in order to build the line at the proper size for the future needs of this area.

This contract is for the additional engineering design work required for this upsize and cost-share, beyond the scope of work McClelland is already performing for West Fork.

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

11. Garver Engineers, Engineering Services Agreement for Waterline Design on S. Garland Ave. and Rolling Hills Dr. \$246,450.00

On January 31, 2019, Garver Engineers was formally selected to provide on-call waterline design work for the City of Fayetteville. This engineering services contract is for design and construction phase services for two waterline replacement projects for lines that are in poor condition and need frequent repair.

The first project is on S. Garland Ave. between 15th Street and Cato Springs Road, replacing approximately 2,200-LF of 6-inch Cast Iron and Ductile Iron waterline with 8-inch PVC. The second project is on Rolling Hills Dr. near Oaks Manor Dr., replacing approximately 1,000-LF of 6-inch Cast Iron Pipe with 8-inch PVC.

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

12. Fire Flow Standby Fee Ordinance Change

Staff recommends the revision of monthly standby fire protection service charges to be based on the smaller of the incoming water line size or the backflow preventer.

A fire flow standby fee is paid by a customer that has an unmetered fire sprinkler system. The monthly fee is paid in lieu of a meter. Water meters are not installed in fire lines because there is a risk of the meter failing and not allowing water to flow in the event of a fire. Current standby fees, per Ordinance 1165, Section 1, are “applicable to the stand-by line size.” This has been determined to be the line size coming into the facility.

The actual water amount delivered by a fire protection system is limited by the smallest line size in the supply. The incoming water line size may not be the smallest. In some cases, the backflow preventer is the limiting size appurtenance in the protection system. The charges for these systems should be based on the amount of water that can be delivered to the system which often may be limited by the backflow assembly instead of the incoming line.

When the Water and Sewer ordinance was updated in 2007 or 2008, it included a 3% increase in water and sewer rates annually. This has also included fire line charges. Over the years, this increase has outpaced our sister cities fire line charges. Changes to the Water and Sewer Ordinance are recommended.

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

13. Insituform Technologies - Contract Renewal and Contract Amendment

Resolution 18-22 approved a contract with Insituform Technologies, Inc. for as-needed rehabilitation of sanitary sewer mains using the cured-in-place pipe method. Subsequently, resolution 144-18 approved a change order to add additional funds and scope to their work. This contract allows the city to renew these terms, on a yearly basis for up to four years.

This contract renewal represents the first renewal year and would also include a contract amendment to the *00001 Certification* section of the contract to remove Jim Beavers’ professional engineering seal (now retired) and replace with Corey Granderson’s seal (new Utilities Engineer). The renewal would be for the full 2018 estimated costs (including Change Order No. 1) not to exceed \$528,693.55.

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

14. Jacobs Engineering, Engineering Services Agreement for Design of Aeration Basin Gate Replacement at Noland WRRF \$71,150

On November 16, 2018, Jacobs Engineering was formally selected to design the replacement of two aeration-basin gates located under a reinforced concrete slab. The existing gates are inaccessible and are leaking, replacement is needed so that the plant may remain fully operational throughout this work. This contract includes design and construction phase services.

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

15. Cost Over-run for Sweetbriar Park Streambank Repairs

Cost over-runs were incurred by the Watershed Conservation Resource Center (WCRC) during the repair of damage to a previously restored streambank at Sweetbriar Park where a water main traverses the stream channel of Niokaska Creek. The goals of the original stream restoration project were to reduce streambank erosion, protect park land and civil infrastructure, enhance aquatic and terrestrial habitat, and improve the park aesthetics. The WCRC implemented natural channel design principles that resulted in a reduction of sediment and nutrient loadings to the stream.

The project suffered damage from excessive flooding in April of 2017. In order to meet the original project goals and create an enduring repair, additional field engineering was required to address unanticipated challenges during construction. Unanticipated challenges in the field included realignment of the cross-vane arm to improve flow redirection capability, placement of imbricated fill in the area between the vane arm and the streambank, filling between the vane structure and the site infrastructure, and integrating the repair into existing portions of the project that were unaffected by flooding.

Addressing these challenges required more field time for the project engineer and project manager than was estimated during the initial budgeting process. Additionally, creating a robust riparian area and energy dissipation controls required additional design and an increase in labor costs for installation. As a result, labor expenses for the project exceeded the approved budgeted amount by \$12,160.31.

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

16. Claim 1753 E. Zion Road

On the afternoon of February 5, 2019 roots caused a sanitary sewer overflow into the Park Lake Apartments units 1 and 3 located at 1753 E. Zion Rd. This caused damage to the flooring, drywall, cabinets and bathroom vanities in both units. Servepro was called immediately for emergency sewer mitigation. The cost for this mitigation is \$5,753.45. The apartment management has collected bids for restoration work, and it is expected to cost \$7,216.75. for a total cost of \$12,970.20.

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

17. Cost Share

South School Ave and West South St. – Mike Baumann has requested that the City share in the cost of extending sewer service to 3 planned townhomes of infill development. This cost share is presented as a 50/50 cost share for approximately 280 feet of 8-inch sewer line. The estimated cost of the cost share is \$37,190.

Capital Projects Update

At this meeting, the Director and staff will describe current and future capital projects in water distribution, sewer collection and wastewater treatment.

Number	Project Description	Contractor	Cost	% Complete
1	Hwy 170 Water & Sewer Relocations, Farmington (Study)	Garver	\$19,900	100%
2	Gregg, Poplar and Easy Street Sewer Improvements (Construction)	Goodwin & Goodwin	\$618,862	99%
3	Electrical Improvements for the Noland WWTP (Design)	Allgeier Martin	\$528,054	93%
4	Utility Relocates Hwy 16 and Morningside Drive (Design)	McClelland	\$184,404	90%
5	Kitty Creek Sewer Line Project (Design)	McClelland	\$275,873	90%
6	Goshen/Benson Mtn. Water Tank Improvements (Design)	Hawkins-Weir	\$130,280	95%
7	I-49/Wedington Interchange water and sewer relocations (Design)	Burns & McDonnell	\$203,269	90%
8	2018 Water Tank inspection and water quality analysis (Study)	Garver	\$154,000	75%
9	Ripple Road Water Line – Owl Creek and South (Construction)	Goodwin & Goodwin	\$281,831	68%
10	East Service Area water system (Design)	MWY/Olsson	\$573,309	60%
11	Hickory/Skelton/Shiloh Water Line Replacement (Construction)	Tri-Star	\$817,492	55%
12	North College Water Main Evaluation (Study)	McClelland	\$128,930	40%
13	Fulbright/Gregg Sewer Main Replacement (Study)	Hawkins-Weir	\$19,900	35%
14	Masters Lift Station Removal (Construction)	Kajacs	\$1,067,000	0%
15	Sang Avenue/Pleasant Woods/Maple-Oliver (Construction - Pre Bid)	Kajacs	\$1,361,405	0%
16	Annual Cured in Place Pipe (sewer) contract (2019)	Insituform	TBD	0%
17	Annual Cured in Place Pipe (sewer) contract (2019)	Insituform	TBD	0%

PRESENTATIONS

ATTACHMENTS

- Jacobs AMI Agreement
- Gulley Tank Site Land Sale
- Noland Aerators Repair Quotes
- Lift Station #10 Generator Quote
- Lift Station#12 Generator Quote
- BMS Auger/Scrubber Quote
- Noland Influent Pump Quote
- Noland Reroof Quote & Bid Tabulation
- McClelland Agreement for Morningside
- McClelland Agreement for WF Cost Share
- Garver On-Call Agreement

Fireline Fee Ordinance Change
Fireline Picture #1
Fireline Picture #2
Insituform CO#1
Insituform CO
Noland Aeration Gate Repair
Sweet Briar Park Repair
Zion Road Claim
Cost Share Quotes

ADJOURN

Next Water, Sewer, Solid Waste Committee meets on
Tuesday, April 9th, 2019, 5:30 p.m., Room 326.