
INTEROFFICE MEMO
Office of the City Manager

To: Honorable Mayor and City Councilors
From: Thomas M. Moton, Jr., City Manager
Date: May 30, 2014
Re: Notes to Council

1. STAFF REPORTS / ITEMS REQUIRING IMMEDIATE ATTENTION

- Contracts under \$25,000, and Fire Department Assessment Centers
- Budget Message
- Press Release: BA Appoints New Acting Fire Chief Due to Changes in State Law
- Utilities Cost of Service: Water, Wastewater and Stormwater/ Flood Control Reports
- Broken Arrow Dam Safety Program and OWRB Inspection Report
- Old Town Water Modeling and Improvement Plan
- Letter to Dr. Hartzler, Superintendent of Union Public Schools
- Rose West Park | Dog Park Status
- Legislative Report from Terri Cleveland
- Update on Staff Meetings with Tulsa Shock and Hockey Facility Group

2. GENERAL CORRESPONDENCE / NOTIFICATION

- Utilities Department Monthly Report – April
- BAPD Month in Review – May
- Tulsa's Future Regional Economic Development Report – April
- Letter from Cox Communications, Customer Equipment Changes
- Media Tour Agenda and Water Treatment Plant System Overview

3. SPECIAL EVENTS / ACTIVITIES

- June 5 Ribbon Cutting for Verdigris Water Treatment Plant

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Tom", is written over the typed name.

Thomas M. Moton, Jr.

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Attachments

1. STAFF REPORTS / ITEMS REQUIRING IMMEDIATE ATTENTION



INTEROFFICE MEMO

To: Honorable Mayor and City Councilors
From: Thomas M. Moton, Jr., City Manager
Date: May 30, 2014
Re: City Councilor Comments on Contracts under \$25,000 and Fire Department Assessment Centers

At the May 20, 2014, City Council meeting, City Staff was queried by Councilor Lester on Consent Agenda Item 5G, "Ratification of two agreements with Booth Research Group for Assessment Center for positions of Captain and Battalion Chief". Staff was asked about why BRG charged the City for the assessor travel expenses as a result of the Captain's promotional/assessment center being repeated. Staff committed to contacting officials at BRG and recommended Council table the agenda item so that staff could contact BRG.

City Purchasing Policy

This memo addresses the second line of inquiry from that meeting. Staff responded to Councilor Lester's inquiry about Staff executing contracts under \$25,000. I believe Staff has fully complied with the City of Broken Arrow's Purchasing Manual, which according to Staff records was approved by the City Council on November 2, 2010, and updated on February 5, 2013. Section V, Purchases in General, under Subsection (b), Purchasing Guidelines for Purchases more than \$2,500 and less than \$25,000, addresses the issue of Staff's authority to purchase goods and services between \$2,500 and \$25,000. Below is an excerpt of the Purchasing Manual that Staff relies on in making decisions on whether or not a purchase must be presented to the City Council prior to the purchase being made. Special areas of emphases are highlighted in yellow. Any purchases under this subsection do require City Council approval through the approval of the Claims List process done on City Council Consent Agenda.

b. Purchasing Guidelines for Purchases more than \$2,500 and less than \$25,000

The City of Broken Arrow Departments shall have the authority to purchase goods and services through the purchasing system up the value of more than \$2,500 and less than \$25,000 in the open market without adherence to the procedure for formal bids in accordance with the following:

- The Department shall prepare a minimum set of specifications or an explanation of services to be provided to the Logistics Division.
- The Logistics Division will obtain at least three (3) written quotations, the results of which shall be analyzed and tabulated prior to the award of purchase by the requesting Department.
- All quotes shall be filed by the Logistics Division for purpose of documentation and future reference.
- Basis of such purchases shall be awarded based on: lowest price, delivery time, and quality.
- Quotations shall be entered into the requisition via the quote section.

- Departments shall seek to obtain the highest quality goods or services at the best possible price available at the right time and in the right quantities.
- Departments shall seek to acquire goods and/or services required from qualified suppliers in a manner in which promotes fair and equitable vendor relationships.
- All purchases must be carried out in accordance with the limits of approved budgets.
- The Department shall award the purchase to the most responsible vendor whose product or service represents the greatest overall value to the City.
- The Department shall have the authority to reject any and all quotes if they determine, in their discretion, that additional solicitation may yield a more desirable result for the City of Broken Arrow.
- Quoting may be waived by purchasing goods, products, or services through vendors with existing contracts to supply those goods on a City wide basis.
- All requisitions for these purchases will be approved through the normal electronic approval process in the PI system.

The above process for making purchases between \$2,500 and \$25,000 differs from those purchases at or above \$25,000 as specified in the Subsection (c) of the same Section. Subsection (c) requires City Council approval prior to the purchase.

c. Purchasing Guidelines for Purchases \$25,000 or more

All purchases of whatever nature, except as otherwise directed by the City Council, for labor, service, material, equipment or supplies will be subject to the competitive bidding process for amounts of \$25,000 or more and shall be let, by free and open competitive bidding after advertisement, to the lowest responsible bidder or any other bidder to whom the award would be determined by the City Council to be in the best interest of the City of Broken Arrow.

- All requisitions for these purchases will be approved through the normal electronic approval process in the PI system.
- Bids shall be entered into the requisition via the quote section.
- These purchases will require City Council approval prior to purchase.
- This does not apply to public construction contracts.

Summary of the Booth Research Group Contracts

Both BGR contracts secured by the Fire Department were under the \$25,000 threshold and were signed by the City Manager in accordance to the City's Purchasing Manual. At the time of the contract execution, a repeat of either promotional exams/assessment centers was not contemplated nor a matter to be anticipated. The repeat of the Captain's promotional exam/assessment center was done under the auspices of an emergency in that the Fire Department wished to avoid adding significant inconvenience to the candidates who had spent hours upon hours preparing for the promotional process. As a result, Acting Chief Annas recommended that the process to be rescheduled the following week. If the additional Captain's exam services had been brought to the City Council, the candidates' opportunity to complete the promotional process/assessment center would have been unduly delayed.

Below is a summary of the events that led to starting the Captain's assessment center over, according to Assistant Fire Chief Annas:

Recap of Captains Assessment Center:

“On Sunday February 16, 2014 the three out of state assessors and the Booth employee who would be administering the test arrived in Tulsa.

On Monday, February 17, 2014 those 3 out of state assessors were trained by the Booth employee on how to complete the assessment paperwork and how to evaluate the candidates.

On Tuesday, February 18, 2014 the first Captains assessment center begins. Around 11:00 am the Fire Management observer informs the chief of the problem that occurred with the assessment center. Around 1:00 pm that day the decision is made to shut down the assessment center.

On Wednesday, February 19, 2014 the test candidates have a meeting and from that a framework for an MOU is presented to Fire Management. Fire Management discussed these options with the city manager via phone on Wednesday Evening. It was agreed to proceed with a second assessment center as quickly as possible. Fire Management contacted Booth the following day and get them started buying tickets and making travel arrangements for the 6 assessors who would be arriving on Saturday.

On Thursday, February 20, 2014, the MOU was drafted based upon the framework we had discussed the night before. When it was completed we executed copies of the document and the process continued.

On Saturday, February 21, 2014 the 6 new assessors arrived in Broken Arrow.

On Sunday, February 22, the 6 new Assessors trained to conduct the Assessment Center.

On Monday, February 23, the second Captains assessment center occurred without any further mishap.”

Conclusion

Based on the City’s current policy, I believe Staff complied with the Purchasing Manual Requirements.

Respectfully submitted,



Thomas M. Moton, Jr.

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CC: Steve Jarrett, Acting Fire Chief
James Annas, Assistant Fire Chief



INTEROFFICE MEMO

To: Honorable Mayor and City Councilors
From: Thomas M. Moton, Jr., City Manager
Date: May 30, 2014
Re: Budget Message

A copy of the Fiscal Year 2015 Proposed Budget and Fiscal Year 2016 Financial Plan budget message is attached. The draft budget was provided to City Council at the May 20, 2014, Budget Study Session. Draft budget copies for public inspection have been available at the City Hall Receptionist Desk and the public libraries located in Broken Arrow since Friday, May 22.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Tom".

Thomas M. Moton, Jr.

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Attachment



Contact: Krista Flasch
Director of Communications
City of Broken Arrow
Phone: (918) 259-2400, ext. 5309
Mobile: (918) 409-7771
Fax: (918) 259-8226

City Appoints New Interim Fire Chief Due to Change in State Law

Broken Arrow, Okla. (5/22/2014) – Effective Thursday, May 22, 2014, Deputy Fire Chief Steve Jarrett is appointed to the Acting Fire Chief position. Jarrett currently serves as Deputy Fire Chief of the Prevention Division and has previously served as the Acting Fire Chief of the department.

The need to appoint another Acting Fire Chief was created after the passage of Senate Bill 2024.

Senate Bill 2024, which was signed into law on May 14, changed the requirements for a person to serve as an acting or interim fire chief. City Manager Thom Moton's understanding, is the bill appeared to have made an interim or acting fire chief subject to the same requirements as a person occupying the fire chief position in a non-interim or permanent role. The law states that a fire chief shall have had at least three (3) years of experience as a paid fire fighter before assuming the position of fire chief.

The City Attorney's Office was advised to conduct legal research on the question of how the bill applies to then Acting Fire Chief James Annas; and whether or not the bill applies prospectively (into the future) or applies retroactively (existing). Acting Fire Chief Annas' experience as a fire fighter before his hire in June 2011 with the City of Broken Arrow was with a volunteer fire department.

On May 21, the City Attorney's Office provided its opinion on the question of the law's application to Acting Fire Chief Annas and supplemented that opinion on May 22. As a consequence of the opinion and requirements to comply with the laws of the state, the City Manager determined that the City of Broken Arrow should treat the law as applicable to Acting Fire Chief Annas.

The City is actively involved in the recruitment and selection process for the next Fire Chief. It is anticipated that a finalist should be identified within four months.

Questions may be directed to Krista Flasch at 918-409-7771 or kflasch@brokenarrowok.gov.

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INTEROFFICE MEMO

To: Honorable Mayor and City Councilors
From: Thomas M. Moton, Jr., City Manager
Date: May 30, 2014
Re: Utilities Cost of Service/ Water, Wastewater and Stormwater/Flood Control Reports

For your convenience in preparing for the Utilities Cost of Service presentation at the June 2 Broken Arrow Municipal Arrow meeting, hardcopies of the below reports were mailed to you today. The presentation by Black and Veatch will focus mainly on the PowerPoint presentation.

1. City Council Final Presentation
2. Broken arrow Water Wastewater and Stormwater Rate Report Draft
3. Water Dashboard
4. Wastewater Dashboard
5. Stormwater Dashboard
6. Broken Arrow Development Fee Report FINAL DRAFT
7. Broken Arrow Indirect Cost Allocation Report FINAL DRAFT
8. Utility Connection Fee and Stormwater in Lieu Review FINAL DRAFT

As a reminder, the City Council has had three Special Meeting workshops (Study Sessions) and there have been an even greater number of staff workshops. City Council Study Sessions were held on February 18, 2014; April 1, 2014; and May 5, 2014. City Staff from the City Manager's Office, Finance, Engineering and Construction, and the Utilities departments and representatives of Holloway, Updike and Bellen, Inc. (HUB) have played an integral role in the development of the cost of service study and resulting reports. Staff members began working in October 2013 on this important effort to ensure the sustainability of the water, wastewater and stormwater/flood control utility enterprises.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "T. Moton".

Thomas M. Moton, Jr.

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Attachments

To: Thomas Moton, City Manager
From: Jeff Bigby, PE, CFM, Stormwater Manager
Date: May 28, 2014
Re: City of Broken Arrow Dam Safety Program Overview\OWRB Correspondence on
Carousel Concourse Detention Facility Dam

The City of Broken Arrow owns multiple detention facilities and reservoirs that are classified as dams by the Oklahoma Water Resources Board. Current facilities owned by the City that meet the OWRB dam classification are the Water Treatment Plant Reservoirs, Aspen Pond Regional Detention Facility, Carousel Concourse Regional Detention Facility, and Covington Creek Regional Detention Facility and Chisholm Trail South Park Lake that are both currently under stages of construction. In order to effectively address the state regulations as to operation and maintenance of the City's dams, the enclosed City of Broken Arrow Dam Safety Program Basic Guidelines and Standard Operating Procedures was implemented on December 26, 2013. Jeff Bigby as Stormwater Manager performs the duties of the Dam Safety Program Coordinator with Tom Hendrix, Acting Director of Engineering and Construction performing the duties of Dam Engineer.

Enclosed is a letter from OWRB addressing the recent required inspection report prepared and submitted for the Carousel Concourse Regional Detention Facility located near East Freeport Street and North 14th Street. The Engineering and Construction Department has been in correspondence with OWRB about the current high hazard classification assigned to the Carousel Concourse dry detention facility. The embankment height and stormwater ponding volume are barely above the lower thresholds of the OWRB dam classification. The Engineering and Construction Department is exploring the possibility of providing minor alterations to the dry pond embankment to see if minor reduction in height and dry pond volume can remove the dry detention facility from OWRB dam classification and the extra requirements that are associated with a high hazard dam such as breach analysis preparation, emergency action plan preparation, and annual dam inspections prepared and sealed by a professional engineer. Any proposed alterations to the dry detention pond would be done without reducing the necessary flood control functions of the dry detention facility.

The City Manager will be copied on future correspondence with OWRB on dam issues. A request will be made to have OWRB copy the Broken Arrow City Manager on all City of Broken Arrow dam correspondence letters.



STATE OF OKLAHOMA
WATER RESOURCES BOARD

www.owrb.ok.gov

May 23, 2014

Mr. Kenneth Schwab
Director of Engineering
City of Broken Arrow
220 South 1st St.
Broken Arrow, OK 74102

Dear Mr. Schwab,

Re: 2013 Inspection Report of Carousel Concourse Detention Facility (OK30266), Tulsa County, High Hazard-Potential Classification

Please consider this letter as acknowledgement of receipt of your dam inspection report for **year 2013** for the above referenced dam, prepared by Kenneth D. Schwab, P.E., as a fulfillment of the requirements of Oklahoma Administrative Code 785:25-9-1.

The inspection report found the **Carousel Concourse Detention Facility** and spillway to be in fair condition, with recommendations from the engineer to address and monitor the following deficiencies:

1. Evidence of livestock on the crest, upstream and downstream slopes, and abutments
2. Brush and woody debris along downstream fence line
3. Woody growth in basin

Please consult your copy of the inspection report for recommendations on correcting these deficiencies.

The OWRB's Dam Safety Program is pleased to announce free Emergency Action Plan (EAP) workshops in Oklahoma City and Tulsa this summer. Participants will hear from guest speakers from the National Resource Conservation Service and the National Weather Service. There will also be time reserved for dam owners to speak with OWRB representatives regarding their specific EAPs, which must be updated and filed with the OWRB every five years. Please watch for your formal event invitation in the mail, or call the OWRB's Dam Safety staff at (405) 530-8800 for more information.

OWRB dam safety program lead, Mr. Yohanes Sugeng, P.E., and his staff are always available to answer questions about the inspection process and our program. You may also visit our website for current events, upcoming training opportunities, and helpful guidance materials. Thank you for your assistance in keeping Oklahoma's dams safe.

Best regards,

A handwritten signature in black ink, appearing to read "Julie Cunningham". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Julie Cunningham, Chief
Planning and Management Division

**CITY OF BROKEN ARROW
DAM SAFETY PROGRAM
BASIC GUIDELINES AND STANDARD OPERATING PROCEDURES
REVISION 0 – DECEMBER 11, 2013**



City Manager

12/26/2013

Effective Date

- 1.0 **Overview.** This document is intended to provide the basic guidelines and standard operating procedures required to implement the City of Broken Arrow's Dam Safety Program for city owned facilities and comply with State of Oklahoma statutes and regulations.

- 2.0 **Statutes and Regulations.** The following state statutes and state regulations shall govern in all matters pertaining to the City of Broken Arrow's Dam Safety Program basic guidelines and standard operating procedures.
 - 2.1 Oklahoma State Statutes, Title 82, Section 110, entitled the "Oklahoma Dam Safety Act" shall govern in all legal matters pertaining to this Program.
 - 2.2 Oklahoma Administrative Code, Title 785, Chapter 25, entitled "Dam Safety" shall govern in all regulatory matters pertaining to this Program.

- 3.0 **Roles.** The following section identifies the City of Broken Arrow's representative responsible for the duties associated with each specific role:
 - 3.1 Dam Owner – The City of Broken Arrow shall serve as the dam owner for each individual dam permitted by the State of Oklahoma Water Resources Board and identified on the National Dam Inventory list;
 - 3.2 Dam Owner Representative – The City Manager or his/her designee shall serve as the Dam Owner's Representative and perform the duties thereof;
 - 3.3 Dam Safety Program Coordinator – The Stormwater Administration Division Manager in the Engineering and Construction Department shall serve as the Dam Safety Program Coordinator and perform the duties thereof;
 - 3.4 Dam Engineer – The Director of Engineering and Construction or his designee shall serve as the Dam Engineer and perform the duties thereof; and
 - 3.5 Dam Operator – The Stormwater Division Manager in the Streets and Stormwater Department shall serve as the Dam Operator for all dams; however, the daily operations and maintenance responsibilities shall be administered based upon the type of dam as defined below:
 - 3.5.1 Treatment Plant Dams – Any water or wastewater treatment plant process facility identified as a dam by the Oklahoma Water Resources Board in accordance with state statutes shall be operated by the specific Plant Manager;
 - 3.5.2 Park Dams - Any city park or golf course facility identified as a dam by the Oklahoma Water Resources Board in accordance with state statutes shall be operated by the Director of Parks and Recreation or his/her designee;

3.5.3 Other Dams – All other facilities identified as a dam by the Oklahoma Water Resources Board in accordance with the state statutes shall be operated by the Stormwater Division Manager in the Street and Stormwater Department.

4.0 **Duties.** The following general duties shall be the responsibility of each specific role identified in Section 3.0:

- 4.1 Dam Owner Representative – shall make all administrative decisions associated with ownership of the permitted dam;
- 4.2 Dam Safety Program Coordinator – shall coordinate all aspects of the Program both internally between other departments as well as externally with other agencies, such as the Oklahoma Water Resources Board, Tulsa County and Wagoner County, if applicable;
- 4.3 Dam Engineer – shall make all technical decisions associated with the ownership of the permitted dam;
- 4.4 Dam Operator – shall make daily operational and maintenance decisions associated with ownership of the permitted dam.

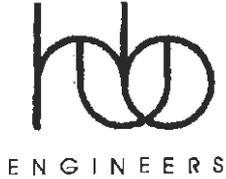
5.0 **Reporting.** Dam Operators shall conduct both routine and special inspections associated with the specific dam under their supervisory oversight. These reports shall be examined and summarized in the Dam Inspection Report as required by the Oklahoma Water Resources Board.

- 5.1 Routine Inspections – shall be performed in accordance with the dam's individual classification as established by the Oklahoma Water Resources Board:
 - 5.1.1 High Hazard – shall be inspected monthly and the Routine Inspection Report (RIR) turned into the Dam Safety Program Coordinator;
 - 5.1.2 Moderate Hazard – shall be inspected quarterly and the Routine Inspection Report (RIR) turned into the Dam Safety Program Coordinator; and
 - 5.1.3 Low Hazard – shall be inspected semi-annually and the Routine Inspection Report (RIR) turned into the Dam Safety Program Coordinator.
- 5.2 Special Inspections – shall be performed immediately after a natural disaster event, such as a flood or seismic activity, which may have impacted the integrity of the dam.
- 5.3 Regulatory Inspections – shall be performed in accordance with the dam's individual classification as established by the Oklahoma Water Resources Board and submitted accordingly by the 10th day of December in each individual year required by regulation.

To: Thomas Moton Jr., City Manager
From: Norm Stephens, Assistant to the City Manager / Economic Development
Coordinator
Date: May 29, 2014
Re: Old Town Water Modeling and Improvement Plan

Mr. Moton, recently I provided you with a memo (attached) updating you on water and sewer concerns in Old Town. In the memo, staff's recommendation is to pursue a water model study for Old Town as well as a sewer master plan. Since the time of the initial memo, Roger Hughes met with a Jay Updike, President of Holloway, Updike and Bellen, Inc. to discuss the issue.

As a result of their meeting, Mr. Updike provide Mr. Hughes a proposal for performing a detailed water model of the Old Town water system along with recommending improvements to provide adequate fire protection. The cost for the study is \$24,700.00 and the study results should be received by the City of BA in 105 days. Tom Hendrix has identified sufficient monies in the existing Engineering Department's budget to fund the study. With your permission Mr. Hendrix will work within protocol to get the study underway. I am including a copy of the proposal for "scope of work" received from Mr. Updike.



HOLLOWAY, UPDIKE AND BELLEN, INC.

816 East Side Boulevard
Post Office Box 1643
Muskogee, Oklahoma 74402
(918) 682-7811
(918) 682-4551 Fax

May 20, 2014

Roger Hughes
Engineering and Construction
City of Broken Arrow
P.O. Box 610
Broken Arrow, OK 74012

Re: Old Town Water Modeling and Improvement Plan

Dear Mr. Hughes:

This letter is our proposal for performing a detailed water model of the "Old Town" water system and recommending improvements to provide adequate fire protection.

A. General

The "Old Town" area is one square mile bordered by Kenosha, Houston, Elm Avenue and Lynn Lane. Most of the water system in this area is aged cast iron pipe 6" and smaller. These lines are not providing adequate fire flows to existing and proposed high value structures along and each side of Main Street. Increasing commercial development in this area has revealed this lack of adequate fire protection.

B. Scope of Work

1. Prepare for and conduct a kick-off meeting with the City to discuss the study goals, objectives, proposed developments and study schedule.
2. Update the water distribution model in the "Old Town" area including pipe locations, pipe sizes, pipe materials, degree of tuberculation (C factor) and fire hydrant location. Run the entire model with the updated "Old Town" system.
3. Analyze available field fire flow tests conducted in the area. Run the model to determine available fire flows at existing fire hydrants. Calibrate the model using field fire flow data.
4. Prepare a contour map with "fire flow contours" showing the existing available fire flows in the project area.
5. Develop alternatives for increasing the available fire flow in existing and proposed commercial areas and to provide adequate fire flows in residential areas.

6. Prepare "fire flow" contour maps of available fire flows for the various alternatives.
7. Conduct a meeting with the City to evaluate the fire flow maps and Improvement alternatives and to select an alternative for further evaluation.
8. Prepare cost estimates and a draft improvement plan for the recommended alternative. Furnish City with 8 copies of the improvement plan, existing fire flows and proposed fire flows in report form.
9. Receive comments on the improvement plan and submit 10 copies of the final plan in report form.

C. Items to be Provided by the City

As available the City will provide the following:

1. Current map of the water system in the project area showing pipe locations, sizes, pipe material and fire hydrant locations.
2. Fire flow test reports from the City of Broken Arrow Fire Department.
3. Location and required fire flows for proposed development.

D. Proposed Fees

Our proposed fees for the above Scope of Work are as follows.

Paragraph	Scope	Fee
B.1	Kick-off Meeting	\$1,200.00
B.2	Map Update and Model Run	3,500.00
B.3 & 4	Existing Fire Flow Analysis, Calibration and Fire Flow Map	4,500.00
B.5, 6 & 7	Development of Alternatives, Proposed Fire Maps and Meeting	8,000.00
B.8 & 9	Draft and Final Reports	7,500.00
Total Proposed Fee		\$24,700.00

Mr. Roger Hughes
May 20, 2014
Page Three

E. Time of Performance

We agree to complete the following tasks with the following schedule.

Scope Item	Days from Receipt of Information
B.2, 3 & 4	60
B.5 - 9	45

We look forward to working with you on this study.

Sincerely,

HOLLOWAY, UPDIKE AND BELLEN, INC.

Jay Updike
President

JU:ms 12BAWTRMOD

AMENDMENT NO. 2

**AMENDMENT TO CONTRACT
CITY OF BROKEN ARROW
COMPREHENSIVE WATER MODEL UPDATE**

**ARCHITECT/ENGINEER CONTRACT NUMBER 13505
BETWEEN HOLLOWAY, UPDIKE AND BELLEN, INC. AND
THE CITY OF BROKEN ARROW**

- 1. Architecture/Engineering Firm:**
 - a. Name: Holloway, Updike and Bellen, Inc.
 - b. Telephone No. (918) 682-7811
 - c. Address: P.O. Box 1543, Muskogee, OK 74402

- 2. Project Title and Location:** Comprehensive Water Model - Old Town Detailed Model and Improvement Plan

- 3. Contract Amendment for:** Provide detailed model of the "Old Town" in order to simulate existing conditions and recommended improvements for providing adequate fire protection.

- 4. Contract Data:**
 - a. Amendment No. 2 will be performed for a lump sum fee of twenty two thousand five hundred dollars (\$22,500.00).

- 5. The City of Broken Arrow (called BA), represented by the City Manager, and the Architect/Engineer firm, identified in paragraph 1 (called the A/E) agree to perform this Amendment No. 2 to the Contract in strict accordance with the clauses, provisions, and the documents identified as follows, all of which are made part of the Contract. In the event of conflict, these documents shall be interpreted in the following order:**
 - a. This 2nd Amendment to the Contract
 - b. Amendment No. 1 to the Contract
 - c. The Contract
 - d. Special Provisions set out in the Contract
 - e. General Provisions set out in the Contract
 - f. A/E's Letter Proposal (Attached)

- 6. Amendment approved by the City Manager on:** _____

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed by their duly authorized officers or representatives on the dates set forth below.

Approved as to form:

CITY OF BROKEN ARROW

City Attorney

By: _____
Manager

Attest:

Secretary

HOLLOWAY, UPDIKE AND BELLEN, INC.

Date _____

By: _____
Jay Updike, President

Attest:

Corporate Secretary (Seal)

Date: _____

VERIFICATION

State of Oklahoma)
) ss.
County of Tulsa)

Before me, a Notary Public, on this _____ day of _____, 20____, personally appeared _____, known to me to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

My Commission Expires:

Notary Public



May 30, 2014

Dr. Kirk Hartzler, EdD
Superintendent
Union Public Schools
8506 E. 61st Street
Tulsa, OK 74133-1926

Dear Dr. Hartzler,

Thank you for the opportunity to meet with you on May 20, 2014. As we discussed, I desire to strengthen the working relationship between the leadership of Union Public Schools and the City of Broken Arrow. I look forward to us meeting again and forging a strong relationship. Please do not hesitate to contact me if the City of Broken Arrow can be of service to you and the school district.

Kindest regards,

A handwritten signature in blue ink, appearing to read "Tom", is placed above the printed name of the City Manager.

Thomas M. Moton, Jr.
City Manager

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To: Thomas M. Moton, Jr., City Manager
From: Scott Esmond, Director Recreation, Parks, Cultural Affairs & Tourism *SE*
CC: Jeff Jenkins, Assistant City Manager
Date: May 20, 2014
Re: Rose West Park a/k/a Dog Park Status

The initial funding for the Rose West Park is provided by the STCI Fund in the amount of \$100,000. I spoke with Tom Cook and he advised that the funding will rollover to FY '15 via a budget amendment. It is planned that this funding source will be used to provide fencing and possibly a few other amenities, i.e. drinking fountains for humans and dogs, park benches, signage, trash containers, and dog waste containers. If any funds remain, I plan to use them for an irrigation system. Parking will be provided by the Liberty Parkway Trailhead that is already adjacent to the site. Restrooms will be provided by porta-jons. This will provide for basic amenities so that the park can be utilized.

The Engineering and Construction Department is in the process of getting revised final plans for Rose West Park from the design firm Crafton Tull. The revised final plans are expected in the next couple of weeks. Since this property is in the floodplain we are required to get a variance from the zoning code, which prohibits chain-link fence in the floodplain. Once we have the revised final plans a variance request will be made through the Planning Department with the final decision being made by the Board of Adjustment.

After we receive the variance from the Board of Adjustment my department will begin work on the site.

Please contact me if you have any questions,

Respectfully submitted.

INTEROFFICE MEMO

To: Thomas Moton Jr., City Manager

From: Norm Stephens, Assistant to the City Manager / Economic Development
Coordinator

Date: May 9, 2014

Re: Legislative Report

Please find attached Legislative Report from April 20th – May 1st, 2014 provided by Terri Cleveland.

Legislative Report
April 20th – May 1st, 2014

Another legislative deadline has come and gone. Bills now needed to be heard in conference then on the floor of both Houses. The Senate would like to convene by May 16th, but with all the in-fighting they just might go till May 23rd. Anything can happen at this time in session. Language can be slipped into bills that we will have to fight to stop. Could be turbulent waters ahead.

The following is a current statue of where our issues are at this point in session:

INITIATE

Police and Fire Grievance Arbitration – SB 1924 - by Sen. Brian Crain, R-Tulsa and Rep. Steve Martin, R-Bartlesville, requires all collective bargaining agreements entered into on or after the effective date of the bill to include a provision specifying the collective bargaining agreement does not apply to police officers that were found to have used excessive force in performing their duties and were terminated for that act. The bill permits any officer seeking relief to appeal his or her termination for use of excessive force to petition the district court. The bill establishes that the officer may be eligible for reinstatement if the court determines such termination was based on an arbitrary, capricious, or any other basis prohibited by law. *Action taken: Pulled bill from the House Public Safety conference committee. Did not have the votes to pass out of committee and CTAG did not want the bill to die in the House. We will be able to bring this legislation back in another session.*

Moto Vehicle Fees to Municipalities -- HB 2185 - by Rep. Mike Jackson, R-Enid, modifies language related to motor vehicle collections. *Action taken: Failed deadline, DEAD.*

Municipal Emergency Spending – HB 3251 - by Rep. Fred Jordan, R-Jenks and Sen. Mike Schulz, R-Altus, amends the provisions of the Public Competitive Bidding Act of 1974 with reference to notice and bids, making them not apply to contract less than \$50,000 during a declared emergency. *Action taken: Title still on, committee substitute passed off the Senate floor now on the House floor. On agenda to be heard sometime in the next 3 weeks.*

SUPPORT

Volunteer Firefighter Age Cap – HB 3252 - by Rep. Fred Jordan, R-Jenks, allows the ability of a fire department to engage the services of a volunteer firefighter who is not required to be a member of the retirement system. *Action taken: Failed deadline, Dead.*

Excessive Force Lawsuits – SB 1503 - by Sen. Gary Michael Stanislawski, R-Tulsa and Rep. Randy Grau, R-Edmond, modifies the definition of "tort" in the Governmental Tort Claims Act to remove a reference to violations "general" law and replace it with "common" law and to add 'the Constitution, statutes, or regulations' of the state. The bill also removes the exemption from loss or claim from individuals not in the custody of the Department of Corrections for the use of excessive force. The bill also removes the exemption from loss or claim for excessive force for injuries by a juvenile detainee to any other juvenile detainee. *Action taken: Failed deadline, Dead.*

Mental Health Transportation Cost – HB 2842 - by Rep. Charles McCall, R-Atoka and Sen. Frank Simpson, R-Ardmore, amends reimbursement from the Department of Mental Health and Substance Abuse Services will be available based upon the salary of the sheriff or officer, calculated by the number of hours services where provided. The bill does not prohibit the department from contracting with a third party provider for services in the bill. *Action Title Failed deadline. DEAD.*

Tax Commission Sales Tax Refund - HB1875, by Rep. Charles McCall, R-Atoka and Sen. Clark Jolley, R-Edmond, amends language relating to revenue, taxation and the apportionment of sales tax revenue. *Action taken: Amended by both the House and the Senate, title off, in House GCCA Conference Committee. Bill should be moving this week. There are enough signatures to past the bill out of the House GCCA and move the bill to the Senate GCCA Committee.*

Transportation - HB3133, by Rep. Mike Jackson, R-Enid and Sen. Bryce Marlatt, R-Woodward, creates the Municipal Roads and Bridges Revolving Fund and states that for a fiscal year when the balance of the fund is less than \$300 million on July 1, all fees, taxes and penalties collected or received pursuant to the Oklahoma Vehicle License and Registration Act are to be apportioned and distributed by the Oklahoma Tax Commission. The bill defines the manner for apportionment. It directs that in the event monies are available \$50 million are to be apportioned to the Municipal Roads and Bridges Revolving Fund. The bill states the purpose of the revolving fund is to provide advance financing to municipalities for road and bridge construction projects. The bill provides what monies are to be directed into the fund. It allows the monies accruing to the credit of the fund to be budgeted and expended by the Department of Transportation for the purposes of effectuating the provisions of the Municipal Roads and Bridges Revolving Fund Act. The bill outlines what the funds in the revolving fund can be used for. It also grants ODOT additional powers and duties regarding the management of the fund and directs the department to create rules as may be necessary for determining the eligibility and priority of such entities for projects in order to receive advance financing disbursements made from the Municipal Roads

and Bridges Revolving Fund. It allows certain sources of revenue to be utilized to administer the fund including: monies from the revolving fund, advance financing application processing fees; and appropriations from the General Revenue Fund or other fund as may be provided for this purpose. It adds that all funds to be utilized by ODOT are subject to annual appropriation by the Legislature. (Amended by House, Stricken Title, Committee Substitute) *Action taken: Failed deadline. DEAD*

OPPOSE

Prohibit Fire Department Boundary Changes – HB 1115 - by Rep. Wade Rousselot, D-Wagoner and Sen. Roger Ballenger, D-Okmulgee, prohibits a municipal fire department located wholly or partially in a county that has levied a sales tax the purpose of providing funds for a county fire department from modifying the existing service area within which municipal fire protection services are provided unless the modification is approved by the board of county commissioners of the applicable county or counties. *Action taken: Awaiting a hearing in Conference and an Attorney General's Opinion. (NO STATUS CHANGE)*

Uniform Building Code Commission – SB 417 - by Sen. Dan Newberry, R-Tulsa and Rep. Mark McCullough, R-Sapulpa, clarifies language related to the Oklahoma Uniform Building Code Commission. The bill defines a full term of commission office to be the completion of a full four-year term of appointment. The bill amends appointed members will continue in office until a successor is appointed, notwithstanding term limitation and it does not consider full or part-terms to be counted for term limits. The bill also provides that the commission has the power and duty to establish a training and certification process for all residential and commercial building code inspectors. It provides that each inspector operating in this state on behalf of any state agency or any municipal or county office will be required to complete training and be issued a certification for inspections by the commission on and after January 1, 2015. The bill requires the commission to promulgate rule concerning the training and certification applications, qualifications and procedures. The bill authorizes the commission to establish by rule any application and certification fees and a schedule of administrative fines for violations of training requirements, failure to be certified, or violation and to establish any necessary rules, forms and procedures to implement, administer and enforce the provisions of the bill. The bill amends, in terms of fees, such will be paid to the Uniform Building Code Commission within 30 days and it removes the past due payment charges. The bill amends nothing in the act will prevent the Oklahoma Uniform Building Code Commission from offering incentives for prompt payment. *Action taken: Title back on. Passed off both the House and the Senate floor. Sent to the Governor.*

INTEROFFICE MEMO

To: Thomas Moton Jr., City Manager

From: Jeff Jenkins, Assistant City Manager

Date: May 30, 2014

Re: Update on Staff Meetings with Tulsa Shock and Hockey Facility Group

This past week staff was in contact with two different groups concerning their interest in community involvement and facility options in Broken Arrow.

The Tulsa Shock, a WNBA club, met with city staff about their thoughts for further community outreach efforts and possible relocation of some of their operations. In the outreach efforts, they want to become more involved in youth sports in our area. Staff provided them with contacts for our basketball associations. They plan on organizing camps and other events for the youth in our community. The team requested information on particular types of buildings in Broken Arrow, as they have interest in conducting some of their basketball practices and operations in Broken Arrow. Staff provided them with a list of options and locations for them to consider.

Staff has also made contact with a group interested in building a hockey facility in Broken Arrow. This group expressed they may want the city to donate land for the facility and they specifically noted potential park project lands as possible location options. We contacted the group to set up a meeting date to discuss their business model, vision for the facility, and how best we could work together moving forward. We are waiting to hear back from them on possible meeting dates.

Thank you,



Jeff Jenkins
Assistant City Manager

2. GENERAL CORRESPONDENCE / NOTIFICATION

To: Thomas M. Moton, Jr., City Manager 

From: Anthony Daniel, Utilities Director

Date: May 23, 2014

Re: Utilities Department Monthly Report – April 2014

	Apr. 2014	Apr. 2013	% Change
Water Purchased and Distributed			
OOWA – Water Purchased	88 MG	249.5 MG	-65 %
Water – Sold	233 MG	205.4 MG	13.4 %
[Verdigris WTP came on line April 10, 2014]			
Wastewater Treated			
Lynn Lane Plant	120.5 MG	137.4 MG	-12.3 %
Haikey Creek Plant (BA)	130.4 MG	167.2 MG	-22 %
Haikey Creek Plant (Tulsa)	98.5 MG	178.1 MG	-45 %
Water Distribution			
Tap and Meter Sets	64	49	30.6 %
Meters Repaired/Replaced	165	331	-50.2 %
Line Locates Done	472	272	73.5 %
Service/Meter Leaks	26	326	-92 %
Distribution Leaks Repaired	4	10	-60 %
Fire Hydrants Repaired/Replaced	38	17	55 %
New Water Line Installed	654 lf	1731 lf	-62.2 %
Sanitary Sewer Collection			
Sewer Line Blockages	7	8	-12.5 %
Sewer Line Cleaned	1100 lf	6600 lf	-83.3 %
Sewer Line Repaired	0 lf	65 lf	----- %
Line Locates Done	52	272	80.9 %
Sanitary Sewer Overflows	4	7	-42.9 %
New Sewer Line Installed	0 lf	0 lf	---- %
Other			
Grease Traps Inspected	22		--- %

To: Thomas M. Moton, Jr., City Manager

From: Brandon C. Berryhill, Acting Chief of Police *BCB 141*

Date: May 28, 2014

Re: BAPD Month in Review – May 2014

After another great Rooster Days!! Much thanks to all of those who shared the event with their families, worked shifts downtown or worked shifts in support.

Four Captains transferred assignments in May. Captain Sipes moved to First shift patrol, Captain DuFriend moved to Third shift patrol, Captain Gilstrap moved to the Support Division and Captain Clark moved to the Office of Professional Standards.

The Broken Arrow Police Reserve Academy graduated 12 new reserve officers in May. The graduation was held at the PAC.

Reserve Officers continue to cycle through the shift to complete their Field Training.

Reserve Officers staffed Camp Bandage and continue to fill staffing requirements for upcoming Special Events.

IS & Steve Bradley accomplished getting the new AS400 migrated to the PSC Thursday morning, without any major disruption. This means CAD is completely under the roof of the Public Safety Complex, allowing for better system interface and operability. We should see far less disruption issues with CAD now that we're completely moved to the PD.

Capt. Shea represented the OACP Accreditation Commission at the presentation of Certification Level I Award to Tulsa Public Schools Campus Police.

Broken Arrow Police Honor Guard members participated in Police Week commemorative events honoring those officers who lost their lives in the line of duty.

Susan Eaton, current 911 call-taker, was chosen for the open telecommunicator position in May. She'll be transitioning to that new assignment effective June 2nd.

INTEROFFICE MEMO

To: Thomas Moton Jr., City Manager

From: Norm Stephens, Assistant to the City Manager / Economic Development
Coordinator

Date: May 30, 2014

Re: Tulsa's Future Report

Mr. Moton, I am attaching the Tulsa's Future Regional Economic Development report for April 1 – April 30, 2014.



**Regional Economic Development Activity Update
April 1- April 30, 2014**

Announcements & New Jobs Created

- New Jobs Created
 - Number of new jobs created per month and year
 - Number of jobs greater/less than \$50,000

	Greater than \$50,000	Less than \$50,000	Total Jobs
For the month of April 2014	247	0	247
Total for 2014	952	149	1,101
Total for 2013	2,484	3,514	5,998
Total for 2012	2,425	1,078	3,503
Total for 2011	<u>4,100</u>	<u>4,105</u>	<u>8,205</u>
Totals for 2011-2014	9,961	8,846	18,807

Business Attraction

Describe the efforts and results to attract business with regards to:

- New Prospects & Site Visits/Number of New Prospects and/or Site Visits
 Current Month: 1
 Year to Date: 9
 Total 2013: 20

- New Projects – Proposals Submitted
 Current Month: 3
 Year to Date: 18
 Total 2013: 62

- Lead Development
 Current Month: 10
 Year to Date: 34
 Total 2013: 75

Lead Development Companies: Smith & Nephew Richards, Inc., HeartWare International, Clyde Bergemann EEC, Tecnocap LLC, MTD Products, Mueller Water Products, Nordson Corporation, PowerVerde, Inc., FEI Company, Masimo Corporation

ID	Start Date	Number of Jobs	Status	Target Industry	Community	New Business/Expansion
304	4/30/2014	750	Active	Regional Headquarters	Tulsa Region	New
303	4-17-2014	180	Active	Advanced Manufacturing	Tulsa Region	New
302	4/17/2014	225	Active	Advanced Manufacturing	Tulsa Region	New

Regional Partner Scheduled Appointment Opportunities

We would like to extend the opportunity for you to attend any or all of these scheduled appointment events. We will be setting up scheduled appointments with site consultants and corporate real estate executives in the targeted cities below. In order to participate, we ask that you inform us of your participation by the deadline and arrange for your individual travel expenses.

Scheduled Appointments for 2014

Destination	Participation Deadline	Scheduled Appointment Dates	Communities Attending
Chicago, IL	February 11	March 19-20	
Minneapolis, MN	February 24	March 25-27	-PSO
Phoenix, AZ	March 21	April 22-24	
Atlanta, GA	July 1	August 5-7	
Dallas, TX	July 17	August 19-21	
Charlotte/Greenville, NC	August 15	September 15-18	
Denver, CO	August 22	September 24-25	
Chicago, IL	September 4	October 7-9	
Phoenix, AZ	August 15	September 16-17	

Business Retention & Expansion

- Existing Company Visits
 Current Month: 83
 Year to Date: 244
 Total 2013: 536

Upcoming Meeting Dates in June

- **Tulsa's Future Regional Partner "Meet the Consultant"**

Featuring: Betty McIntosh, Managing Director, Business Incentives Practice, Cushman Wakefield, Atlanta, GA

Date: Wednesday, June 18, 2014

Time: 12:00 p.m. to 1:30 p.m.

Location: Tulsa Regional Chamber, Plaza Level, JD Young Conference Room, One West Third Street, Tulsa

Ms. McIntosh brings more than 20 years of experience in assisting major U.S. and international clients in making strategic decisions related to expansion. She has represented clients in automotive, consumer markets, industrial products, pharmaceuticals, healthcare, steel, telecommunications, IT solutions, and retail industries, including Porsche, Primerica, Siemens, Namasco Steel, Graphic Packaging, IVC, Nash Finch Company, Tiger Direct, Honda, The Gillette Company (Duracell), Engelhard, Alkermes, Home Depot, Seton Healthcare Systems, ThyssenKrupp, Knology, and Intec. She has conducted site selections and assisted in developing financial strategies for numerous clients, including Hyundai, DaimlerChrysler, Mobis, Ford Motor, Benteler Automotive, Fidelity National Financial, StrideRite, Titleist, Footjoy, Johnson and Johnson, and Remington Arms. She is nationally recognized as an expert on economic development issues and has been quoted in publications including The Wall Street Journal, Tax Management, and CFO Magazine. She is currently Editor-in-Chief of the Journal of MultiState Taxation and Incentives.

Regional Partner Meetings

- August 7, 2014 – Broken Arrow Chamber of Commerce
- November 6, 2014 – The Muskogee City / County Port Authority

All Meetings 12:00 p.m. to 1:30 p.m.

City of Broken Arrow

MAY 27 2014

City Manager's Office



KRISTIN PECK

VICE PRESIDENT – PUBLIC AFFAIRS

May 23, 2014

Mr. Thom Moton
City Manager, Broken Arrow
220 S. First Street
Broken Arrow, OK 74012

Dear Mr. Moton,

I am writing to inform you of a customer equipment change that will affect someone in your community. Similar to previous communications, Cox Communications and Cox Business will soon be migrating additional channels to the Switched Digital Video (SDV) platform. Switched Digital Video technology allows Cox to maximize our network capacity, enabling us to offer even more high-definition channels and entertainment options to our customers.

As with other advanced services we offer such as On DEMAND and the Interactive Programming Guide, SDV technology requires customers to use a device capable of two-way communication in order to access the SDV channels. One-way devices with CableCARDS (some referred to as Digital Cable Ready [DCR] devices) are not capable of two-way communications. If a customer owns a DCR device, they have a couple of options they may choose from that will allow them to continue to receive all of the channels they currently enjoy.

First, if a customer owns one of the devices listed below, Cox is able to provide them with a Tuning Adapter free of charge that will allow them to continue receiving all of their existing channels with their device. This adapter will make their device compatible with the SDV platform. Tuning Adapters are currently available for the following devices:

- Tivo (Series 3, Tivo HD and HD XL, Tivo Premiere, Premiere XL and Premiere Elite)
- Moxi HD DVR
- Windows Media Center OCUR
- Ceton InfriniTV-4 and InfriniTV-6
- HD HomeRun Prime

Tuning Adapters are easy to install and self-installation kits and tuning adapters can be picked-up at a local Cox retail center. For the customer's convenience, we will include a list of Cox retail locations in the notification letter.

If the customer's DCR device is not listed above, it may not be compatible with the Tuning Adapter. As an alternative for continued access to the switched channels, Cox can offer these customers, for lease, a digital or high-definition receiver. These receivers enable access to the channels listed on the back of this page as well as other two-way services including On DEMAND and the Interactive Program Guide. Cox will offer either receiver for the same price as a CableCARD for 12 months at \$1.99 a month. Customers can call us and refer to special offer code CBLCARSDV.*

If a customer does not request a free Tuning Adapter, or lease a receiver, they will not be able to view the switched channels with their one-way DCR device on or after June 25th. There are approximately 2,500 customers statewide with CableCARD technology to which this letter refers.

If you have any questions, please feel free to contact me directly at (405) 286-5288. If you receive calls or questions from any Cox customers, please refer them to call us at (918) 286-7251.

Thank you,

A handwritten signature in black ink that reads "Kristin Peck".

Kristin Peck
Regional Vice President, Public Affairs
Cox Communications

Beginning on or after June 25, 2014 the channels listed below will require either a two-way digital receiver or a device compatible with the Tuning Adapter for viewing. Customers may contact Cox today 918-286-7251 for a discounted Cox receiver.

Channel #	Channel Name
72	National Geographic
103	ID
165	Hallmark Channel
242	Fusion
243	DIY
244	Bloomberg
245	H2
250	Outdoor Channel
252 and 285	NFL Network
253	ESPNU
254	ESPNNews
255	ESPN Classic
257	Discovery Fit & Health
265	Fox Sports 2
269	Cox Sports TV
270	Sportsman Channel
302	HBO Signature
697 and 1331	NFL RedZone HD
701 and 1501	In Demand HD
717	CBS Sports HD
719	ESPNNews HD
725 and 1320	MLB Network HD
726	NBA TV HD
727	NHL Network HD
729	Tennis HD
738	Science HD
757	BIO HD
762	BBC America HD
764	WE tv HD
768	Destination America HD
773	Disney XD HD
798	EPIX HD
800	Encore East HD
811	HBO2 East HD
821	MoreMAX HD
837	TMC HD
1350	Univision Deportes HD

*Offer expires 12/31/14 and is available only to residential customers in Cox service areas who currently receive the service level with the channels listed with a CableCARD. After 12 months, the HD or standard digital receiver regular rate will apply. Other equipment fees, installation fees, taxes, franchise fees and other fees and surcharges are additional. Televisions and other consumer owned devices equipped with a CableCARD may require a digital set top receiver in order to receive all programming options offered by Cox Advanced TV. Terms and conditions are subject to change. Other restrictions may apply. ©2014 CoxCom, Inc., d/b/a Cox Communications Oklahoma. All rights reserved.

**Verdigris Water Treatment Plant
Media Tour
Wednesday, May 28, 2014**

AGENDA

KF

Conference Room	Welcome	Anthony Daniel, Utilities Director
	Safety briefing	Jimmy Helms, Plant Manager
	Explain microfiltration	
Control Room	Operations overview	
Membrane Room	View membrane racks	
West Tank Room	Explain chemical process	
	View high service station, etc. (outside)	
Pre-treatment Basin	Explain pre-treatment process	Roger Hughes, Project Manager
Pre-sedimentation Basins (Drive to location)	Explain sedimentation process	
Raw Water Pumping Station, Verdigris River (Drive to location)	Explain how raw water is harvested, demonstrations	
TBD	Interviews	Anthony Daniel, Utilities Director; Larry Dearing, Construction Manager



Verdigris Water Treatment Plant

System Overview

The Verdigris Water Treatment Plant (WTP) utilizes state-of-the-art microfiltration (MF) membrane technology for the main treatment process, coupled with chlorination for the primary disinfection process. The plant uses chloramine as the secondary disinfectant in the distribution system.

Raw water is drawn from the Verdigris River. It is pumped through a 42-inch raw water pipeline into one of two Pre-sedimentation Basins. These basins allow dirt and debris to settle to the bottom.

Next, water from the Pre-sedimentation Basin flows by gravity into the Pre-treatment Basin. Chemical processes known as coagulation and flocculation force impurities to clump together, further removing particulate matter from the water. The pre-treatment system utilized at the WTP greatly reduces the amount of time needed for flocculation, allowing water to be treated within 30 minutes, rather than the two to four hours needed when using conventional methods. The size of the basin is also diminished, allowing for a much smaller footprint that lowers land and material costs.

The pre-treated water is now pumped into the Membrane Filtration System, where it goes through an advanced purification process. Each filter module contains 6,350 individual fibers, or “straws”, with microscopic holes that filter out impurities as the water moves through the membrane tubes and fibers. These microfiltration (MF) membranes have pores approximately 0.1 microns in size. The MF membranes can filter out Giardia, Cryptosporidium and other microorganisms.

As the filtered water makes its way to the six (6) million gallon Clearwell (a finished water holding tank), chlorine is added, then ammonia, which converts the chlorine to chloramines. Both chemicals are commonly used to treat water and are safe to consume.

Finished water is sent into Broken Arrow through the High Service Pump Station, which operates on four 900 horse power pumps. The City will conduct a series of on-going tests throughout the year to ensure customers are receiving clean and safe drinking water.



Verdigris Water Treatment Plant

Quick Facts

Cost

- Original Contract Amount: \$56,831,875
- Current Contract Amount: \$58,107,000

Labor/Materials

- 500,000 man hours
- 12,000 cubic yards of concrete
- 10 miles of pipe

Engineer/Designer

- HDR Engineering, Dallas, TX

Construction Contractor

- Crossland Heavy Contractors, Columbus, KS

Location

- 6670 S. 361st E. Avenue (near 71st Street and 361st E. Avenue)



Verdigris Water Treatment Plant

Major Features

Raw Water Pump Station

- Two 36-inch diameter intake pipes in Verdigris River oxbow.
- Two 6-inch diameter air lines for cleaning intake screens with air burst.
- Three 250 horse power (hp) pumps, each capable of pumping 10 million gallons per day (mgd).

Pre-sedimentation Basins

- Normal operating level: elevation 616 feet above sea level.
- West Basin surface area: 30 acres; 176 million gallons storage; maximum depth of 27.5 feet.
- East Basin surface area: 20 acres; 87 million gallons; maximum depth of 17 feet.
- Combined storage capacity of 263 million gallons.

Membrane Building

- 31,356 square feet.
- Plant has 10 membrane “racks”, all identical. Each rack is rated at approximately two (2) mgd. Thus the plant is rated for 20 mgd. During summer months when water temperatures are warmer, they can easily filter 28 mgd.
- Each rack has 115 filter modules (tubes) each containing 6,350 individual fibers. Each filter module can filter 17,400 gallons per day. Service life of each filter module is estimated to be 20 years.
- Three Hypochlorite Generators: The plant makes its own chlorine solution for disinfectant used in the treatment process. It makes this solution from salt brine and softened water. Two generators will operate the plant when running full capacity, with one backup for use during maintenance and repair of a generator. This method increases safety, in that chlorine gas does not have to be transported over public highways or unloaded by City employees. Chlorine gas containers are not stored on site.



Verdigris Water Treatment Plant

Major Features (continued)

Clearwell

- Six (6) million gallon pre-stressed concrete tank.
- Water level inside when full is 40 feet.

High Service Pump Station

- Pumps water into the City's distribution system.
- Four (4) 900 hp pumps. Each pump can supply over 10 mgd into town. There are slots available to install three (3) additional pumps for future expansion.
- Water pressure in the pipes leaving the plant is 130-150 psi, depending on how much water is being supplied.

Emergency Generators

- There are three two (2) megawatt diesel powered generator sets on site located near the High Service Pump Station.
- The entire treatment plant can be operated on emergency generators in the event of a power failure, ensuring the water system operates and can continue to supply water to the City.

3. SPECIAL EVENTS / ACTIVITIES

Flasch, Krista



From: Flasch, Krista
Sent: Wednesday, May 28, 2014 1:31 PM
To: Flasch, Krista
Subject: June 5th Ribbon Cutting for Verdigris Water Treatment Plant, Broken Arrow, OK

GRAND OPENING EVENT!

Please join the City of Broken Arrow as it celebrates the completion of the new Verdigris Water Treatment Plant.

A Ribbon Cutting Ceremony will be held Thursday, June 5, 2014 at 4:00 PM.

Please RSVP by May 30th to 918-259-8419 or dfolk@brokenarrowok.gov.

Directions

The plant address is:

6670 South 361st East Avenue
Broken Arrow, OK

The Water Treatment Plant is in Wagoner County. Cross streets are 71st Street and 361st East Avenue. Go east on 71st Street to 361st E Ave. Head north. The plant will be on your left in a half mile.

On-site staff will guide you to a parking spot. Look forward to seeing you there!

Krista Flasch

Director of Communications

City of Broken Arrow

Office: 918-259-2400 ext. 5309

Mobile: 918-409-7771

