



**City of Broken Arrow**  
**Minutes**  
**Broken Arrow Municipal Authority**

City Hall  
220 S 1st Street  
Broken Arrow OK  
74012

*Chairman Craig Thurmond*  
*Vice-Chair Scott Eudey*  
*Trustee Mike Lester*  
*Trustee Johnnie Parks*  
*Trustee Debra Wimpee*

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**Tuesday, May 16, 2017**

**Council Chambers**

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**1. Call to Order**

Chairman Craig Thurmond called the meeting to order at approximately 7:41 p.m.

**2. Roll Call**

**Present: 5 -** Debra Wimpee, Johnnie Parks, Mike Lester, Scott Eudey, Craig Thurmond

**3. Consideration of Consent Agenda**

Chairman Thurmond asked if there were any items to remove from the Consent Agenda. There being none, he asked for a motion.

MOTION: A motion was made by Mike Lester, seconded by Johnnie Parks.

**Move to approve the Consent Agenda as presented**

The motion carried by the following vote:

**Aye: 5 -** Debra Wimpee, Johnnie Parks, Mike Lester, Scott Eudey, Craig Thurmond

- A. 17-1674 Approval of Broken Arrow Municipal Authority Meeting Minutes of May 2, 2017**
- B. 17-2194 Acknowledgement of submittal of the Broken Arrow Municipal Authority's Water Supply Report for the month of April 2017**
- C. 17-2215 Approval and authorization to execute an Agreement for Professional Consultant Services with HDR Engineering, Inc., for Verdigris River Water Treatment Plant Pretreatment Basin Expansion (Plant Plate Settlers Expansion) Project No. 175436**
- D. 17-2219 Approval and authorization to execute the Fourth Extension Agreement with WasteZero for the purchase and distribution of refuse bags**
- E. 17-2211 Award the most advantageous bid to J & R Equipment for the purchase of a 2017 Ford Transit van with Cues K-2 Summit camera**
- F. 17-2201 Award the lowest responsible bid to Stronghand, LLC, and approve and authorize execution of a construction contract for Water Distribution Storage Tank Mixing Improvements (Project No. 175432)**
- G. 17-2195 Award the most advantageous bid to White Star Machinery for the purchase of one (1) compact rubber tracked mini excavator and accessories to be used by Utilities field crews for making water taps and installation of water lines**
- H. 16-1560 Approval of the Broken Arrow Municipal Authority Claims List for May 16, 2017**

#### **4. Consideration of Items Removed from Consent Agenda**

There were no items removed from the Consent Agenda. No action was required or taken.

#### **5. Public Hearings, Appeals, Presentations, Recognitions, Awards**

##### **A. 17-2209**

##### **Presentation and update concerning the status of the Authority's Water and Wastewater Utility Infrastructure**

Assistant City Manager of Operations Ken Schwab recalled that on May 3, 2016, a presentation was made to the Council on the status of the City's water and sewer systems. His presentation would be on what the City had accomplished and where it stood in regard to water and sewer, a year later.

With respect to water system improvements, there were 12 projects in various phases of planning and construction. One accomplishment, achieved in record time, was the second supplemental connection with Tulsa. Another, for which the design was complete, was a 24" water line connecting the Battle Creek area up on Omaha/51<sup>st</sup> Street, south, to Albany/61<sup>st</sup> Street. The water line would really help with distribution and circulation on the north end of Broken Arrow. A third project was the elevated water storage tank, which was moving forward, following a decision by the Council at the last meeting, concerning land acquisition. The project awaited construction funding. A fourth project was the addition of mixers to four ground storage tanks. Rehabilitation of west ground storage tank on Tiger Hill, was another project on the list that was moving forward, as well. Among the bigger projects was the design and installment of pretreatment plate settlers, which would address a bottleneck at the Plant. Addressing that challenge would enable water production at the Plant to increase to 30 million gallons per day. Addition of copper sulfate feed delivered via a booster pump would rid water of algae before it reached the plate settlers. Design of the Jasper water line at 131<sup>st</sup> Street, to be upsized from an 8" to a 12"-inch line, was underway and it was expected that in-house crews would be able to do the job. Improvements of downtown water lines was an ongoing, with a plan to upsize College Street from Main Street to Cedar Avenue, from a 4" to an 8", to go to construction no later than the fall. A major water project was the Kenwood Hills Booster Pump Replacement, which he had conceived as an alternative to rehabilitating a 40-year-old booster pump station. Under the plan, they would bore underneath the highway and tie it to their high pressure plain, which would be the tank at First Baptist Church. In-house staff was completing the design and construction would begin hopefully, by winter. The final two projects concerned long term water supply and establishment of disinfection monitoring. With regard to the former, Mr. Schwab recalled a meeting in February in which they discussed the drafting of the 2060 Water Plan. With reference to the latter, chloramines were a great disinfectant, but use of them required a lot of attention. Incidents occurring over the past few years had made the need to create a monitoring program apparent. Monitoring had started and testing was being done, with the City moving toward developing a full-fledged program in that area.

Turning to wastewater system improvements, Mr. Schwab observed that wastewater was most in need of attention by the City. Three major projects the City was taking on in connection with wastewater were preliminary treatment involving headworks/grit removal, digester rehabilitation and development of the Wastewater System Master Plan. The preliminary treatment program was presently at the Oklahoma Department of Environmental Quality (ODEQ) for review, and would cost about \$12 million or \$13 million to construct. It was anticipated that the City would advertise for bidders by June, with construction to begin in September. Advertising for the digester rehab was on the street, with bidding opening in early June and construction beginning by August. The two projects together, ran at a little over \$14 million to \$15 million investments in the Lynn Lane Wastewater Treatment Plant. Together they would streamline operations in the

treatment process as a whole, along with providing odor control. The Wastewater System Master Plan was being finalized, awaiting final review.

Other wastewater projects in the works were described by Mr. Schwab. Bar screens for lift stations which had been approved and was awaiting advertising, shortly. The East Haskell Subdivision sewer upgrade would be designed in anticipation of funding in 2019, with possible involvement of City crews to help reduce the cost. The Elm Creek trunk line project entailed the main sewer line just west of Elm Place, in the south part of town going to the Lynn Lane Plant. The system was overloaded and a solution to the problem was in design. Modifications were being considered and hopefully, in the next year or two they would reach the funding and construction phases. Mr. Schwab went on to report that design was completed on the Secondary Clarifier rehabilitation. They would be going back to the Oklahoma Water Resources Board (OWRB) most likely in the fall, to obtain some funding. Construction could then start in early 2018.

A series of trunk line projects were delineated by Mr. Schwab. The County Line trunk sewer, built in 1984, had been eaten up by gases, and design of its \$20 million replacement was about 90% complete. The Lynn Lane trunk sewer proceeding from Jasper Street into the Plant would receive a 60" diameter pipe to handle wastewater flow, doubling roughly, the current diameter of pipes employed. It was where the Broken Arrow Creek, Lynn Lane and County Line converged for a little less than a mile, heading into the Plant. Project design would probably be completed in the fall. The Haikey Creek trunk sewer project would involve slip lining the big 54" line in the west side of town, that went into the Haikey Creek lift station and the Regional Metropolitan Utility Authority's (RMUA) treatment process. Slip lining about a mile or so of the line would increase its integrity. The Aspen Creek Relief Line, as mentioned by Mr. Spurgeon in his comments, was the line the City would be putting in just west of Aspen Avenue, necessitating two lift stations being taken off line, that would then go gravity feed. One of the overburdened lift stations on Florence that pumped into Elm Creek, would be relieved when the Aspen Creek Relief Line became operational later in the year. Mr. Schwab reported that the Oneta Road lift station at Oneta and Kenosha Street was completed, i.e. substantial completion had taken place and it was being used, with only few finishing touches to be made. The 209<sup>th</sup> Street lift station and force main was under construction and moving along very well. The construction was being done just east of the Turnpike and south of Kenosha Street. About 9,000 feet of force main would redirect flow from a lot of undersized lift stations towards County Line trunk sewer and to Lynn Lane. It had to be on line by the time Timber Ridge opened in August and Engineering staff, along with Utilities, had to be very creative in figuring out how to get it working. SCADA (Supervisory Control and Data Acquisition), a system of software and hardware elements allowing the City to look at all of its lift stations and booster pump stations, was ready to go to construction. At present, the stations had to be visited daily, however with the SCADA control system in place, stations could be monitored remotely and it would be much more efficient and effective.

Mr. Schwab shared some slides on RMUA. The first showed a flow equalization basin which had been completed at the Haikey Creek Plant to hold 12 million gallons, a few years before. However, with the last couple of rains, the 12 million gallons of diluted wastewater had actually overflowed and bypassed. An additional basin, currently under construction, would bring the total up to 30 million gallons of storage at the Plant.

Mr. Schwab gave further updates on additional wastewater projects. The Haikey Creek force main, consisted presently, of a 30" force main proceeding from the lift station in Haikey Creek Park south, about 3 ½ miles to the Plant. In the summer they would replace one of those force mains with a 36" brand new force main, with funds in place, the design complete, right-of-way acquired and Tulsa getting their money in the next month or two.

Mr. Schwab explained that the last three items: grit removal rehabilitation, maintenance building and activated sludge aeration replacement, were all at the Plant and in the early-design phase.

Concluding his report, Mr. Schwab revealed that all told, the City was investing about \$70 million worth in the forenamed projects, spread out over less than two years. He applauded everyone from the Engineering, Utilities, Legal, and Finance Departments, involved in addressing the improvements. The City had made a lot of progress and it had been a team effort.

Councilman Lester stated that someone had recently asked him a question with regard to odor at the Lynn Lane Wastewater Treatment Plant. He asked how successful their efforts would be at reducing odor. Mr. Schwab replied that he believed it would be very successful. The biggest factor in that success was twofold. They were moving the headworks, open to the air at present, south, away from the property line, and enclosing it. The second aspect was an open-air screw pump, that lifted up and took waste into the process, that was being done away with. Coupled with the digesters being installed, the two improvements would reduce odor substantially.

Mr. Spurgeon noted that Mr. Schwab and he had discussed the once the contract was awarded for improvements to the Plant emitting odors, they would both go to the homeowner's association meeting to inform them because it could take about 18 months for the project to be completed. He would let the Council members know, in case they wished to attend the meeting.

#### **6. General Authority Business**

There was no general Authority business.

#### **7. Executive Session**

There was no Executive Session.

#### **8. Adjournment**

The meeting adjourned at approximately 7:57 p.m.

MOTION: A motion was made by Johnnie Parks, seconded by Mike Lester.

#### **Move to adjourn**

The motion carried by the following vote:

**Aye: 5 -**

Debra Wimpee, Johnnie Parks, Mike Lester, Scott Eudey, Craig Thurmond

Attest:

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Chairman

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Secretary