



Water, Sewer, and Solid Waste Committee

May 14, 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, Brett Peters, Josh Durham, Chris Buntin, Andrew Chastain-Howley

From: Tim Nyander, Utilities Director

CALL TO ORDER

ROLL CALL

OLD BUSINESS:

NEW BUSINESS:

1. Grit-Scum Removal Sweep Arm – West Side WWTP

The West Side Treatment Facility utilizes one of two GSRU units in the primary treatment process to separate heavy solids and floating scums from the process stream prior to biological treatment. Since the facility's commissioning in 2008 the two GSRU units have not required any major maintenance repairs. Earlier this year, a failed GSRU drive was pulled for inspection-repairs. When staff accessed the GSRU interior corrosion damage to the mechanical sweep-arm was observed. Prior to re-installing the rebuilt drive and bringing the GSRU back online, the damaged sweep-arm will need repaired. The cost of this repair is \$16,481 plus applicable taxes of approximately \$1,600.

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

2. Repair Kits for Macerator Pumps at Noland and West Side Plants

All wastewater at the Noland and West Side facilities goes through a preliminary treatment process where most inorganic solids are removed from the process stream. These 'screened' solids are ground into tiny particles, washed of organic materials, dewatered and disposed into waste dumpsters. Grinding is performed by a macerator pump. Earlier this year, one new macerator pump (to replaced failed units) was CIP purchased for each

facility. The redundant or second set of pumps at each facility are still operational, however, due to the heavy wear these units experience grinding wastewater solids, they are very vulnerable to unexpected part failures. A kit of critical spare parts, one for each facility, will safe-guard redundancy of macerator pump operations and uninterrupted preliminary treatment. The cost for two pump parts kit is 24,823 plus applicable taxes of approximately \$2,450. Because the macerator pumps are part of a trademarked package system, staff recommends approving a bid waiver with Ovivo USA, LLC for purchase of the pump parts.

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

3. Natural Gas Submeter for the Thermal Dryer at the Biosolids Management Site

The thermal dryer located at the Noland wastewater treatment facility's Biosolids Management Site represents a major single-point consumption of natural gas for city-owned utilities. City staff have pointed out the value of isolating the thermal dryer's gas consumption for better evaluating city natural gas usage and energy reporting. The submeter would allow for a helpful measure of monthly, seasonal, and annual natural gas consumption.

The Limited Service Agreement with Black Hills Energy includes the purchase and installation of a Mercury Mini submeter unit and associated equipment in the amount of \$5,960.00. The proposed agreement also includes the purchase and installation of a bypass loop in the amount of \$4,988.00 to maintain uninterrupted feed of natural gas to the dryer during times of submeter maintenance, inspection, testing and/or replacement. The submeter and bypass loop have a total cost of \$10,948.00 plus applicable taxes of approximately \$1,070.

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

4. Purchase of Three Wastewater Samplers for the West Side WWTP

The West Side Treatment Facility utilizes one influent and two effluent autosamplers per NPDES permit requirements for sampling incoming and outgoing facility flow. The autosamplers are equipped with key sample-related functions such as 24-hr compositing, flow-proportioned measurement, and continuous sample refrigeration. These functions are necessary for ensuring the integrity of laboratory methodology and ultimately permit reporting compliance. The City has traditionally used Teledyne-brand, ISCO model autosamplers. In recent years, ISCO's most recent model autosamplers have experienced a significant equipment malfunction where the units suddenly stop sampling due to an unexpected loss of programmed control settings. Secondly, the ISCO samplers have a historic trend of refrigeration unit failure within the 2-3 year range of equipment life. The reliability of the autosamplers are essential for NPDES permit compliance.

Staff recommends an initial pilot test, starting at the West Side facility, of HACH's AS950 All-weather, refrigerated unit as an alternative model autosampler. The HACH-brand is a global leader in the water recovery industry and comes with over 80 years of water analysis knowledge and experience. Additionally, Jacobs has an existing service agreement with HACH for maintenance and troubleshooting of various water-analysis instrumentation at both treatment facilities. A trial of HACH autosamplers will provide coverage under the existing troubleshooting and expertise service agreement with Jacobs.

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

5. Engineering Services Agreement for a Fire Flow Improvements Study

This agreement is for an engineering study to comprehensively identify and prioritize water system improvements within the city limits necessary to meet current fire codes. Hawkins-Weir Engineers, Inc. was selected at a formal engineering selection committee meeting on November 16, 2018. The scope includes water modeling and GIS mapping to determine areas that do not meet fire code due to lack of flow or missing infrastructure. Project costs will be estimated and a priority list developed which could lead to future design and construction projects. **\$134,720.00.**

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

6. Highway 170 Utility Relocations; Amendment No. 1 to Engineering Services Agreement with Garver, LLC

The City of Farmington has elected to widen and improve Highway 170 and is using Garver Engineering to design and oversee construction. The City of Fayetteville owns and operates several waterlines in this area that must be relocated. The project is estimated to be 72% Reimbursable to the City of Fayetteville. Garver has already been selected for this service and provided a conceptual design and cost estimates. This amendment will increase the scope and fees for Garver to complete the engineering design, acquire easements, and provide construction phase observation and management as necessary. **\$246,475.00**

Capital Projects Update

Number	Project Description	Contractor	Cost	% Complete
1	Water Audit (loss) Study	Black & Veatch	\$83,691	100%
2	Annual Cured in Place Pipe (sewer) contract (2019)	Insituform	\$528,694	0%
3	Electrical Improvements for the Noland WWTP (Design)	Allgeier Martin	\$480,049	100%
4	Utility Relocates Hwy 16 (Design)	McClelland	\$117,859	90%
5	Kitty Creek Sewer Line Project (Design)	McClelland	\$250,793	90%
6	Goshen/Benson Mtn. Water Tank Improvements (Design)	Hawkins-Weir	\$133,980	100%
7	I-49/Wedington Interchange water and sewer relocations (Design)	Burns & McDonnell	\$203,269	95%
8	Hickory/Skelton Water Line Replacement (Construction)	Tri-Star	\$743,492	76%
9	2018 Water Tank inspection and water quality analysis (Study)	Garver	\$154,000	85%
10	North College Water Main Evaluation (Study)	McClelland	\$128,930	40%
11	East Service Area water system (Design)	MWY/Olsson	\$630,635	67%
12	Hwy 170 Water & Sewer Relocations, Farmington (Study)	Garver	\$19,900	100%
13	Rupple Road Water Line – Owl Creek and South (Construction)	Goodwin & Goodwin	\$245,082	80%
14	Fulbright/Gregg Sewer Main Replacement (Study)	Hawkins-Weir	\$19,900	95%
15	Masters Lift Station Removal (Construction)	Kajacs	\$1,067,000	41%
16	Sang Avenue/Pleasant Woods/Maple-Oliver (Construction)	Kajacs	\$1,458,000	0%

PRESENTATIONS

Black & Veatch Water Audit Presentation – Andrew Chastain Howley

In 2018 a formal water audit was performed by Black & Veatch to quantify and identify water losses in Fayetteville's drinking water distribution system. This presentation will outline the findings and recommendations of that study.

ATTACHMENTS

GSRU Sweep Arm Repair Quotes
Noland/West Side Macerator Pump Parts Quote
BMS Dryer Submeter Quote
Fire Flow Study Agreement
Hwy 170 Agreement Part 1
Hwy 170 Agreement Part 2
Water Audit Study

ADJOURN

Next Water, Sewer, Solid Waste Committee meets on
Tuesday, June 11th, 2019, 5:30 p.m., Room 326.