

**Application for the
WaterSMART Title XVI Water Reclamation and
Reuse Grant Program- FY2017:
Feasibility Study to Augment Bartlesville Water
Supply with Drought-Resilient Reclaimed Water**

FOA No. BOR-DO-17-F003

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List of Abbreviations

| | |
|-------|---|
| AFY | Acre-Feet per Year |
| BMA | Bartlesville Municipal Authority |
| CRWPS | Caney River Raw Water Pump Station |
| CWWTP | Chickasaw Wastewater Treatment Plant (City of Bartlesville) |
| DEQ | Department of Environmental Quality (Oklahoma) |
| DPR | Direct Potable Reuse |
| EA | Environmental Assessment |
| FOA | Funding Opportunity Announcement |
| FS | Feasibility Study |
| FY | Fiscal Year |
| IPR | Indirect Potable Reuse |
| MGD | Million Gallons per Day |
| O&M | Operation & Maintenance |
| OCWP | Oklahoma Comprehensive Water Plan |
| ODEQ | Oklahoma Department of Environmental Quality |
| OWRB | Oklahoma Water Resources Board |
| PAS | Planning Assistance to States |
| QA/QC | Quality Assurance / Quality Control |
| RWD | Rural Water District |
| USACE | U.S. Army Corps of Engineers |
| USBR | U.S. Bureau of Reclamation |
| USEPA | U.S. Environmental Protection Agency |
| WQ | Water Quality |
| WWTP | Wastewater Treatment Plant |

Technical Proposal and Evaluation Criteria

Executive Summary

Applicant (Funding Group I)

City of Bartlesville
Washington County, Oklahoma
January 5, 2017

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A one paragraph project summary that identifies the proposed work, including how funds will be used to accomplish specific feasibility study activities and briefly identifies how the proposed feasibility study contributes to accomplishing the goals of this FOA.

A severe drought in 2001-02 demonstrated the vulnerability of Bartlesville's existing water supply to impacts from uncontrollable factors: drought, sedimentation, water quality and other environmental variables. In response, the City of Bartlesville adopted the **2002 Drought Contingency Plan** and began seeking new and alternative sources of raw water to secure its long term water supply portfolio. Multiple studies have been completed on this task focusing on water impoundments with the most comprehensive being the U.S. Army Corps of Engineers Planning Assistance to States (PAS) study. The recommendations from the PAS study include purchasing new water storage rights from Copan Lake as well as reallocating portions of the flood control pools within both Hulah and Copan Lake for water supply. This reallocation requires additional studies to identify and mitigate the environmental and downstream flooding impacts resulting from the flood pool modification. However, the cost to purchase the corresponding water storage rights, mitigate the environmental/downstream flooding impacts and develop the necessary infrastructure to convey the raw water to the water treatment facility has a present day cost of over \$90 million which is beyond the capacity of Bartlesville's utility customers. Another option that has not been evaluated, is to investigate utilizing a portion of the wastewater effluent from the City-owned wastewater treatment facility as a de-facto Indirect Potable Reuse source to the Caney River to stabilize and provide a drought resilient water supply. Bartlesville proposes to perform this feasibility study to determine the environmental, technical and cost viabilities of reclaiming wastewater effluent by relocating the existing Caney River effluent discharge approximately 5 to 7 miles upstream, which places the effluent

discharge upstream of the existing Caney River Raw Water Intake Pump Station (CRWPS) from where it will be conveyed to the existing water treatment plant for further treatment and finally distributed for potable use. Reclaiming of a portion of the wastewater effluent will provide a drought resilient raw water source, will extend current water supply resources by approximately 13 to 25 years or more and will provide approximately 35-70% of current water supply need depending on the amount of reclaimed water utilized. The funds under this FOA will be used to develop the feasibility study report and for all associated support activities.

Bartlesville has the backing and support of its elected officials, local community leaders and the stakeholders to pursue this study. Funding has already been appropriated to pursue this study through the Bartlesville City Council, and the study will be completed within 18 months following the award of this grant by the Bureau of Reclamation.

Study Description

The study description should describe the work in detail, including specific activities that will be accomplished. This description should have sufficient detail to permit a comprehensive evaluation of the proposal. The study description should address the requirements of a Title XVI feasibility study described in Section 4.B of the Reclamation Feasibility Study D&S. This is available at www.usbr.gov/recman/wtr/wtr11-01.pdf and is included as an attachment to this FOA (the requirements are found on pages 4 through 11).

The City of Bartlesville is an incorporated municipality in Oklahoma with a 2015 census population of approximately 36,596. Bartlesville operates and maintains its own water and wastewater utilities and its water service area is shown in **Figure 1**. In addition to serving within its city limits, Bartlesville water system serves the surrounding communities of Washington County Rural Water District (RWD) #2, Washington County RWD #5, Osage County RWD #1, Town of Ochelata, Town of Ramona, City of Dewey, Strike Axe Water system and the Bar Dew water system.

The Bartlesville service area is approximately 282 square miles covering part of Washington County, Osage County and Nowata County, and serves as the major regional water supplier within the watershed basin.

Bartlesville's primary source of raw water supply is the Hulah Reservoir. See **Figure 2**. Hulah Reservoir is a federally-owned lake originally completed in 1951 for flood control, water supply, low flow regulation, and conservation purposes. Bartlesville has a water right of 13,819 acre-feet (12.4 million gallons per day, or MGD). Raw water from Hulah Reservoir is pumped to discharge into Lake Hudson which is a city-owned lake. Due to its size, Lake Hudson is insufficient for water supply yield on its own and is considered part of the Hulah/Hudson water supply system.

Bartlesville also has water rights on the Caney River, which served as the original raw water supply for Bartlesville prior to the development of the Hulah/Hudson reservoir system. In the

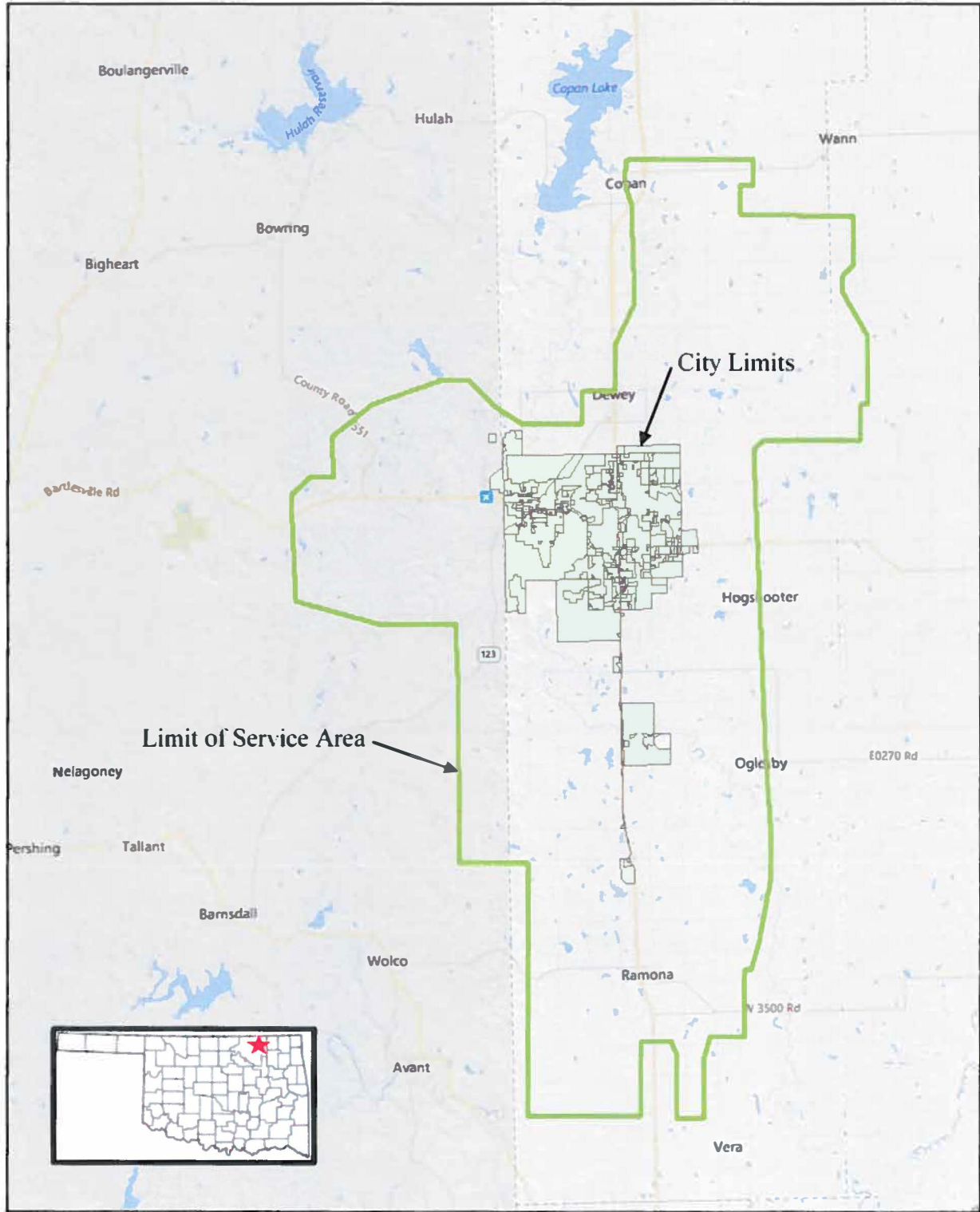
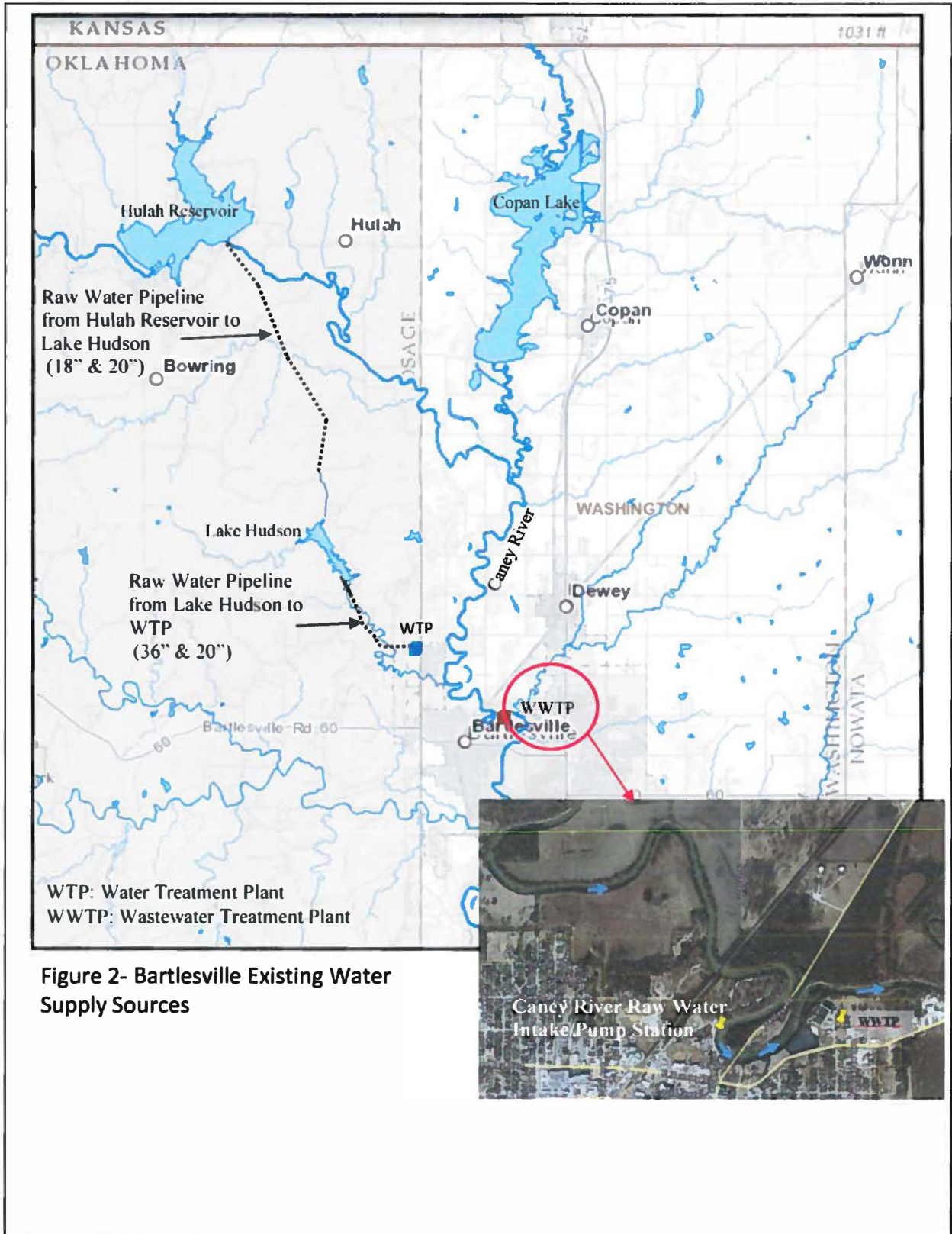


Figure 1- Bartlesville Vicinity and Water Service Area



late 1920's a low water dam was constructed on the Caney River to create a small impoundment within the river to draw the raw water from. Bartlesville continues to operate a 1940-era raw water pump station on the Caney River (see **Figure 2**) within this impoundment and uses the Caney River as a secondary source. Due to intermittent water quality and seasonal flow variations, this water source is unreliable.

The current raw water supply portfolio available to Bartlesville is as summarized below:

- **Surface Water Sources:**
 - **Hulah Lake.** Bartlesville has 13,819 acre-feet (12.4 MGD) of water rights. There are no more water rights available at this Federally-owned reservoir. Based on historic and projected silting and sediment deposits, the projected dependable yield from Hulah is 6.4 MGD through year 2035 and 4.4 MGD by year 2055.
 - **Hudson Lake.** Bartlesville has 6,000 acre-feet (5.4 MGD) of water rights which represent all the water rights available at this City-owned reservoir. Due to the size of the lake and limited watershed, there is no appreciable yield associated with the lake, and it is considered part of the Hulah Lake water supply system.
 - **Caney River.** Bartlesville has 6,000 acre-feet (5.4 MGD) of water rights and operates a 1940-era pump station on the Caney River. The intermittent water quality and seasonal flow variation in the river makes this source non-dependable.
- **Ground Water Sources:** There are no known dependable ground water supplies within the watershed with adequate quantity or quality for potable use.
- **Reclaimed Water Sources:** Reclamation of wastewater effluent from Bartlesville's wastewater treatment plant is a potential option to include in the water supply portfolio which is the focus of this feasibility study and purpose of this FOA request.

The 2001-02 drought exposed the vulnerability of Bartlesville's existing raw water supply to uncontrollable factors including drought, sedimentation, climate change, water quality and environmental causes. In response, Bartlesville adopted the 2002 Drought Contingency Plan and completed multiple studies over the years focusing on surface water impoundments to diversify the raw water portfolio and make it more resilient to uncontrollable factors.

- In 2004 the United States Army Corps of Engineers (USACE), Tulsa District completed a study that evaluated the cost of bringing water from other surface water sources within Oklahoma including Federal Lakes, State Lakes and Natural Resources Conservation Service Lakes. The options required construction of a substantial amount of pump and pipeline infrastructure exceeding 30 miles and required securing new water rights from already stressed resources.

- In 2006-2007, Bartlesville partnered with the USACE, Tulsa District and the Oklahoma Water Resources Board (OWRB) to complete a surface water impoundment supply alternative study under the Planning Assistance to States (PAS) program.
 - Phase I of the study evaluated the current and projected water demand through 2055 and re-evaluated the dependable yield from Hulah Lake based on historic and projected silting and sediment deposits in the lake. The Phase I evaluation concluded that Bartlesville’s dependable yield from Hulah will decrease from its original yield of 12.4 MGD in 1951 to 6.4 MGD through the year 2035 and to 4.4 MGD by the year 2055.
 - Phase II of the study focused on three primary alternatives: (1) purchasing water storage rights at Copan Lake and purchasing additional storage rights through the reallocation of flood storage at Copan Lake and Hulah Reservoir to water supply; (2) developing a new reservoir (called Sand Lake) on Sand Creek in Osage County, Oklahoma; (3) using Kaw Lake water supply storage and developing a pipeline to the city’s Hudson Lake. The study concluded that alternate (1) was the most viable option to satisfy the City’s raw water needs through the year 2055. However, the flood control storage reallocation requires regulatory clearance and approval, downstream flood damage mitigation through the purchase of property or easements, and mitigation to upstream recreational and cultural resources.
- In 2013 Bartlesville initiated the Copan Raw Water Conveyance Study. The goal of this study was to establish a plan for the infrastructure necessary to convey raw water from Copan Lake to the existing city-owned Ted D. Lockin Water Treatment Plant.

There are various uncontrollable factors that threaten the long-term viability of the City’s existing water sources, as well as the ones identified through the PAS study. The historic silting and sediment flow into the lake will continue to decrease the dependable yield from Hulah reservoir as well as Copan Lake. Hulah is a state designated nutrient limited watershed that will have unspecified long term impact on water quality. Both surface water resources are dependent on rainfall and runoff that are prone to seasonal variations, severe drought, and long term climate change.

The availability of other regional surface water sources is limited and will require developing a substantial amount of new infrastructure, securing new water rights and acquiring considerable state and federal regulatory approvals. Yet these new sources will also be subject to similar levels of uncertainty associated with drought, sedimentation, regional and global climate change and other environmental factors.

Bartlesville is a regional water supplier, and the water demand for the region is expected to grow. Based on the 2006-13 studies, the projected average water demand for the Bartlesville service area is projected to grow to 9 MGD under an average growth scenario and 10.8 MGD under an optimistic growth scenario by the year 2065. See **Figure 3a**. The current supply portfolio will

experience a supply gap in the next 15 years without considering the impacts from climate change including drought.

Bartlesville strongly believes that reclaimed water from its wastewater treatment plant is an integral part of the future water supply portfolio and believes that a strategic use of reclaimed water will extend the city's water supply, as shown in **Figure 3b**. For example, augmenting with approximately 2 MGD of reclaimed water will extend the water supply by 13 years and a 4 MGD augmentation will extend it by approximately 25 years. See **Figure 3b**.

Reclaimed water is readily available at the city-owned Chickasaw Wastewater Treatment Plant (CWWTP), which has a permitted capacity of 7 MGD. As the CWWTP is expanded to meet future growth, additional reclaimed water will be available as well. The City intends the proposed Feasibility Study (FS) as the next prudent step to develop specific alternatives and optimize them following the guidelines outlined in the Title XVI Water Reclamation and Reuse Program. The goal and the focus of the FS will be to (1) demonstrate and document the technical feasibility, (2) evaluate the impacts to environmental and cultural resources, (3) develop present worth life-cycle costs for funding, designing and implementing of the preferred alternatives, and (4) address other Title XVI Water Reclamation and Reuse Program goals and objectives.

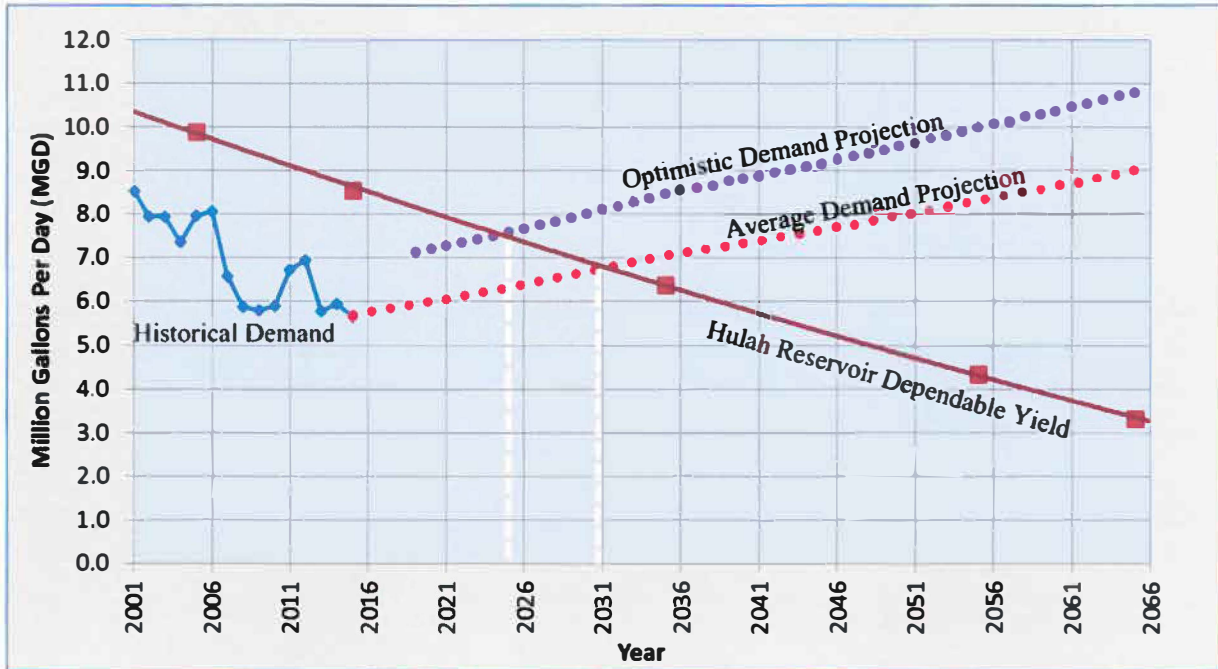


Figure 3a - Bartlesville Water Demand and Water Supply Dependable Yield (Existing Portfolio)

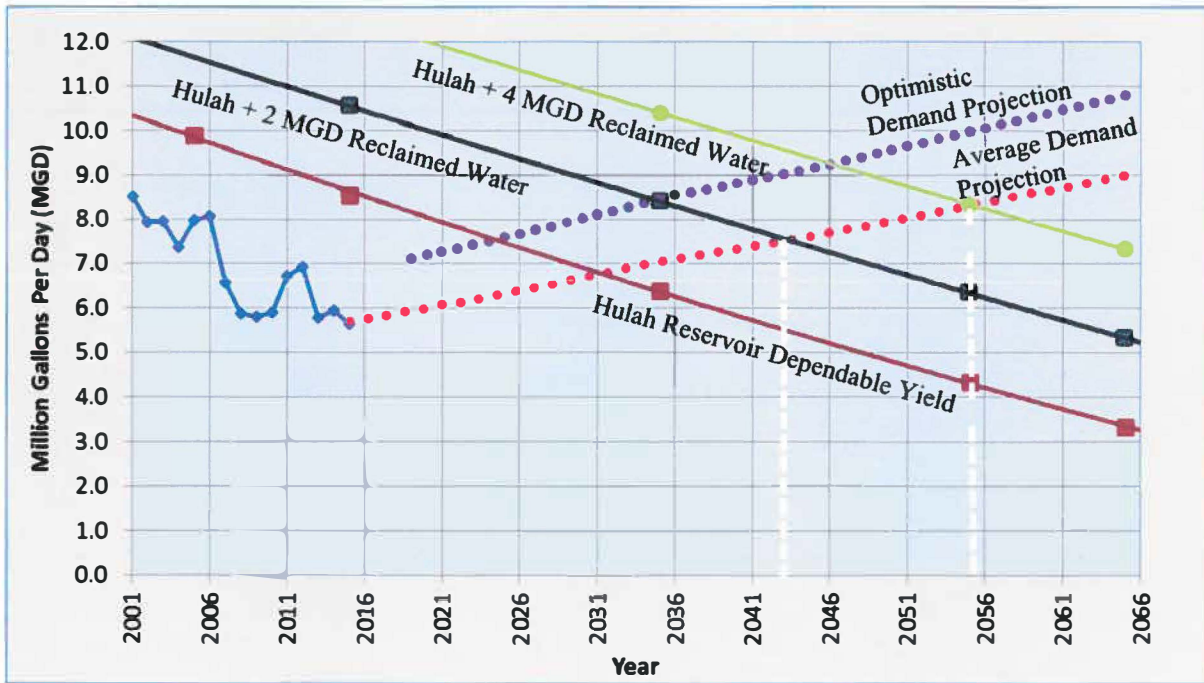


Figure 3b - Bartlesville Water Demand and Water Supply Portfolio with Reclamation and Reuse

The proposed FS will evaluate the following alternatives individually or in combination thereof:

1. Reclaim effluent from the CWWTP, treat it to a level suitable to maintain and/or improve Caney River water quality standards, and discharge approximately 5 miles upstream of the existing Caney River Raw Water intake to augment the flow in the Caney River.
2. Identify and develop specific non-potable use for the reclaimed water within the CWWTP to offset the potable use currently practiced at CWWTP.

The evaluation of these alternatives will include initial and life-cycle operational costs, operational complexity, regulatory barriers and approval, potential water quality and environmental impacts, public acceptance, and the ability to provide resiliency to uncontrollable factors and meet water demands. The following scope of work will be provided to accomplish the FS goals and objectives:

Scope of Work:

1. Task 1- Project Management

- 1.1. Project Management and Administration. Includes project resource, schedule and cost control, invoicing, internal quality control assurance reviews, communication and coordination with USBR.
- 1.2. Reporting. Periodic reporting on a monthly/quarterly basis to the Bartlesville City Council, Citizen Oversight Committee, community leaders, stakeholder public meetings and preparation of reports required for the Title XVI grants requirements.
 - 1.2.1. Quarterly reports to the City Council.
 - 1.2.2. SF-425 Federal Financial report on a semi-annual frequency or as required.
 - 1.2.3. Semi-annual Program Performance Report.
 - 1.2.4. Final report upon study completion.
 - 1.2.5. Public Participation. Activities related to presenting for public input, soliciting and incorporating comments.
 - 1.2.6. Coordination and communication with USBR.
 - 1.2.7. DEQ/OWRB Reviews and communications.

2. Task 2- Evaluate Caney River Water Quality Standards and Identify Alternative Locations for Reclaimed Water Discharge into Caney River

- 2.1. Caney River Water Quality Standards Review
- 2.2. Update Bartlesville Service Area Available Water Supply Projections. The goal of this task is to coordinate with USBR and the OWRB to update the water supply forecast developed in the previous studies to incorporate uncertainty attributed to the climate change and global warming phenomena.
- 2.3. Develop Desktop Model and Analysis
 - 2.3.1. Desktop model of the Caney River extending an approximate 5 to 7-mile segment from the existing CWWTP to upstream of Caney River Raw Water Intake. The Qual2K model recognized by the U.S. Environmental Protection Agency (USEPA) will be used to model the river and evaluate the impact of the reclaimed

water discharge in maintaining and/or improving the overall Oklahoma Water Quality Standards for the Caney River.

- 2.3.2. Develop specific level of treatment needed for the reclaimed water prior to discharge into the Caney River.
 - 2.3.3. Develop capital and operation and maintenance costs for each alternative, including treatment cost, pump station and pipeline transmission costs. Develop and rank each alternative based on non-monetary factors.
 - 2.3.4. Identify impact on the existing recreational and natural resource uses for the Caney River and document potential benefits and mitigation measures.
 - 2.3.5. Present and solicit input from Oklahoma Department of Environmental Quality (ODEQ) and the Oklahoma Water Resources Board (OWRB) to establish and obtain specific requirements for the more detailed field investigation and waste load allocation study for the Caney River.
 - 2.3.6. Prepare Technical Memorandum documenting the desktop model analysis, results and conclusions.
3. **Task 3- Detailed Wasteload Analysis for the Caney River.** Based on the Task 2.3 outcome, a more in-depth wasteload analysis for the Caney River will be performed to meet the Water Quality Standards and secure regulatory approval from OWRB and ODEQ. This task will include:
- 3.1. Field Monitoring Program. Develop field monitoring program to include the sampling plan, QA/QC procedures, and laboratory testing, and secure DEQ buy-in.
 - 3.2. Conduct Field Monitoring to include river time of travel study, water quality sampling, gather data on river channel re-aeration and sediment demand, physical cross section for use in the more detailed multi-dimensional computer model.
 - 3.3. Detailed Model Setup, Calibration and Validation.
 - 3.4. Detailed Wasteload Allocation Study. Perform the regulatory required detailed wasteload allocation study to establish the level of treatment required for the reclaimed water in order to maintain and/or improve the Caney River Water Quality.
 - 3.5. Identify Potential Recreational, Habitat and Environmental Opportunity for the project Alternatives. The purpose of this task is to identify the environmental considerations and associated cost and benefit for incorporation into the report.
4. **Task 4- Prepare Capital and Operational Cost.** This will update the cost based on Tasks 2 and 3 findings including the life cycle operational and maintenance costs.
- 4.1. Capital and O&M Cost- Treatment. Develop the initial and the life cycle costs for various treatment alternatives to achieve the level of effluent water quality.
 - 4.2. Capital and O&M Cost- Conveyance. Develop the initial and the life cycle costs for the various alignment and pump station required to convey the reclaimed water to the discharge location.
5. **Task 5- Prepare the Feasibility Report.** The formal feasibility report will be prepared to meet the requirements of the Title XVI FS requirements.
- 5.1. Introduction
 - 5.2. Statement of Problems and Needs
 - 5.3. Description of Reclamation Alternatives
 - 5.4. Life Cycle Cost Analysis and Summary of Non-Monetary Considerations

- 5.5. Proposed Title XVI Project
- 5.6. Environmental Considerations and Potential Effects
- 5.7. Legal, Regulatory and Institutional Requirements
- 5.8. Project Funding Plan
- 5.9. Appendices (Backup and supporting information, calculations, public participation information)
- 5.10. Draft Report
- 5.11. Final Report

The FS report deliverable will include: (a) administrative draft copy; (b) public review draft copy; (c) incorporation of public participation and stakeholder inputs; (d) and a final copy to USBR.

Evaluation Criteria

WaterSMART: Title XVI Water Reclamation and Reuse Program FOA No BOR-DO-17-F003 has eight criteria that need to be addressed. The criteria and how the proposed Bartlesville FS meets the criteria are described below.

Evaluation Criteria 1—Statement of Problems and Needs (10 points)

Points will be awarded based on the presence of watershed-based water resource management problems and needs for which water reclamation and reuse may provide a solution. Describe in detail the water resource management problems and needs in the area and explain how water reclamation and reuse may address those problems and needs. Additional consideration will be given to proposals that explain how the problems and needs in the area may be impacted by climate change, and/or if the feasibility study will include climate change information in the supply and demand projections used.

Bartlesville is located in Basin 76 of the Middle Arkansas Watershed Planning region as published by the 2012 Oklahoma Comprehensive Water Plan (2012 OCWP). See **Figure 4**. This watershed region primarily relies on surface water supplies, and there are no dependable ground water sources available for Bartlesville. The 2012 OCWP identified a water supply gap in this basin by 2020 even without considering the potential impacts from global warming and climate change. Bartlesville is the major water supplier in this watershed.

Subsequent to the 2001-02 drought, Bartlesville City Council adopted the 2002



Figure 4 – Watershed Basin
(Source: 2012 Oklahoma Comprehensive Water Plan)

Drought Contingency Plan and completed multiple studies that evaluated new out-of-basin water supplies (high cost due to distance to the supply and potential inter basin issues) as well as new and expanded basin supplies, which require reallocation of the flood control pool to water supply within Hulah Lake and Copan Lake, new water right permits, environmental impact/mitigation and substantial new infrastructure (intake, pumps, and miles of pipelines). Yet, these expanded sources will still be subject to the effect of uncontrollable factors such as drought, sedimentation, climate change, and environmental watershed water quality impacts.

Previous studies completed during 2006-13 provided projected water demand and supply based on historical growth and historical drought of record, respectively. This FS will also utilize climate change to refine these previous water demand and supply projections.

Reclamation of a portion of the effluent from the city-owned wastewater treatment plant to augment the Caney River supplies is an attractive option to expand the current water supply portfolio for Bartlesville, fill the water supply gap within the basin, address the regional watershed needs, extend the existing supply use and enhance drought resiliency.

Evaluation Criterion 2—Water Reclamation and Reuse Opportunities (15 points)

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will explore opportunities for water reclamation and reuse in the study area.

- *Describe how the feasibility study will investigate potential uses for reclaimed water (e.g., environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, and recreation).*
 - *Describe the potential water market available to use any recycled water that might be produced upon completion of a water reuse project, as well as potential methods to simulate recycled water demands and/or methods to eliminate obstacles for use of reclaimed water.*
 - *Describe the sources of water that will be investigated for potential reclamation, including impaired surface and ground waters.*
1. **The proposed alternatives to be evaluated in this FS involve municipal and industrial use, fish and wildlife, agricultural support and recreational use.**
 - **Municipal and Industrial Use.** The reclaimed water will be beneficially used for municipal supply after conveyance and further treatment to Drinking Water Standards. This will help to fill the water supply gap within the watershed.
 - **Fish and Wildlife.** Reclaimed water from the wastewater treatment plant will be used to augment the flow in the Caney River which would support fish and wildlife such as birds and beavers and instream water biology. The increased flow will help to increase the reaeration within the study segments thereby promoting fish and wildlife.
 - **Agriculture.** The proposed discharge would still maintain the flow in the Caney River for downstream traditional agricultural use.

- Recreational. The Caney River has a designated recreational use. Conveying the reclaimed water from the Bartlesville CWWTP to a point upstream of the existing “low water dam” and letting it flow will enhance the “Living River” in general and especially during the summer low flow periods potentially improving fish stocks.
2. As noted before, the reclaimed water will fill a major water supply gap within the watershed basin, and there is an immediate and long term need for the reclaimed water supply to improve the Bartlesville water supply portfolio. The use of reclaimed water within the CWWTP for non-potable process water needs also readily exists and will help to offset the potable water currently used at the CWWTP.
 3. The source of the reclaimed water is the effluent from the Bartlesville owned and operated wastewater treatment plant. The wastewater plant has adequate capacity to provide the reclaimed water needs. As the wastewater treatment plant is expanded in the future, more plant effluent will be available for future reclaimed water needs. This provides a drought resilient supply.

Evaluation Criterion 3— *Description of Potential Alternatives (15 points)*

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will develop descriptions of water supply alternatives, including a proposed water reuse project and other water supply alternatives.

- *Describe the objectives that all alternatives will be designed to meet. What other water supply alternatives will be investigated as part of the feasibility study?*
 - *Provide a general description of the proposed project that will be the subject of a feasibility study.*
 - *Describe alternative measures or technologies for water reclamation, distribution, and reuse that will be investigated as part of the feasibility study.*
1. The proposed Feasibility Study to augment Bartlesville Water Supply will focus on (a) Reclaiming effluent from the CWWTP, treating it to a level suitable to maintain and/or improve Caney River water quality standards, discharging approximately 5 miles upstream of the existing Caney River Raw Water intake to augment the flow in the Caney River; and (b) Identifying and developing specific non-potable use for the reclaimed water within the CWWTP to offset the potable use currently practiced at CWWTP. See **Figure 5**.

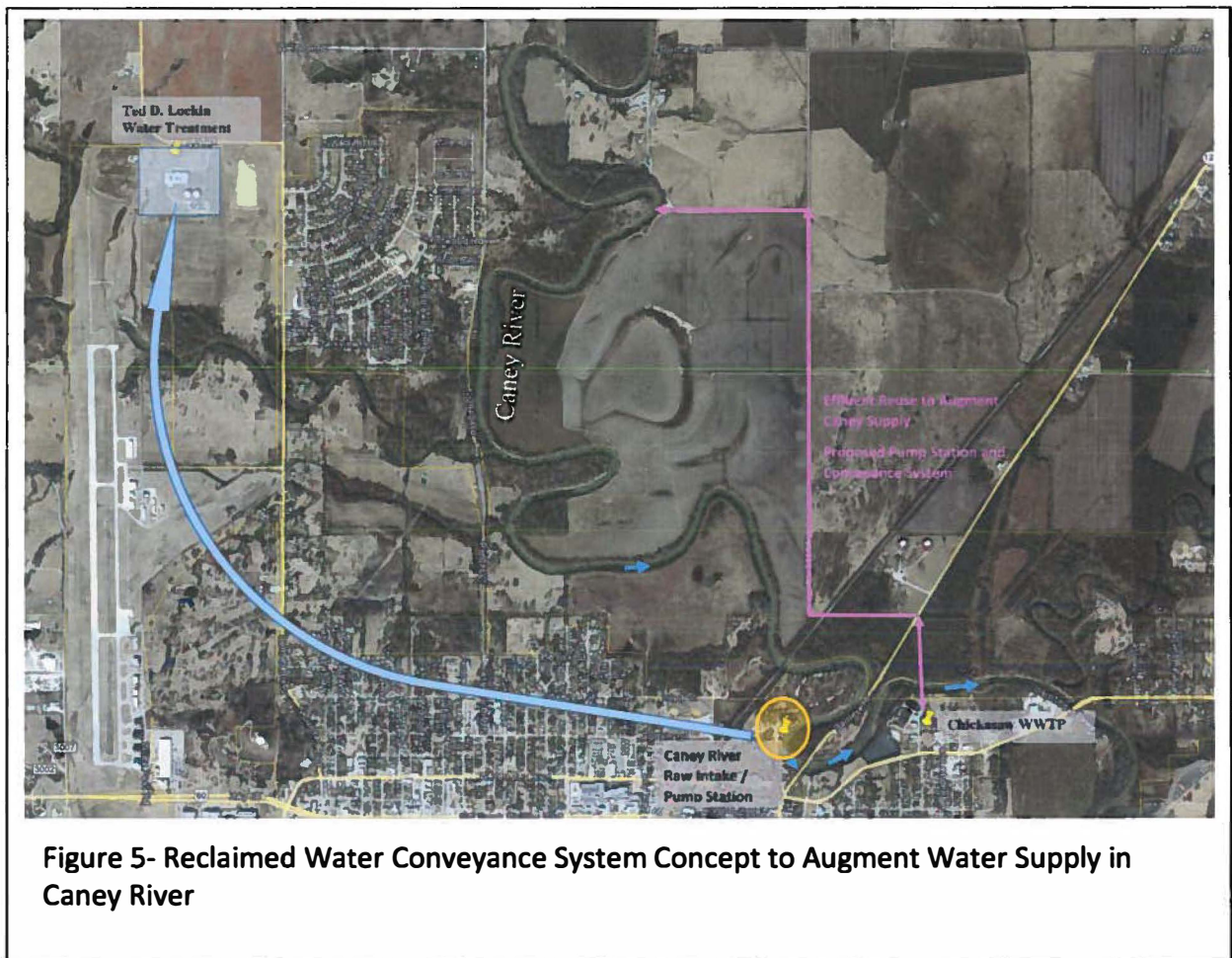


Figure 5- Reclaimed Water Conveyance System Concept to Augment Water Supply in Caney River

There is another option which is to directly pipe the reclaimed water into the raw water pipeline located near the Caney River intake approximately 0.6 upstream river miles from the CWWTP. This option is not included in the study due to the following:

- Discharging reclaimed water directly into the raw water pipeline will be considered a Direct Potable Reuse (DPR) and currently the Oklahoma DEQ does not have an established standard to address the treatment needs. Instead, discharging the reclaimed water 5 miles upstream provides sufficient travel time through an adequate environmental buffer that the DEQ and OWRB will consider as a traditional point source discharge.

During the last 13 years, Bartlesville has completed multiple studies that evaluated various alternatives including: (a) bringing new out-of-basin supplies from Kaw, Oologah and Skiatook Lakes; (b) expanding the existing lake supply at Hulah Lake and Copan Lake via reallocation of flood control storage to water supply; and (c) constructing a new surface

water lake within the existing watershed. Information and conclusions from these past studies will be leveraged and incorporated into this FS to use as a bench mark for comparison with the proposed reclamation alternatives.

2. General Description of the proposed project under this FS is as follows and is depicted in **Figure 5**.

Effluent from the City's existing CWWTP will be treated to a level sufficient to maintain the water quality standards for the Caney River and pumped approximately 5 to 7 miles upstream of the existing raw water intake and discharged into the Caney River to augment the flow.

3. Various alternative measures and technology for water reclamation will be used depending on the level of effluent treatment required for the discharge. Such technology may include advanced secondary and tertiary treatment using effluent filtration, membrane biological reactors, and effluent aeration using energy efficient solar powered mixers. Various alternatives for the effluent conveyance system alignment, pipe material and pumping system will be evaluated as well.

Evaluation Criterion 4—Stretching Water Supplies (15 points)

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will address activities that will help to secure and stretch water supplies. For each of the following sub-criteria, include descriptions of any specific issues that will be investigated or information that will be developed as part of the feasibility study.

- *Describe the potential for the project to reduce, postpone, or eliminate the development of new or expanded water supplies.*
- *Describe the potential for the project to reduce or eliminate the use of existing diversions from natural watercourses or withdrawals from aquifers.*
- *Describe, if applicable, the potential for the project to reduce the demand on existing Federal water supply facilities.*

The proposed FS will meet or exceed all these criteria.

1. As depicted on **Figure 3a** and **3b**, the proposed reclaimed water reuse will potentially limit, but at least postpone, the need for new or expanded water supplies from 13 years to 25 years and beyond depending on whether 2 MGD, 4MGD or more volume of reclaimed water is used in the water supply portfolio. Without the reclaimed water portfolio, the existing supply from Hulah Lake will have to be expanded and/or a new supply from Copan Lake developed to fill the water supply gap within the watershed basin.
2. Reclaimed water will be used to fill the water gap, stabilize the reliable yield and expand the water supply portfolio. Without reclamation, additional surface water diversion from Hulah Lake will be necessary along with diversions from Copan Lake. Groundwater is

not an available option for the watershed, and therefore ground water discharge is not included.

3. Both Hulah Lake and Copan Lake are Federally owned and were developed primarily as flood control facilities. With the use of the reclaimed water as proposed in this FS, the necessity of reallocating flood control to water supply in these lakes will be reduced and potentially eliminated. Thus, the viability of these lakes to first function as flood control facilities, with the secondary function for water supply, will remain intact. In addition, pursuing reclaimed water provides more time to investigate potential improvements to the lakes, like dredging, which can re-establish water storage and sedimentation pools and can provide numerous benefits to the health and ecology of the lake as well as the recreational uses currently enjoyed at these facilities.

Evaluation Criterion 5—Environment and Water Quality (15 points)

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will address the potential for a water reclamation and reuse project to improve surface, groundwater, or effluent discharge quality; restore or enhance habitat for non-listed species; or provide water or critical habitat for federally listed threatened or endangered species. For each of the following sub-criteria, include descriptions of any specific issues that will be investigated or information that will be developed as part of the feasibility.

- *Describe the potential for the project to improve the quality of surface or groundwater, including description of any specific issues that will be investigated or information that will be developed as part of the feasibility study.*
- *Describe the potential for the project to improve flow conditions in a natural stream channel, including a description of any specific issues that will be investigated or information that will be developed as part of the feasibility study.*
- *Describe the potential for the project to provide water or habitat for federally listed threatened or endangered species, including description of any specific issues that will be investigated or information that will be developed as part of the feasibility study.*

1. **Hulah Reservoir is designated as a Nutrient Limited Watershed (NLW). Use of the reclaimed water proposed in this FS will help to reduce withdrawal from the Hulah/Hudson water supply which should generally result in higher water level and increased retained volume in the lakes which should foster natural biological activities. The conceptual plan for the effluent discharge from the wastewater treatment plant will be split, one discharge routed/pumped upstream of the raw water intake/low water dam, while the other discharge will remain in its current location downstream of the raw water intake/low water dam. Since the quality of the reclaimed water will be at least the same but potentially better, the flow split will result in a reduced wasteload being discharged into the Caney River in one location, thus improving the overall water quality within the stream. The Caney River is not an effluent dominated stream since the total wastewater discharge represents approximately 1/3 of the flow in the river during summer time/low flow conditions. Discharging reclaimed water upstream of the**

existing low water dam will enhance the backwater area behind the low water dam and will improve the water quality in the Caney River downstream of the low water dam by providing improved dissolved oxygen in the stream which will promote healthier fish, flora and fauna.

2. Under the proposed FS, up to 2 to 4 MGD or more of reclaimed water would be discharged upstream of the low water dam. This will increase the flow in the river segment and support riparian vegetation, and the higher flow velocities will also improve the natural reaeration and increase dissolved oxygen. Since the Caney River is not an effluent dominated river, the impact of reduced discharge downstream of the low water dam (due to reclaimed water withdrawal upstream) should have an insignificant, but likely positive, impact due to the reduced wasteload discharged downstream of the low water dam which will be evaluated in the FS.
3. The Caney River segment does not contain any federally listed threatened or endangered species pursuant to the Federal Endangered Species Act. This river segment is not designated as an Outstanding Resource Water (ORW), High Quality Water (HQW), or Sensitive Water Supply (SWS). However, this stream segment is designated as having ecological and/or recreational significance. The proposed reclaimed water discharge will increase the flow and improve the backwater storage. Additionally, reduced withdrawal from Hulah Reservoir (due to reclaimed water use) will allow an additional volume of water stored in the lake for release during the early springs for spawning of minnow and fish in the downstream river segments.

Evaluation Criterion 6—Legal and Institutional Requirements (10 Points)

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will address legal or institutional requirements or barriers to implementing a project, including water rights issues and any unresolved issues associated with implementation of a water reclamation and reuse project.

1. **Regulatory Barrier.** Reclaimed water reuse is covered in Oklahoma DEQ Title 252:656-27-1 that defines the categories of reclaimed water uses. This regulation defines category 2 through 6 which are all for non-potable reuse only. Category 1 is reserved for future regulation and Category 1 is intended to include Direct Potable Reuse (DPR) or Indirect Potable Reuse (IPR). These regulations are still in their infancy, and clear direction from DEQ is pending.

However, the proposed FS concept of discharging the reclaimed water at least 5 miles upstream of the existing Caney River raw water intake meets the DEQ and OWRB criteria that considers this a point source discharge and not IPR due to the travel time from the discharge to the raw water intake structure. In such circumstances, the discharge requirement will meet the Oklahoma Water Quality (WQ) Standards for the Caney River segment. The proposed FS scope of work includes the detailed tasks including Caney River modeling and wasteload allocation study to demonstrate and

secure approval from DEQ/OWRB within the already established Oklahoma WQ standards. Therefore, we do not anticipate any regulatory barrier which otherwise could be applied to a Category 1, IPR standard.

2. **Legal or Institutional Requirements.** Bartlesville already owns sufficient water rights from the Caney River at its current raw water intake location. Therefore, additional water rights will not be needed. Any new infrastructure and pipeline developed under the FS will be clearly identified as to the need for additional easement, land and other legal requirements in conformance with local, state and federal requirements. The FS will follow the Title XVI Reclamation Program requirements.
3. **Implementation.** Public and stakeholder acceptance will be critical to the success of the project. Bartlesville has the support and backing of the City Council, Citizen Oversight Committee, local leaders and the regional stakeholders. As part of the FS, public participation and input will be solicited and included in the study.

Evaluation Criterion 7—Renewable Energy and Energy Efficiency (10 points)

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will address methods to incorporate the use of renewable energy or will otherwise address energy efficiency aspects of the water reclamation and reuse project being investigated.

The proposed FS will evaluate the feasibility of using solar and/or wind power for aeration and mixing, using high efficiency motors and variable frequency drives for energy optimization, and using natural gas generators for backup power and to minimize the carbon foot print of any proposed improvements.

Evaluation Criterion 8— Watershed Perspective (10 points)

Points will be awarded based on the extent to which the proposal demonstrates that the feasibility study will address alternatives that promote and apply a regional or watershed perspective to water resource management.

Bartlesville is a major regional water supplier within Basin 76 of the Middle Arkansas Watershed planning region. See **Figure 4**. Bartlesville serves water to the surrounding communities of Washington County Rural Water District (RWD) #2, Washington County RWD #5, Osage County RWD #1, Town of Ochelata, Town of Ramona, City of Dewey, Strike Axe Water system and the Bar Dew water system. The proposed feasibility study to use reclaimed water supply augmentation will not only serve Bartlesville but will also help to fill the water supply gap within the watershed basin. The proposed reclaimed water will potentially stretch the existing water supply for 13 to 25 years or more, and it will represent approximately 30-70% of the current average usage within the Bartlesville service area. The proposed reclaimed water supply also represents a drought resilient source available from City-owned and operated wastewater treatment.

Required Permits or Approvals

There will not be any need for a permit or approval to conduct the proposed Feasibility Study.

Letters of Project Support

The City of Bartlesville has received letters in support of the proposed Feasibility Study from the Bartlesville Regional Chamber of Commerce, the Bartlesville Development Authority, the Bartlesville Fire Department, the City of Dewey, Osage County Rural Water District #1, Washington County RWD #2, and Washington County RWD #5. They are included in the attached Appendix.

Official Resolution

A resolution supporting this application and the proposed Feasibility Study will be taken to the Bartlesville City Council for their consideration and approval on January 19, 2017. The draft resolution is attached in the Appendix. An approved copy of the resolution will be submitted within 30-days of the deadline for this application.

Study Budget

Funding Plan and Letters of Commitment

The non-Reclamation share of costs for this study will be provided solely by the City of Bartlesville. The City of Bartlesville would be the recipient of funding provided from this grant. The City of Bartlesville has already appropriated funding through the fiscal year 2016-2017 budget.

In May 2016, the City of Bartlesville selected Tetra Tech, Inc., to update the facility plan for the Wastewater Treatment Plant and perform a Reuse Feasibility Study. The objectives of this study are (1) to update the City's wastewater treatment and wastewater conveyance master plan completed in 2010 and (2) to initiate a preliminary evaluation of the reclamation of the wastewater treatment plant effluent. The preliminary evaluation included a part of the scope included in this FS. Specifically, Task 2.1, Task 2.2 and Task 2.3 summarized in the Technical Study Description section of this application have been completed as part of the above-mentioned study. These efforts have been expended since July 1, 2016 and are continuing. If this Reclamation grant is awarded, Bartlesville intends to amend the engineering contract with Tetra Tech to perform the remaining tasks required for this FS.

Date funds available to applicant: Applicant (City of Bartlesville) already has appropriated funding for this project through the FY 2016-2017 budget. Within 30 days of receiving the notice of grant award or intent to award, the City will amend the engineering contract with Tetra Tech to perform the FS and appropriate the remaining non-Reclamation funding.

Time constraints on availability of funds: None.

Other contingencies with funding commitment: None. There is no other Federal funding requested under this study.

1. *How you will make your contribution to the cost-share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).*

Applicant contribution for the cost-share requirement will be made with both monetary and in-kind contribution throughout the duration of the project. The applicant's monetary contribution for all non-Reclamation funds will come from the Water Plant Capital Reserve Fund, which is derived from water revenue. The in-kind contribution will come from city staff time spent in project management and grant management duties.

2. *Describe any project expenditures that have been incurred or may be incurred before the anticipated award date that you may seek to include as project costs.*

As discussed earlier, Bartlesville selected the engineering consultant Tetra Tech, Inc. to initiate a part of this study. These efforts include scope items Task 2.1, Task 2.2 and Task 2.3 described in the Study Description section. Bartlesville intends to amend the scope of this professional service contract to encompass the items outlined within this grant application.

- a. The project expenditure and the amount:
Approximately \$88,461 had been expended pertaining to Task 2.1, Task 2.2 and Task 2.3.
 - b. Whether the expenditure is or will be in the form of in-kind services or donations:
These expenditures are part of the applicant's monetary contribution to this study, not in-kind contribution.
 - c. The date of cost incurrence: Since July 1, 2016.
 - d. How the expenditure benefits the project:
These tasks are part of and a pre-requisite to the subsequent tasks proposed for this feasibility study.
3. *Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.*

The City of Bartlesville is the applicant responsible for all non-Reclamation funding. No other funding partner is proposed.

4. *Describe any funding requested or received from other Federal partners.*

There is no other Federal funding requested under this study or for this study.

5. *Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.*

None.

Table 1 summarizes all funding sources needed for this study. In-kind contributions are denoted with an asterisk (*).

Table 1- Summary of Non-Federal and Federal Funding Sources:

| FUNDING SOURCES | AMOUNT |
|--------------------------------------|------------------|
| Non-Federal Entities | |
| 1. City of Bartlesville (cash) | \$249,293 |
| 2. City of Bartlesville (in-kind)* | \$21,736* |
| Non-Federal Subtotal | \$271,029 |
| Other Federal Entities | \$0 |
| Other Federal Subtotal | \$0 |
| REQUESTED RECLAMATION FUNDING | \$150,000 |
| Total Study Funding | \$421,029 |

The following Table 2 summarizes the percentage share of the funding sources.

Table 2- Funding Source Percentage Share Summary

| Funding Sources | % of Total Cost | Funding Amount |
|--|------------------------|-----------------------|
| Applicant Funding (City of Bartlesville) | 64% | \$271,029 |
| Federal Funding (USBR) | 36% | \$150,000 |
| Other Federal Funding | | \$0 |
| Total Study Funding | | \$421,029 |

Budget Proposal

The Feasibility Study will evaluate the augmentation of Bartlesville water supply with drought-resilient reclaimed water, and the detailed scope of work to accomplish this goal is provided under the Technical Study Description part of this application.

The proposed budget includes salaries for two City of Bartlesville staff whose services will be needed throughout the duration of this study. Terry Lauritsen, P.E., CFM, Director of Water Utilities, will be the Project Manager and Nancy Warring, CFM, Grants Administrator, will administer the grant. The services provided by City staff will be in-kind contributions and will include the following:

- Administration of this grant.
- Semi-annual filing of Form SF-425.
- Project performance reporting- semi-annual basis.
- Submission of final performance report.
- Gathering data pertaining to water usage, plant historical operation and maintenance data, record drawings and available information for use in this study.
- Review of submittal and deliverables.
- Coordination of public outreach and public participation efforts.
- Providing status reports and updates to stakeholders and City leaders.

Table 3- Budget Proposal Form.

| [REDACTED] | [REDACTED] | | [REDACTED] | [REDACTED] |
|------------|------------|------------|------------|------------|
| | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | | | | |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | | | | |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | [REDACTED] |
| [REDACTED] | | | | [REDACTED] |

[REDACTED]



Budget Narrative

1. Salaries and Wages.

Two city staff are assigned to this project. The Project Manager is Water Utilities Director Terry Lauritsen, and the Grants Administrator is Nancy Warring. Salaries for these staff are the actual raw salary rate provided by the City. The salary totals are based on the assumption that the Project Manager will spend approximately 12 hours per month on the project at a direct labor rate of [REDACTED]. The Grants Administrator will spend approximately 16 hours per quarter on the project at a direct labor rate of [REDACTED]. The total project is expected to take approximately 18 months (6 quarters). These salary costs are in-kind contributions toward the project.

2. Fringe Benefits

Fringe benefits are calculated as follows:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

These fringe benefit costs are in-kind contributions toward the project.

3. Travel

No travel is proposed. Travel needed for City staff will be provided as needed for the project but is not included as part of the cost share or for reimbursement.

4. Equipment

No equipment is proposed.

5. Material and Supplies

No material and supplies are proposed. Routine materials and supplies needed for this study (such as office supplies and printing) will be provided by the City as needed for the project but are not included as part of the cost share or for reimbursement.

6. Contractual

The City of Bartlesville selects engineering based on qualifications, knowledge of the system, and experience. Bartlesville uses detailed man-hour estimates and billing rates to approve the fee proposal for services. Bartlesville proposes to utilize Tetra Tech Inc., who is a nationally recognized engineering consulting firm with experience in water and wastewater treatment facilities, wasteload allocation studies as well as environmental studies. Bartlesville has employed Tetra Tech over the last 25 years for improvements to all facets of the water and wastewater systems. The detailed man-hour and fee proposal for Tetra Tech is included in the Appendix as Table 4.

7. Other Expenses

No other costs are proposed.

8. Indirect Costs

No indirect costs are proposed.

9. Total Costs

The total project cost is \$421,029. The Federal share is 36% of that amount or \$150,000. The non-Federal share is 64% or \$271,029. These costs are summarized in Table 1 and Table 2.

APPENDIX





201 SW Keeler
Bartlesville, OK 74003

T 918-336-8708
F 918-337-0216
E Reception@Bartlesville.com

December 15, 2016

Katharine Dahm
Bureau of Reclamation
Water Resources and Planning
P.O. Box 25007
Denver, Colorado 80225

Dear Ms. Dahm:

The Bartlesville Regional Chamber of Commerce would like to offer our support for the City of Bartlesville's application to the Bureau of Reclamation for funding a study to determine the feasibility of water reuse.

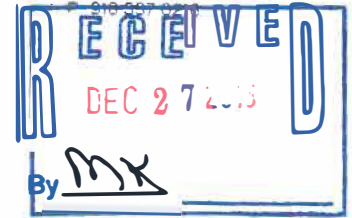
The Chamber represents the business and non-profit community in the Bartlesville, Oklahoma area. We have a membership of 750 in four communities in northeast Oklahoma. The availability of water is vital to the continued growth of the businesses and industries in our region. We have partnered with the City of Bartlesville on water issues in the past and have held a seat on the Bartlesville Water Resources Committee since it was formed in 2001.

Good water supply is essential to the welfare and growth of Bartlesville, and projects like this study present a wonderful opportunity to examine innovative solutions to our water supply issues.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sherri Wilt', is written in a cursive style.

Sherri Wilt, President/CEO
Bartlesville Regional Chamber of Commerce



December 15, 2016

Katharine Dahm
Bureau of Reclamation
Water Resources and Planning
P.O. Box 25007
Denver, Colorado 80225

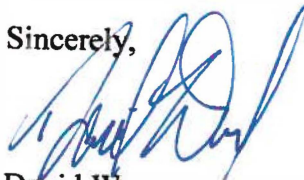
Dear Ms. Dahm:

On behalf of the Bartlesville Development Authority, I am pleased to support the City of Bartlesville's application to fund a feasibility study for water reuse.

The BDA facilitates the recruitment, retention and expansion of primary industry jobs, and new destination retail businesses for the Bartlesville Area. We support programs that protect and enhance economic development, and a reliable long term water supply is vital to our economic future.

Bartlesville does not have enough water from current sources to meet future demand or to handle a drought of record. We must diversify our water supply portfolio. New laws in Oklahoma allow Bartlesville to examine water reuse as a viable option for long-term water supply. The BDA supports the city's efforts to perform such studies and requests your consideration of their application.

Sincerely,



David Wood, President & CEO
Bartlesville Development Authority



Bartlesville Fire Department

Protecting Community Life, Health, Property and the Environment

By Delivering Quality Life and Fire Safety Services.

December 27, 2016

Katharine Dahm

Bureau of Reclamation

Water Resources and Planning

P.O. Box 25007

Denver, Colorado 80225

Dear Ms. Dahm:

I am pleased to support the City of Bartlesville's application to the Bureau of Reclamation for funding a study to determine the feasibility of water reuse.

Water supply is an important subject to the Bartlesville Fire Department. We must provide the public with an effective level of fire protection, which means we need a system that is reliable and delivers adequate amounts of water to meet fire flow requirements.

The water system also has a direct impact on fire insurance rates in Bartlesville. The Insurance Services Office classifies communities based on their ability to provide fire protection. It is based on many factors, and the community's water supply accounts for nearly half of their evaluation.

Unfortunately, Bartlesville does not have enough water to meet future demands. Therefore, the Bartlesville Fire Department supports any efforts to study and consider new options.

Sincerely,

Chief John Banks

Bartlesville Fire Department



December 28, 2016

Katharine Dahm
Bureau of Reclamation
Water Resources and Planning
P.O. Box 25007
Denver, Colorado 80225

Dear Ms. Dahm:

On behalf of the City of Dewey, I am pleased to support the City of Bartlesville's application to fund a feasibility study for water reuse.

The City of Dewey, which has a population of approximately 3,500 persons, is located north of Bartlesville and purchases all of our potable water from the City of Bartlesville. The availability of water is critical to the welfare and continued growth of our City. We support programs that diversify and ensure a reliable long term water supply.

The City of Dewey supports Bartlesville's study to examine innovative solutions such as water reuse to secure long term water supply for our community and requests your consideration of their application.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Trease".

Kevin Trease
Dewey City Manager

RURAL WATER DISTRICT NO. 2 WASHINGTON COUNTY, OK

P.O. Box 420 Ochelata, OK 74051 Phone: 918-535-2302 800-448-3264 FAX: 918-535-2981

December 27, 2016

Katharine Dahm
Bureau of Reclamation
Water Resources and Planning
P.O. Box 25007
Denver, Colorado 80225

Dear Ms. Dahm:

On behalf of the Washington County Rural Water District #2, I am pleased to support the City of Bartlesville's application to fund a feasibility study for water reuse.

The Washington County Rural Water District #2, which serves a population of approximately 3,000 persons, purchases our potable water from the City of Bartlesville. The availability of water is critical to the welfare and continued growth of our water district. We support programs that diversify and ensure a reliable long term water supply.

The Washington County Rural Water District #2 supports Bartlesville's study to examine innovative solutions such as water reuse to secure long term water supply for our water district and requests your consideration of their application.

Sincerely,

A handwritten signature in black ink, appearing to read "D.L. Anderson", written in a cursive style.

David L. Anderson
Manager, Washington County Rural Water District #2

OSAGE CO. RURAL WATER DISTRICT NO. 1

P. O. Box 420 Ochelata, OK 74051 Phone: 918-535-2302 800-448-3264 FAX: 918-535-2981

December 27, 2016

Katharine Dahm
Bureau of Reclamation
Water Resources and Planning
P.O. Box 25007
Denver, Colorado 80225

Dear Ms. Dahm:

On behalf of the Osage Rural Water District #1, I am pleased to support the City of Bartlesville's application to fund a feasibility study for water reuse.

The Osage County Rural Water District #1, which serves a population of approximately 1,100 persons, purchases our potable water from the City of Bartlesville. The availability of water is critical to the welfare and continued growth of our water district. We support programs that diversify and ensure a reliable long term water supply.

The Osage County Rural Water District #1 supports Bartlesville's study to examine innovative solutions such as water reuse to secure long term water supply for our water district and requests your consideration of their application.

Sincerely,



David L. Anderson
Manager, Osage County Rural Water District #1

RURAL WATER DISTRICT NO. 5 WASHINGTON COUNTY, OK

P.O. Box 420 Ochelata, OK 74051 Phone: 918-535-2302 800-448-3264 FAX: 918-535-2981

December 27, 2016

Katharine Dahm
Bureau of Reclamation
Water Resources and Planning
P.O. Box 25007
Denver, Colorado 80225

Dear Ms. Dahm:

On behalf of the Washington County Rural Water District #5, I am pleased to support the City of Bartlesville's application to fund a feasibility study for water reuse.

Washington County Rural Water District #5, which serves a population of approximately 1,000 persons, purchases our potable water from the City of Bartlesville. The availability of water is critical to the welfare and continued growth of our water district. We support programs that diversify and ensure a reliable long term water supply.

Washington County Rural Water District #5 supports Bartlesville's study to examine innovative solutions such as water reuse to secure long term water supply for our water district and requests your consideration of their application.

Sincerely,



David L. Anderson
Manager, Washington Co. Water District #5

RESOLUTION NO. _____

A RESOLUTION SUPPORTING THE SUBMISSION OF AN APPLICATION TO THE U.S. BUREAU OF RECLAMATION FOR THE FY 2017 WATERSMART: DEVELOPMENT OF FEASIBILITY STUDIES UNDER THE TITLE XVI WATER RECLAMATION AND REUSE PROGRAM.

WHEREAS, the City of Bartlesville desires to conserve and use water more efficiently, provide flexibility during water shortages, and diversify the water supply by studying the feasibility of water reclamation and reuse;

WHEREAS, the City of Bartlesville desires to submit an application for funding to the U.S. Department of the Interior, Bureau of Reclamation's FY 2017 WaterSMART: Development of Feasibility Studies under the Title XVI Water Reclamation and Reuse Program;

WHEREAS, the City of Bartlesville is capable of providing the amount of funding and in-kind contributions as required by the WaterSMART Program and specified in the funding plan of the application;

WHEREAS, the City of Bartlesville, through the City Manager, has the legal authority to enter into an agreement with the Bureau of Reclamation; and

WHEREAS, the City of Bartlesville will work with the Bureau of Reclamation to meet all established deadlines for entering into a grant or cooperative agreement.

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF BARTLESVILLE, OKLAHOMA:

That the City Council of the City of Bartlesville has reviewed and is in support of the City of Bartlesville 's application to the FY 2017 WaterSMART: Development of Feasibility Studies under the Title XVI Water Reclamation and Reuse Program.

PASSED BY THE CITY COUNCIL AND APPROVED BY THE MAYOR OF THE CITY OF BARTLESVILLE, OKLAHOMA, THIS 16TH DAY OF JANUARY, 2017.

Mayor Tom Gorman