Association of Metropolitan Water Agencies

Gold Award for Exceptional Utility Performance

2017 Application for City of Oklahoma City Utilities Department





















Utility Profile

The City of Oklahoma City Utilities Department provides water, wastewater and solid waste services to residential, business and industrial customers across Central Oklahoma. We are the state's largest provider of drinking water, serving than 1.2 million people through retail and wholesale service connections. Nineteen cities and rural water districts contract with Oklahoma City to receive drinking water, raw water, and/or wastewater services. The city owns and maintains the water system in two of the 19 communities, and bills each customer individually for retail water service, in addition to providing systems oversight and retail customer service in Oklahoma City limits. We also provide solid waste collection services to residential and select business customers, including weekly refuse and recycling, and monthly bulk waste services. There are currently 206,630 water, 194,854 wastewater, and 202,000 solid waste accounts.

The City directly owns and operates four of its seven water supply reservoirs, and contracts with the U.S. Corps of Engineers for two reservoirs, and a contract with the U.S. Bureau of Reclamation for another reservoir. The Oklahoma City Water Utilities Trust (OCWUT) funds the costs of meeting these responsibilities. Utilities Department staff performs all land management for the City-owned reservoirs and oversees lake level management responsibilities. Local water customers are served through three man-made reservoirs located within the Oklahoma City limits. The reservoirs, Lake Hefner, Lake Overholser and Lake Stanley Draper, also provide a bounty of recreational opportunities for residents and visitors. The City of Oklahoma City spans area of 621 square miles, and our treatment and distribution system consists of three water treatment plants, five wastewater treatment plants, 3,839 miles of water pipe, and over 2,909 miles of sewer pipe.

Because of Oklahoma City's unique geographic profile as a major metropolitan area with few natural water sources, city leaders have taken measures to secure our water footprint by acquiring rights to surface water reservoirs in the northwest and southeast regions of the state. These water supplies ensure continuity of service during drought conditions and provide adequate water to meet growth projections through 2060.

The City of Oklahoma City created the Oklahoma City Water Utilities Trust (OCWUT) and the Oklahoma City Environmental Assistance Trust (OCEAT) to provide policy oversight and long-term financing for the water/wastewater and solid waste systems. The approved fiscal year 2018 Utilities budget is \$494.5



million, with \$265.2 million for the water utility, \$160.8 million for wastewater utility, and \$68.5 million for the solid waste utility. OCWUT attained a bond rating of AAA with Standard & Poor's in 2008 and Aaa with Moody's Investors Service in 2015. Both ratings were reaffirmed during our last revenue bond issue in fall 2016. OCEAT attained a bond rating of AAA from Standard & Poor's in 2013, and was recently reaffirmed in spring 2017. The ratings were achieved based upon Oklahoma City's long history of stable political climate, incremental fee adjustments, sound financial management, and demonstrated progress implementing its service and capital plans.

The City of Oklahoma City operates under a Council-Manager form of government, with the mayor and eight elected representatives comprising the City Council. Each Council represents a separate geographic ward of the city. The Council is responsible for setting City policy and approving the annual budget, as well as appointing a city manager to carry out the City's day-to-day operations. The mayor, city manager and one council person each have a seat on the OCWUT and OCEAT trusts.

Oklahoma City sits in the geographic center of Oklahoma, and is a humid-subtropical climate region divided by Cross Timbers and prairie lands. The City typically experiences all four seasons annually, with shortened spring and fall due to the state's location between two major north and south jet streams, which contributes to severe weather outbreaks. U.S. climate data shows Oklahoma City experiences an average high temperature of 72.2 degrees and an average low temperature of 50.8 degrees. During the summer, it is not uncommon to experience multiple consecutive days with temperatures at or above 100 degrees Fahrenheit. While average annual rainfall for the city is 36.46 inches, the city has experienced prolonged periods of drought, the latest between 2010 and 2013.

II. Mission and Values

The mission of the Oklahoma City Utilities Department is to provide water, wastewater and solid waste services to metro area residents, businesses and other communities so they can enjoy public health protection through safe drinking water and environmentally-safe waste disposal.

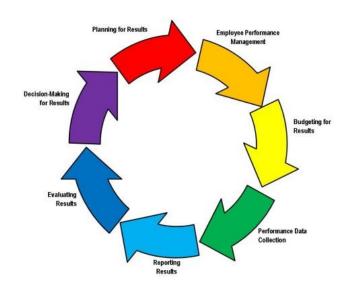
As part of the City of Oklahoma City, we value public service and are committed to providing competent, dependable and efficient service to all by knowing our jobs and our City. We value dependability and accountability in our relationships, as well as tactful, useful, informative and honest communications among ourselves and with our community. We honor diversity by respecting our customers and fellow employees, and commit to continuous improvement and growth through visionary, proactive leadership and technology.

III. Keys to Management Success

The Oklahoma City Utilities Department developed six Core Business Initiatives for OCWUT that serve as the department's guiding principles across all utility divisions. They are:

- Customer Service
- Safety
- Water Supply
- System Reliability/Resiliency
- Financial Management
- Regulatory Compliance

These core initiatives guide division managers in developing strategic performance measures to ensure we address customer needs on every level while we maintain, improve, and automate the Utility's growing infrastructure. They also play a critical role



in shaping our Strategic Business Plan, where staff identifies seven key issues for outcome-based strategies: Asset Management, Utility Expansion, Customer Service, Workforce Stability and Development, Modernization, Financial Stewardship and Environmental Stewardship. These issues helped to shape specific target outcomes for each division based upon their line of business.

Outcomes are reported monthly so staff can vigorously monitor progress in their respective areas and make necessary modifications based upon results achieved. Reports for water and wastewater utilities are presented to OCWUT regularly during their twice-monthly meetings, two times per year to City Council, and are factored into our annual budget planning. These performance measures and outcomes are made available to the public via the City's website at www.okc.gov.

Executive management, division managers and mid-level supervisors convene during a team retreat each fall to evaluate the department's mission and purpose, consider external challenges, and identify strategic objectives necessary to meet our performance measures. We then consider capital needs, operating plans and necessary resources to meet our target outcomes. This plan guides the development of our annual budget.

Accomplishments highlighted in the latest Strategic Business Plan from FY 16 include:

- Reaffirmed OCWUT AAA bond rating in January, 2015
- Implemented new two-tier inclining block water conservation residential rates
- Implemented mobile workforce management pilot program
- Converted 46% of Department's eligible fleet to CNG or electric-hybrid vehicles (incl. Solid Watste)
- Opened three water conservation gardens
- Developed and implemented a mobile phone app to increase customer payment options and information access
- Performed feasibility study to connect Utility's two primary treatment systems to increase system resiliency and reliability and expand distribution of treated water.

In addition to internal measures, we work with the City's Finance Department who contracts with the ETC Institute every two years to conduct a citizen satisfaction survey for all City services. These public surveys provide additional information in key areas that support the development of our performance measures, and results are made public via the City's website at www.okc.gov.

To maximize our ability to deliver turnkey customer service to residents, businesses and developers, we are integrating multiple business systems into a single streamlined process, which will enable us to avoid duplication of effort. Systems to be integrated include GIS, SCADA, AVL and SAP. Once implemented, we will be able to consolidate customer information into a single data stream that can be read and used across all fronts by different divisions, including engineering, line maintenance and customer service billing.

The Department utilizes a blend of work management systems based on the types of assets being maintained. The Utility utilizes ESRI's ArcGIS solution for GIS. Due to its seamless integration with Azteca's Cityworks application, Cityworks is used for asset management for all linear assets throughout the service area, while SAP EAM is used for fixed assets which don't reside in GIS.

Another new initiative is to stand up mobile presence of Cityworks, which will provide field employees with real-time access to accurate GIS data and allow them to input work details into the system while in the field. This mobile data entry will customer service representatives more timely and accurate information so they may convey the information to customers over the phone.

Standard Operating Procedures (SOPs) are being written within each section of the Utilities Department. SOPs improve efficiency and production quality to aid in succession planning. SOPs help our employees see inefficiencies to provide better service to our customers.

5. Continual Improvement Management

Survey results from the City's ETC survey as well the measured results of our target outcomes help drive how we prioritize our improvement management process.

When target outcomes showed we were not meeting OSHA's Recordable Incident Rate of 8 FTEs per year, improve our safety record by hiring a consultant to examine field protocols. Upon the consultant's recommendation, we executed a new incident reporting procedure to standardize reports. We've also implemented changes to work field practices to reduce the potential for injury. Because of the size and diversity of our workforce, we are hiring an additional safety supervisor to help manage the program.

Our 2016 strategic outcomes for the number of private development plans reviewed within a two-week period by our engineering division was also falling short of goal. After evaluating our needs in this area, we determined that we not only needed additional engineering support, but better information. We have added funding for new staff to facilitate the program, as well as a new systems integration program, so we can combine our engineering, GIS and billing systems into a single data stream, allowing employees across all work fronts to more quickly assess and provide service to a specific customer.

System and service upgrades to our customer service division are helping to improve outcomes, which were well below our 80% goal of the number of calls answered within 30 seconds. Citing a critical need to improve services in this area, we have not only built a new, more modernized customer service call center, but have upgraded our IVR system to handle a higher call volume, and are combining our Emergency Dispatch and Customer Call Center employees into a single unit to improve communications and provide more timely service to our customers.

Individual employees are encouraged seek improvement through our "Utilities University" program, where we provide education opportunities that can help them meet advancement goals by learning more about the business of the Utility.

VI. Attributes of Effective Utility Management

1. Product Quality

We take seriously our role as an arbiter of public health and are committed to providing safe, clean drinking water to our customers. Our water regularly meets or exceeds requirements set by the Environmental Protection Agency (EPA) and Oklahoma Department of Environmental Quality (ODEQ) for safe drinking water standards. The Department's ODEQ-certified environmental laboratory monitors our water and wastewater systems for regulatory compliance. The laboratory not only saves on operational expenses, but allows us to more quickly respond to issues in order to maintain the integrity of our treatment systems. We collect and analyze drinking water samples from 240 ODEQ-approved locations monthly (sixty collected each week) along our distribution system to increase public health protection through the reduction of potential pathways for system contamination. The number of sites is necessary due to Oklahoma City's geographic area of 621 square miles.

Leadership's commitment to providing safe and reliable water service extends across all fronts of our water quality division. Our Water Quality Division operates and maintains three water treatment plants that that pull from three local reservoirs, which are also maintained by the City of Oklahoma City. All treatment plant staff must acquire and maintain the proper certifications and accreditations as required by the Oklahoma Department of Environmental Quality (ODEQ). Our plant operators must likewise obtain ODEQ operator certification. To ensure and safeguard the

portability of our water to customers, operators conduct process and quality control testing every two hours. Process and control is also continuously monitored using SCADA and the SmartGlance app, which allows department leadership and key engineering staff to monitor and access water production from their smartphones 24/7.

We have made several treatment facility and process upgrades to improve overall system reliability. In 2014, we expanded our Lake Hefner treatment plant to meet current and future demands as addressed in the Water Master Plan. Upgrades include sludge handling modifications, additional clarifiers and filters, a new carbonation basin, a new backwash pump building, and new disinfection system and flow meters. This project also included redundant piping and treatment facilities to allow the plant to continue to operate in the event of maintenance or equipment failure. At the Draper Water Treatment Plant, we enhanced the generators and electrical loop to ensure continuity during severe weather events, made modifications to the superscapers, and added low- and high-lift pump stations. We also upgraded the coagulation and carbonation system to provide a high quality of water supply. Our oldest water treatment plant, Overholser, has been upgraded to ensure its continued use as a redundancy site during high-demand seasons and/or severe weather events. Upgrades included SCADA system integration, new flash mixing, clarifier rehabilitation, filter rehabilitation, lead paint removal from the filter building, new lime system and new storage tank.

Our flushing program allows us to maintain water quality and ensure citizen safety by clearing dead-end lines, testing for chlorine residual and turbidity while also testing fire hydrants. We have also installed corrosion coupon racks at key locations to monitor protection of our pipelines. The flushing program also responds to customer requests, citing a 100% response rate within 24 hours.

CONSUMER CONFIDI



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However, delivering qual and dedication by a team

To ensure transparency to our customers and others stakeholder groups, we publish an annual Consumer Confidence Report which is posted on the City's website, www.okc.gov, so the public at large can see the make-up of their drinking water.

Our quality standards do not only extend to water treatment. We have also won numerous taste tests, including the Oklahoma Water Pollution Control Association (OCPCA) Taste Test in 2016, National AWWA "Best of the Best" Tap Water Taste Test in 2013, in addition to seven SWAWWA (Southwest AWWA) Tap Taste Tests in 1990, 1991, 1994, 2003, 2004, 2006, 2007 and 2011.

VI.2. Customer Satisfaction

The Oklahoma City Utilities Department ranks Customer Service as first among its six Core Business Initiatives, and several of our division performance measures are tied directly to our ability to provide consistent, reliable and quality service to our customers. We value the trust our customers place in us and work to continue building upon that trust in our daily operations.

The Utilities Department works with the City's finance office to implement an annual citizen survey, conducted by the ETC Institute, to assess satisfaction with major city services. Survey results help us identify ways to improve service quality and determine priorities for community planning as part of the OCWUT budget. In the City's 2016 ETC Citizen Survey, citizens cited 80% satisfied or very satisfied with quality and delivery of the water, 76% satisfied or very

satisfied with wastewater services and 67% satisfied or very satisfied with the quality of customer service.

The Customer Service call center's service levels are tracked using monthly performance measures that are tied into the city's budget, and compared to national benchmarking standards. The measures include grade of service, wait time, handle time and schedule adherence. Call quality is maintained through regular monitoring and coaching. The service level of telephone response is included in monthly reports and are later included in annual performance measure outcomes linked to the City's budget process.

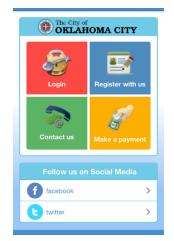
Customer service starts with our ability to address issues and customer needs in a timely manner. Recognizing our own need to improve upon performance standards for customer service as cited by the 2015 and 2016 ETC Survey, we took measures to make improvements by consolidating response staff and upgrading technologies. In 2016, we built a new customer service call center to accommodate our growing Customer Service Division. We also transitioned our 24-hour emergency dispatch employees, who were under our Line Maintenance Division, to Customer Service. This allows us to streamline both system and response communication processes. We have also upgraded our IVR system to improve and increase call handling and reduce wait times.

We offer multiple portals for customers to communicate with us:

- Customers can call 24/7 Emergency Dispatch to report line breaks or outage service issues;
- Customers can call our regular Customer Service line to pay bills, set up or disconnect service, or ask general questions about water quality or service delivery;
- Customers can email us at water@okc.gov with general service questions, billing questions or concerns, or to ask questions about water quality or other utility issues, including solid waste.

We also make available multiple ways for customer to pay their utilities, which are outlined in their monthly Utility bill. We offer both mail and e-mail bill service with a goal to convert all customers to paperless systems. Customers can pay their utility bills online at www.okc.gov, through our call-in IVR program, through the OKC Utilities app, at Western Union locations or over 100 payment kiosks located throughout the metro area, or by setting up automatic payments from their bank account.

The City of Oklahoma City also encourages resident and customer engagement through its various social media streams, including Facebook (City of Oklahoma City - Government), Twitter (@cityofokc) and the Next Door App, which allows us to target specific customers based upon their service area or neighborhood. The Utilities' Public Information Officer uses social media to post information about outages and line breaks, remind customers of water conservation programs, or invite customers and residents to irrigation workshops and



similar programs. The sites are also used to answer customer questions 7 days a week, and address issues and complaints, as warranted. We're currently working to develop a formalized procedure between engineering, dispatch and public information that will expedite outage communications using both social media and text alerts through our Kubra system, where possible.

Understanding that water is essential to public health and is crucial to our residents' daily life, we strive to keep our rates and fees at an affordable level for all customers. For that, we rely upon census information to help us track available discretionary income to residents across the city, and in 2013 and 2014, conducted an income study to help us

determine the potential impacts as we proceeds with implementing its 10-year, \$2.5 billion capital plan, which will require rate increases among our retail and wholesale customers.

When we compared the potential fee adjustment requirements for water and wastewater services to the discretionary income in the latest data, we found we would be able to fulfill our capital improvement program using 8% of their currently available discretionary income.

Cost of Service studies are another way we manage rate affordability while considering our needs to improve upon and expand our water infrastructure. When rate increases are considered, we consider options such as rate smoothing to facilitate the distribution the rate increases over a multi-year period, which helps to prevent rate shock among our customers. We also look for opportunities to create rate structures based upon usage rates.

Knowing our customers also means understanding that many residents may experience financial difficulties from time to time. That is why we partner with the Salvation Army to implement our Help2Others (H20) program, which allows customers to make a tax-deductible donation as an addition to their bill payment to assist low-income families in paying for their water and wastewater services. Monies are donated to the Salvation Army as part of an escrow fund, and then provided to those residents who demonstrate a temporary need for financial assistance. Customers who participate in Help2Others receive a qualified tax exemption through the Salvation Army. We estimate the program helps between 750-1,000 resident accounts per year.

VI. 3. Employee and Leadership Development

While framing the Department's 2008 Strategic Business Plan, leadership noted that nearly 40% of the Utility's most knowledgeable and experienced employees would retire by 2018. We recognized immediately that if not addressed, this significant number of retirements could impair the Department's ability to maintain and improve services. To meet this challenge, we needed to capitalize on existing institutional knowledge by creating new opportunities for education and advancement among existing employees. Our goal was to broaden employees'





workplace skills to expand the pool of candidates for leadership positions. We surveyed the Department's managers and used data from their responses to develop training strategies and a succession plan based upon the U.S. Department of Labor's Water Sector Competency Model.

Our solution was the development of "Utilities University" (UU) in 2012, a three-year continuing education program that allows employees to enhance their knowledge and skills based upon three different learning tracts: Operations/Technical, Business and Supervisor Specific. Employees who apply and are selected for the program can choose the tract that best suits their goals and interests. The curriculum for Utilities University was developed by utility subject matter experts in partnership with a local career tech institute with whom we hold a professional services agreement. The program offers a mix of traditional instructor-led classes, Utilities-specific classes, directed studies and intern assignments,

along with online courses provided by the American Water Works Association, Water Environment Federation and Solid Waste Association of North America.

The first UU "class" graduated in 2015, and as of June 8, 2017, a total of 82 employees have completed the program. We are already seeing how they implement the skills learned, including proposal writing, business leadership, quality



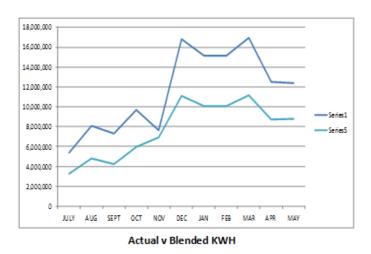
control and project management. The program also fosters improved communications between divisions and is empowering employees to make positive organizational changes. Moving forward, we will expand Utilities University to include required "lean" training for all supervisory personnel and Green Belt process training for Division Managers, with an overall goal to improve process management among department decision-makers so they can analyze current protocols and recommend improvements to reduce Utility costs while expanding our service delivery model.

While cultivating administrative and management leadership are fundamental to future operations, the Department also recognizes the need to foster programs to enhance employee safety, especially among field employees. Currently, the Utility has one Training & Safety Specialist and one Safety Analyst to oversee the Department's Emergency Response Plan, implement training for field employees, monitor safety protocols, and oversee incident reporting and communications. The safety team meets with division managers 2 times per month to discuss workplace injury programs, and coordinate safety trainings. Recent trainings include Dog Bite Safety for line maintenance and meter maintenance technicians and Hazardous Materials Handling for wastewater treatment employees.

In 2016, the Department hired an outside consultant to evaluate our safety programs and identify areas of that needed improvement. Based upon the consultant's findings, our safety team developed new standardized procedures for incident reporting across all divisions. In FY 2017-18, they will work to identify and implement changes to field work practices in order to reduce potential for on-site injuries. To better accommodate our needs in this area, the Department will hire a second Safety Analyst during the 2017-18 Fiscal Year, bringing our total dedicated safety staff to three.

VI. 4. Operational Optimization

The Department is implementing a full SCADA upgrade on its water treatment and distribution system to provide enhanced security and remote operational data to be used by department divisions to optimize system operations for peak performance and energy savings.



The City has installed variable frequency drives on 95% of its system pump motors to maximize energy savings. The additional 5% will be completed within the next 5 years. Likewise, we maximize energy savings through utilizing the local electric utilities' flex pricing programs, which allow us to take further advantage of discounted energy rates.

Lighting in existing water, wastewater and solid waste facilities is being replaced with LED lighting to lower energy costs. New building will also include LED lighting. The Department works with the City's energy manager who consults with local energy companies

and cooperatives about the latest rates and plans to ensure the proper program implementation for each facility.

Work orders are handled through the department's SAP system, which includes full CMMS programs using Cityworks and GIS. We are developing a mobile workforce program for Line Maintenance employees so they may provide real-time data on field work using mobile technologies. The data will tie-in directly to the City's GIS, improving speed and accuracy in updates.

Beginning in FY 2017-18, we will centralize our department's fleet into a single division. This will enable us to right-size the fleet while maximizing operational efficiencies by streamlining vehicle maintenance, employee licensure and vehicle and parts inventory handling.

In addition to internal operational changes, we have partnered with other City departments to outsource routine functions such as facility mowing and landscape maintenance (Parks & Recreation) and road maintenance on water trust properties (Public Works).

VI. 5. Financial Viability

The Oklahoma City Water Utilities Trust (OCWUT) has a long history of prudent financial management. OCWUT relies on a blend of reliable, recurring annual net revenues and bond financings to fund construction of capital improvements. OCWUT manages 30-year financial plans for the Water and Wastewater Utilities. Financial policies include a minimum 2.0 times debt service coverage ratio, a 1.0 times fixed coverage ratio, a minimum of 90 days working capital, CIP Reserve funds, and Rate Stabilization Reserve funds. In addition, OCWUT has a policy to recover 100% of asset depreciation expenses from base charges. OCWUT balances capital project funding with a policy of 60% debt funding and 40% pay-as-you-go (cash funding). Life-cycle cost analyses are conducted for capital projects with investment costs, electricity costs, operating costs, and maintenance costs incorporated into the long-term financial plans, thus revenue requirements in future years include future impacts of costs associated with current capital assets investments.

OCWUT has retained expert cost-of-service consultants to provide cost-of-service and rate design services with the goal of producing full cost-recovery rates. Annual rate adjustments are smoothed in small increments to avoid rate shock and are presented to City Council in three to four year rate plans at a time. OCWUT has a diversified customer base with residential, commercial, industrial, and wholesale customers. In Fiscal Year 2016, the top ten water customers (by consumption) accounted for approximately six percent of water service charge revenue. OCWUT is a major water provider to the metro area, serving 19 communities outside Oklahoma City.

OCWUT has also had a history of receiving progressively higher bond ratings due to its prudent financial management and capability of meeting growing service needs. In the fall of 2016, OCWUT received long term credit ratings from Standard and Poor's (AAA) and Moody's (Aaa), which places OCWUT in the top 5.5% and 3.2%, respectively, of water and wastewater utilities nationwide. The credit agencies cited strong financial management practices and policies, high debt service coverage, demonstrated council support of multiyear rate increases, and OCWUT's role as a regional supplier with ample water supply to meet future demand.

VI. 6. Infrastructure Strategy and Performance

As a city of 621 square miles, Oklahoma City is one of the largest landmass cities in the United States. Careful consideration of infrastructure development plays a crucial role in the Utility's ongoing success as well as the promotion of thriving neighborhoods and strong commercial and industrial growth. In 2012, the Oklahoma City Planning Department developed planOKC, a comprehensive plan that details the city's projected growth and

development over the next 20+ years. planOKC includes a technical analysis of potential land use across all fronts, including utilities infrastructure and service delivery. In achieving the plan, the Planning Department relied on analyses conducted by the Utilties Department to identify areas where development should be targeted to maximize the use of existing water and wastewater system infrastructure. The final planOKC was approved by City Council in 2015, and in 2016, was selected for the Outstanding Plan Award by the Oklahoma America Planning Association.

Because the delivery of water plays a critical role to the City's continued plan for growth, the Utility has developed an asset management program that is part of a \$1.5 billion capital plan. The program will perform root-cause analysis of our current system and determine failure probability and failure consequences using conditional assessment data. This new, proactive approach will help engineers develop a replacement/refurbishment system based upon priority need, mitigating system failures. To meet this goal, OCWUT has agreed to double our capital funding from \$5 million to \$10 million annually in both water and wastewater to accommodate this program.

A significant part of the 5-year capital plan also involves infrastructure improvements and enhancements along the Atoka pipeline. This 100-mile pipeline is a critical delivery stream that delivers water from Lake Sardis and other surface waters from southeastern Oklahoma. Currently, we have a 60" pipeline in place along with multiple booster stations to help service our reservoirs in Oklahoma City. The new pipeline is a 72" pipeline and will run parallel to the existing pipeline, allowing for improved water delivery, and build in redundancies in the event of pipeline failures.

The City's two main treatment facilities, Hefner and Draper, each service a significant portion of the Utility's 1.2 million customers. However, as we have seen with two recent incidents at Draper – an electric outage after a tornado and a break in our 72" pipeline, we recognize there are significant system vulnerabilities that need to be addressed. To mitigate this, we are constructing a pipeline between the two treatment facilities that when complete, will create a fully-integrated delivery system of treated water for Oklahoma City. This will not only allow us to better manage water supplies year-round, but will create a critical redundancy system should either facility experience a significant outage.

VI. 7. Enterprise Resiliency

We understand how important having reliable water and wastewater service is to our stakeholders. We performed Vulnerability Assessments (VA) in 2002 and in 2010 with a consultant, the latter involving all facets of our Utility, including Water, Wastewater, Solid Waste, and Information Technology (IT). In addition, the consultant updated our Emergency Response Plan (ERP) to have NIMS/ICS structure, training, and functional exercises involving section heads and OKC Emergency Management to test communications between us and them. In November, 2016, we conducted a citywide tabletop drill involving OKC Emergency Management, the Local Emergency Planning Committee, and Utilities employees, and solicited feedback from some of our stakeholders upon completion of the drill.

The consultant also updated our Risk Management Plan (RMP) for the Hefner and Draper Water Treatment Plants for highly hazardous materials. The consultant decommissioned the highly hazardous portion of the RMP for the Overholser Water Treatment Plant since the treatment process no longer uses chlorine and ammonia – the treatment process is now exclusively Linear Alkylbenzene Sulphonate (LAS) and sodium hypochlorite, resulting in a much safer treatment process that no longer involved highly hazardous materials.

VI. 8. Community Sustainability

Oklahoma City recognizes that a sustainable environment is critical to the long-term economic and social health of the communities it serves, and takes measures to not only ensure the longevity of its water supply, but takes prudent steps to position itself as an environmental steward. A regional leader in reuse, the Utility sells an average of 2.2 billion gallons of treated wastewater effluent annually (approx. 12% of total flow) to commercial and industrial customers, reducing the use of raw or potable water for these heavy-use customers. The Utility has also entered into an agreement with a local energy company to option the sale of up to 25 MGD treated wastewater for oil and gas exploration. If the proposed transfer and infrastructure tie-in meets regulatory requirements, the sale could increase the percentage of reuse to almost 40 percent of the total effluent flow, saving raw and treated water for potable use.

In 2013, Oklahoma City became the first municipality in central Oklahoma to implement a formalized water conservation program, called "Squeeze Every Drop."

In addition to a permanent, year-round odd-even irrigation schedule and tapered restrictions based upon drought severity and water availability, the program also provides education and outreach to residents, businesses and industrial water users. Squeeze Every Drop focuses on high-use water consumers to encourage smart savings techniques such as drought-tolerant plant selection, irrigation pressurization, irrigation system maintenance, low-flow toilets and faucets, and other measures.



The program includes a partnership with Oklahoma State University, which developed four water conservation demonstration gardens in local parks and at the Oklahoma City Zoo. Other outreach efforts include programs to targeted neighborhoods to educate residents and HOAs on proper irrigation techniques, as well as our H2Outstanding Restaurant program that encourages restaurants to train chefs and staffs on water conservation techniques, and install low-flow spigots and appliances.

Our conservation initiatives are promoted through the SqueezeEveryDrop.com website in addition to social media (Facebook and Twitter), and through general advertising campaigns. For 2017-18, the Department will begin a broader conservation campaign considering multiple segmented audiences, including high-end water consumers, urban dwellers and businesses. The campaign is included in the 2017-18 Water Conservation Plan currently under development.

As our local climate zone is prone to extreme high summer temperatures, we understand the importance of reducing ozone emissions as part of our overall environmental strategy. Since 1996, we have championed the use of cleanburning alternative fuel vehicles in our vehicle fleet, leading the way for other groups to follow when we converted 48 of our Line Maintenance pick-up trucks to compressed natural gas. Today, the Line Maintenance, Engineering and Administration divisions include natural gas and hybrid-electric vehicles among their fleets, and the Solid Waste Management division has nearly 60 CNG waste haulers its uses as part of its regular operations. The Department has also invested in its own CNG refueling station. The station not only provides reduced-cost fuel for Department vehicles, but also serves as a Department revenue source since it is open to the general public. Thanks to our ongoing commitment to conservation and air quality, the Association of Central Oklahoma Governments (AGOC) awarded the Utilities Department its 2013 Clean Cities Vision Award.

VI. 9. Water Resource Sustainability

Oklahoma City has planned and implemented water supply improvements to continue providing sustainable, resilient water supply to Oklahoma City and Central Oklahoma. Our water supply history started with the Land Run in 1889, when thousands of enterprising and hopeful pioneers ventured into Indian Territories to establish a new state. Within a single day, Oklahoma City was born, and with it 10,000 residents in need of water. They were served by a single well, one bucket at a time. Today, that supply system covers 250 miles from the northwest to southeast corners of the state. System expansion came about as the result of continued long-term master planning focused on providing Oklahoma City and the surrounding communities with a sustainable water supply. Through this process, Oklahoma City has positioned itself as the largest fresh water supplier in the state, serving not only the Oklahoma City Metropolitan Statistical Area of 1.4 million people, but additional communities in southeast Oklahoma. Currently, the Oklahoma City Water Utilities Trust (OCWUT) holds water rights at seven lakes (three in Oklahoma City) and two rivers within the state, including waters in the northwest, south-central and southeastern parts of Oklahoma.

Oklahoma City pulls its water from two distinct systems: the North Canadian River System and the Southeast Oklahoma Water Supply System. The North Canadian River System consists of three reservoirs; Canton Lake, Lake Hefner and Lake Overholser, in addition to 85 miles of river for conveyance of water, river impoundment system and diversion structures. The Lake Overholser Dam includes river gates to allow for water to be impounded so that water can be diverted to Lake Hefner and Lake Overholser. Water diverted to Lake Hefner flows through a man-made canal that flows generally northeast five miles to the lake, which is a terminal reservoir. Oklahoma City purchased the storage rights in Canton Lake and allow Oklahoma City to store water and release flows to the North Canadian River to flow to either Lake Hefner or Overholser. The Hefner Water Treatment Plant treats and pumps water to feed northern Oklahoma City while the Overholser Water Treatment Plant is used primarily for peaking or emergency conditions and generally serves the downtown Oklahoma City area.

The Southeast Oklahoma Water Supply System consists of 3 reservoirs, 7 pump stations, and approximately 118 miles of raw water transmission main. Lake Stanley Draper receives water pumped from Lake Atoka, which, in addition to normal runoff within its watershed, receives flow from the McGee Creek Reservoir. The Draper Water Treatment Plant treats and pumps to serve the majority of Oklahoma City plus several wholesale customers.

With the North Canadian River System and the Southeast Oklahoma Water Supply System working in concert, Oklahoma City has developed a robust, supply system capable of serving Oklahoma City and Central Oklahoma. During periods of drought, one supply system can be more heavily relied upon to offset the decreased supply from the other system. Additionally, a new initiative is being implemented by Oklahoma City to interconnect the water service areas for the Hefner and Draper Treatment Plants to create water service resiliency on the discharge side. The interconnection project will provide increased protection during periods of droughts, maintenance activities and system outages.

As part of the continued water supply master planning process, an expansion to the Southeast Oklahoma Supply System is currently underway. Water storage rights were purchased for the Sardis Reservoir, nearly doubling the City's future water supply by granting an average of 110,000 acre feet per year of water. The purchase agreement came after five years of extraordinary efforts by the Chickasaw and Choctaw Tribal Nations, the State of Oklahoma, and the City of Oklahoma City to adjudicate the Kiamichi River water supply to allow Oklahoma City to utilize it as a future source. President Barack Obama signed the agreement into law in December, 2016, which was included in Senate Bill 612, the

Water Infrastructure Improvements for the Nation (WIIN) Act. The partnership is highlighted on the website www.waterunityok.com.

A second 100-mile pipeline from Lake Atoka to Lake Stanley Draper is in design to allow for the full conveyance of existing water rights, system resiliency, and additionally capacity for the future supply from the Kiamichi River.

In 2014, under the auspices of the Oklahoma Regional Water Board, OCWUT was granted a positive outcome by the case in the United States Supreme Court (*Tarrant Regional Water District v. Herrmann*) to protect the state's water supply from encroachment from out-of-state utilities. The case has changed the way in which water compacts and interstate water transport are developed. In 2016, the City of Oklahoma City signed an historic cooperative water rights agreement in partnership with the State of Oklahoma, Choctaw Nation and Chickasaw Nation, which allows the Department to maintain the rights to these vital water sources in the south-central and southeastern parts of the state.

VI. 10. Stakeholder Understanding and Support

The Oklahoma City Utilities Department operates under the auspices of the Oklahoma City Water Utilities Trust (OCWUT) and the Oklahoma City Environmental Assistance Trust (OCEAT), which provide policy oversight and long-term financing for the City's water/wastewater and solid waste systems, respectively. OCWUT guides the Utility's operational and departmental policies, including capital development, financing and rate management.

Staff provides ongoing project and financial updates to OCWUT during twice-monthly meetings. Policy decisions, including recommended ordinance changes, rate increase and other operational matters, are voted upon by OCWUT then forwarded to Oklahoma City Council for their consent. The Department director reports directly to the Assistance City Manager over the Utilities Department. He, in turn, reports to the City Manager, who is also a member of the Trust.

In addition to our local governance, department leadership works closely with community leaders in other water districts and municipalities who are part of our water system to instill ongoing confidence in the system and keep them informed of critical changes and rate considerations. We also have ongoing working relationships with the Association of Central Oklahoma Governments (ACOG) and Oklahoma Water Resources Board (OWRB), with whom we partner on a variety of matters, including state water rights issues, and legislative lobbying.

For water and wastewater operations management, we work closely with representatives with the Oklahoma Department of Environmental Quality (ODEG), who advise on quality control measures, and provide regulatory guidance and permits for our multiple facilities and raw water sources. Currently, we are working with them on a new permitting agreement for our wastewater delivery system that will allow us to divert treated wastewater to a local oil and gas corporation for their use in exploration and extraction.

Public communication is a top priority in ensuring continued quality in our customer service delivery. A department PIO works in conjunction with the City's Public Information Management team to develop and implement strategic messaging to our publics via the City's website and social media streams. We also work directly with a local advertising agency to develop campaigns such as our "Squeeze Every Drop" water conservation campaign, and our "FOGzie" Fats, Oils and Grease campaign targeted to area restaurants and commercial customers. New customers receive welcome kits that include information about water and waste water services.

From time to time, we secure the services of a local research group to gauge customer opinion on our utility service delivery and industry-specific issues. Along with qualitative polling data, we also conduct focus groups that provide us with more qualitative, opinion-driven information. Recent surveys conducted gathered customer attitude assessment on rate increases, recycling services and water conservation. These surveys prove instrumental in the development of strategic measures for our ongoing communications and business plans.

None of our achievements could be accomplished without the work and support of our Utility employees. As such, it's important to promote a culture of inclusion and importance among each of our employee groups, from executive management to supervisory and field workers. Quarterly, we print and deliver more than 750 newsletters so employees can read about department and individual accomplishments, years-of-service awards, and information on department initiatives and programs.

Our motto for employee development is "100%/Zero," which is the name of our accountability program for all Utility employees. The program encourages employees to hold themselves accountable for their actions and responsibilities 100% of the time, and to make zero excuses for falling short of department goals. "100%/Zero" fosters a spirit of collegiality and teamwork where we hold each other up as we serve our customers every day and in every way and work to meet our business goals.

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