



Stigler Lake Dam/ Water Supply Project

Application to:

**WaterSMART Drought Response Program:
Drought Resiliency Projects for FY 2024
NOFO No: R24AS00007**

**U.S. Department of Interior
Bureau of Reclamation**

November 7, 2023



Applicant:

Stigler Municipal Improvement
Authority (SMIA)
115 S Broadway
Stigler, OK. 74462

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1. TECHNICAL PROPOSAL

1A. Executive Summary

Applicant Name: Stigler Municipal Improvement Authority (SMIA)
City, County, State: Stigler, Haskell County, Oklahoma
Applicant Eligibility: The SMIA has water delivery authority for the City of Stigler.
Task: D – Domestic Water Supply Projects
Funding: Task D: Up to \$10M/agreement that can be completed within three years
Applicant Category: Domestic Water Supply Projects: Task D (Oklahoma)

Project Summary: The City of Stigler, OK, requests \$8,516,328 in Reclamation funding to rehabilitate Stigler Lake Dam. Stigler Lake is the sole water source for Stigler and the emergency backup supply for Haskell County. The dam is highly vulnerable to failure with a rating of “unsatisfactory” (lowest possible rating) by the Oklahoma Water Resources Board, and classified as having “high hazard potential.” A 2020 inspection noted that excessive uncontrolled seepage and severe deterioration of the downstream slope could lead to failure of the dam under normal operating conditions. Failure of the Dam would eliminate the City’s water supply, result in significant property damage and possible loss of life, and would have devastating impacts on the local economy. The proposed project will raise the dam crest, flatten the

downstream slope, add a toe drain to address hydraulic and slope stability deficiencies, replace the existing spillway, and install a seepage barrier/cutoff system. This work will require the lake to be drained; a new buried pipeline will be constructed to convey water from Lake John Wells (the distant freshwater source lake) to the Stigler Lake Water Treatment Plant to ensure seamless delivery of water supplies. The project area is highly vulnerable to drought and is recovering from a drought that spanned from 2022 to early 2023. In 2022, the County was designated as a primary natural disaster area by the USDA. The area experienced five distinct periods of drought between 2000 and 2023 that were classified as severe to exceptional. Given the history of events, it is likely Stigler will continue to experience drought conditions, making the resiliency of its water supply even more critical. The beneficiaries of the project are among the State's most vulnerable. Stigler and Haskell County are rural, home to many older adults, have a Median Household Income that is far below the State and Nation, and is located within the boundaries of the Choctaw Nation of Oklahoma. Replacing the dam is a priority project that is listed in Stigler's *Local Hazard Mitigation Plan* and in the draft *2025 Oklahoma Comprehensive Water Plan*.

Project Start Date, Duration, and Estimated Completion Date: The proposed project is classified under Task D (Domestic Water Supply Projects). The project duration will be three years, from October 31, 2024, through October 31, 2027.

Federal Facility: The Project is not located on a federal facility, but the entirety of Haskell County (including the City of Stigler and the Stigler Lake Dam) is located in the territory of the Choctaw Nation of Oklahoma. Stigler's water supply serves a significant Native American population both in the City and throughout the County.

Background Information

Service Area Description. The City of Stigler (City) is a small rural town (population 2,703) located in Haskell County (population 11,561) in the southeastern quadrant of Oklahoma. Haskell County is located within the territory of the Choctaw Nation of Oklahoma which spans a total of 11 counties in southeast Oklahoma. The Stigler Water Department provides all of the drinking water to City residents and backup/emergency supplies to County residents.

Population Served. Stigler and Haskell County residents are primarily White with a substantial Native American population. The U.S. Census Bureau indicates that 17% of Stigler residents are Native American, but City officials believe the percentage is closer to 20% or higher (with the discrepancy likely due to Census undercounting and non-responses). The area is considered rural and highly disadvantaged with median household income and poverty rates that are significantly worse than the State and Nation, see Table 1. Additional details about the population are provided in Evaluation Criteria A1a.

Services Provided. Stigler's Water Department provides all of the drinking water to the City's 2,703 residents and is the sole source of backup/emergency supplies for the entire County, i.e., approximately 9,000 additional residents. The City's Stigler Municipal Improvement Authority owns the water supply infrastructure, and manages the Water Department and the water supply. The Authority also provides sewer, trash collection, and street maintenance and

Table 1: Disadvantaged Status: Stigler v. Haskell County, State, and U.S.

Measure of Disadvantage	City of Stigler	Haskell County	State of OK	U.S.
Median Household Income (MHI)	\$31,425	\$43,622	\$59,673	\$74,755
Poverty Rate	27.6%	21.6%	15.7%	12.6%

Source: U.S. Census Bureau, Geography Profiles (<https://data.census.gov/profile>)

improvements. The Water Department’s interconnection with Haskell County is critically important. The County’s water infrastructure is aging and they rely on Stigler in low-supply situations. During the winter storm of 2023, the County experienced three full weeks of below freezing temperatures. The County’s water system is not designed to operate in those extreme conditions and was down for nearly a month. During that time, Stigler’s water infrastructure performed optimally, and Stigler provided all of the County’s drinking water. The City’s water system also includes dedicated pumps to assist the County with water pressure issues.

The City’s water customers include 82% residential, 17% commercial, and 1% industrial, and a total of 1,205 service connections. During the last four years, average consumption has ranged from 7.6 to 8.1 million gallons per month, with total annual consumption ranging from 85 to 98 million gallons, see Table 2. The rising consumption from year to year is a reflection of population and tourism growth. The City received a grant from the Choctaw Nation of Oklahoma in 2020 to convert 100% of the City’s water meters to smart meters, which enables customers to monitor consumption in real-time, supports more precise billing, and enables fast detection of leaks on customers’ property and leaks in the distribution system.

Table 2: Water Consumption Data for Stigler Municipal Improvement Authority

Consumption	FY 2023 (to-date)	FY 2022	FY2021	FY2020
Average Monthly	7.6M gal	7.6M gal	8.1M gal	7.1M gal
Total Annual	91.4M gal	91.2M gal	98.2M gal	85.0M gal

Water Supply Sources

Stigler Lake is the sole water supply for the City of Stigler. The manmade lake is formed by the Stigler Lake Dam, see Figs. 1 and 2, below. The Dam was constructed in 1939 (84 years old) and is a 1,900-foot-long earthen embankment with a maximum height of approximately 40 feet that impounds a small watershed on an unnamed stream. The upstream slope is approximately concave with a 1H:1V to 2H:1V slope from the crest to the normal operating pool and is surfaced with rock riprap. Bathymetric surveying indicates that the upstream slopes

**Stigler Municipal Improvement Authority
Stigler Lake Dam/Water Supply Project**

below normal pool typically range between 3H:1V to 4H:1V. The downstream slope is variable and is vegetated with native grasses, weeds, and woody brush. The 45-foot wide service spillway is an uncontrolled earthen channel lined with concrete paving that discharges to a natural rock-lined channel. The Water Treatment Plant is located at the base of the dam. Stigler Lake is fed by John Wells Lake (the freshwater source lake; 1,352 acre-feet capacity) located approximately one mile southeast of Stigler Lake. Raw, untreated water from Lake John Wells is pumped to a hilltop and then gravity-drained in a creek bed to a floating intake in Stigler Lake that leads to the Water Treatment Plant at the base of the Stigler Lake Dam. There is no continuous pipeline from Lake John Wells to Stigler Lake. Stigler Lake water levels are monitored daily at the Water Treatment Plant, and additional pumping from Lake John Wells Lake is conducted as needed (all processes are automated).



Figs. 1 and 2: Stigler Lake Dam. Top: The earthen dam and reservoir on the left. Bottom: The downstream dam face showing seepage.

Stigler Lake’s storage capacity (in an unconstrained year) is as follows:

- Top of the dam (elevation 628.4 ft)
= 474 AF
- Spillway crest (elevation 625.5 ft)
= 442 AF
- Normal pool (elevation 521 ft)
= 300 AF

The City estimates that the 10-year average annual water supply is 300 AF.

1B. Project Location

The proposed project is located in Stigler, Oklahoma (Haskell County) in the southeastern quadrant of the State, approximately 150 miles west of Oklahoma City. Both the City and the County are rural; Haskell County has 577 square miles of land area with just 11,561 residents. The City and County are located within the territory of the Choctaw Nation of Oklahoma, see Fig. 3. Stigler Lake and Stigler Lake Dam are located, see Fig. 4:

- At latitude 35° 14' 25.08" North, and longitude 95° 06' 44.57" West.
- At Section 20, Township 9 North, Range 21 East of the Indian Meridian, Haskell County.
- Within the Stigler city limits on the south side of town at the intersection of SE 10th Street and SE North Street.

Fig. 3: Geographic Location



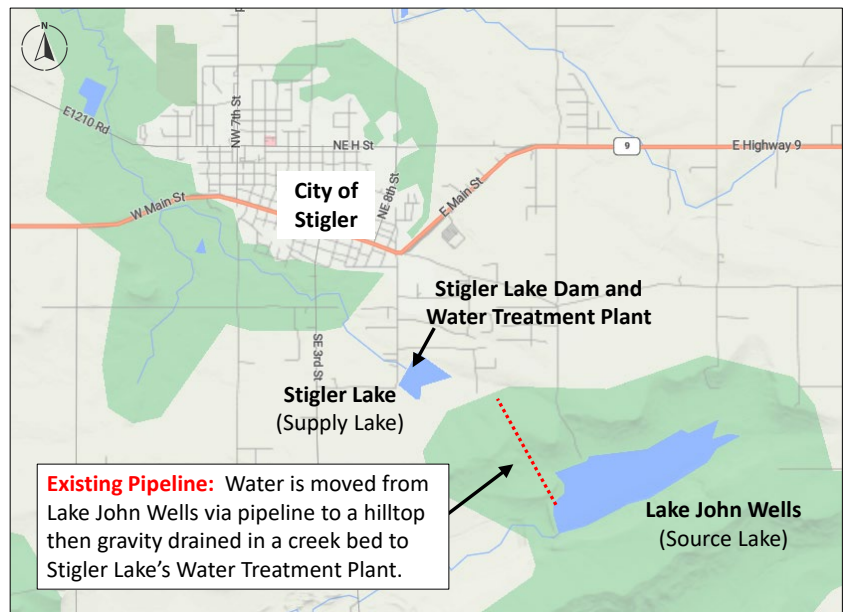
Fig. 4: Site Map and Existing Conditions

1C. Technical Project

Description

Background/Description of the Problem

The Oklahoma Water Resources Board (OWRB) is the state agency responsible for oversight and approval of the construction, repair, and alterations of certain dams in the State, including Stigler Lake Dam (No. OK 00699, National Inventory of Dams). In 2021, OWRB conducted an inspection of Stigler Lake Dam (for year 2020) which found seepage, erosion, and potential embankment stability issues. The inspection found the general condition of the dam to be “poor” and that it presented a “high hazard potential because if the dam were to fail, the failure would probably cause loss of human life” (OWRB, Draft *Emergency Order for Stigler Lake*, October 2023). A dam breach would result in a complete loss of the Lake which is the City’s sole water supply. The inundation zone from a dam breach is 3.27 square miles and includes 214 downstream structures and the homes of approximately 160 residents.

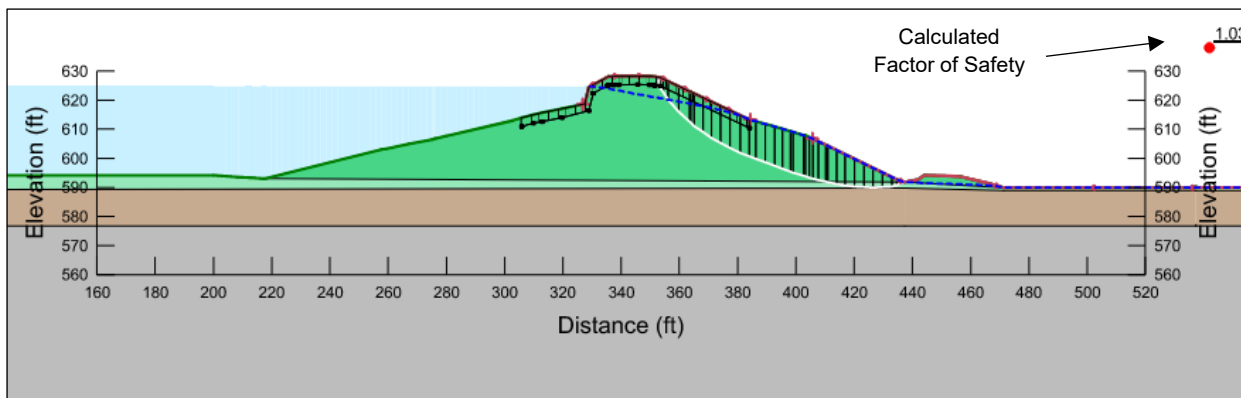


The inspection found the general condition of the dam to be “poor” and that it presented a “high hazard potential because if the dam were to fail, the failure would probably cause loss of human life” (OWRB, Draft *Emergency Order for Stigler Lake*, October 2023). A dam breach would result in a complete loss of the Lake which is the City’s sole water supply. The inundation zone from a dam breach is 3.27 square miles and includes 214 downstream structures and the homes of approximately 160 residents.

In response, the City engaged Freese and Nichols, Inc. (FNI, engineering consultants) to further study the deficiencies. The resulting *Stigler Lake Dam Evaluation and Rehabilitation*

Alternatives Study (March 2023¹) found significant seepage along the downstream embankment slope and toe, surface erosion, and a service spillway in poor condition, see Fig. 5.

Fig. 5: Stigler Lake Dam (EXISTING Conditions)



Subsequently, FNI performed a geotechnical and geophysical investigation of the earthen embankment to support a geotechnical evaluation of the structure. The investigation included ten soil test borings with in-situ sampling, electrical resistivity tomography, and a geotechnical laboratory test program to develop subsurface stratigraphy and engineering properties to evaluate the embankment dam. Topographic and bathymetric surveys of the downstream and upstream slopes were also included in the field program. FNI performed seepage and slope stability analyses to evaluate subsurface water conditions within the embankment dam and to assess whether the existing structure meets the minimum factors of safety required by the OWRB for slope stability. Concurrently, FNI evaluated the capacity of the reservoir and service spillway for compliance with OWRB hydraulic criteria.

The *Study's* ultimate findings were that the embankment (dam):

- Does NOT meet OWRB criteria for slope stability, with significant surface erosion, uneven slopes, and erosion gullies;
- Does NOT meet accepted practices for controlling seepage, with substantial seepage (138 gallons per minute; 198,720 gallons per day; 222.5 AFY) that impairs slope access and maintenance activities (see photograph above showing seepage in Fig. 2); and
- Does NOT meet spillway hydraulic capacity requirements, with the surface lining cracked, damaged, and overgrown with vegetation.

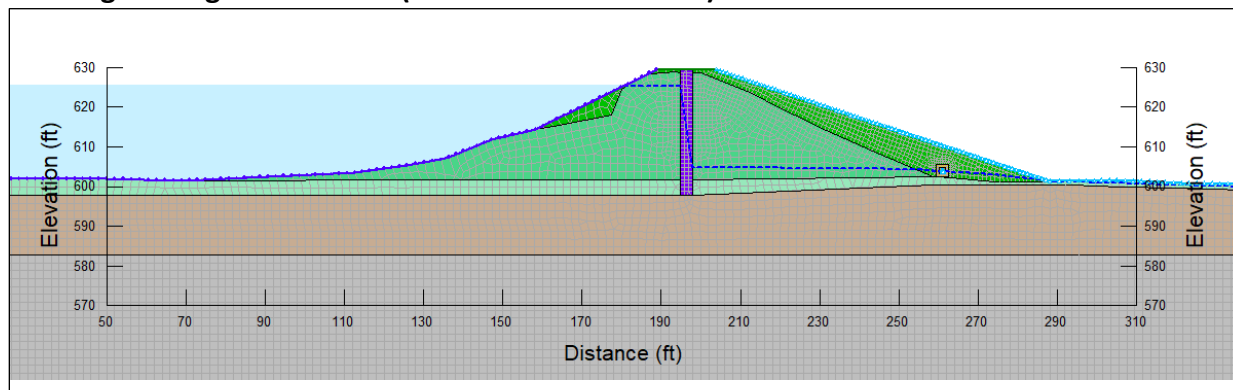
In summary, the *Study* found that extensive rehabilitation/reconstruction is needed to bring the 84-year-old dam into compliance with OWRB safety criteria. The *Study* considered several design alternatives, and ultimately recommended the preferred alternative (described below), noting that additional refinements will need to be made during the design phase. The City immediately engaged FNI for design, permitting, and bid phase development which began on March 30, 2023, and will be complete in 18 months, i.e., September 2024.

¹<https://files2.freese.com/message/smytyslaHsBqTimjETfrLC>

Proposed Project

In order to protect Stigler's sole source of drinking water, as well as human life and property, the proposed project will raise the dam crest, flatten the downstream slope, add a toe drain to address hydraulic and slope stability deficiencies, replace the existing spillway, and install a seepage barrier/cutoff system, see Fig. 6. Other minor deficiencies will be addressed including vegetation control in the outlet channel and upstream slope, and filling voids in the upstream riprap.

Fig. 6: Stigler Lake Dam (PROPOSED Conditions)



Discussion and Approach. Initial hydraulic and geotechnical analyses indicated that raising the dam (up to 1.4 feet in select locations) will provide a consistent elevation of approximately 629.4 feet and prevent the dam from overtopping during the regulatory design inflow event (50% Probable Maximum Flood). The raise will be accomplished by adding compacted earth fill. A seepage barrier system is recommended in conjunction with the slope flattening/drainage system to mitigate seepage and slope stability deficiencies. The system includes a vertical cement bentonite cutoff wall along the dam crest, flattening the downstream slope to 3H:1V, and installing a toe drain system. These items would bring identified dam safety items into compliance with OWRB criteria. The cutoff wall will be installed using a one-pass trenching system that mixes the existing soils with cement and bentonite to create a vertical, low-permeability seepage barrier. The cutoff wall will be about 1,400 feet long and installed along the centerline of the crest. It will extend to the sandstone bedrock which varies from about 20 to 40 feet deep along the dam alignment. Slope flattening will be accomplished by adding imported compacted earth fill. The toe drain will consist of a collection trench filled with sand and gravel surrounding perforated plastic pipe. The vast majority of the seepage will be stopped by the cutoff wall, but the toe drain will provide additional seepage control. To address the condition of the spillway concrete lining the existing spillway will be re-constructed in the same location. The spillway is an open channel that is rock paved with concrete. The concrete has deteriorated to the point of needing replacement.

Temporary dewatering of Stigler Lake will be required for an extended period of time in order to raise the dam level, install the cutoff wall, construct the drainage system, and flatten the downstream slope. To accomplish the dewatering of Stigler Lake, the inflow from Lake John

Wells will be cut off. All of the water in Stigler Lake will be processed through the Water Treatment Plant until the floating intake gets too low. The Contractor will then pump the remaining water through the spillway and down the outlet channel which goes into a nearby unnamed creek.

To maintain the water supply during dam rehabilitation, a new buried water pipeline will be constructed to route raw water from Lake John Wells (the source lake) to Stigler Lake's Water Treatment

Plant, see Fig. 7. The new buried pipeline will bypass the gravity-draining of raw water from Lake John Wells through the creek bed to the floating intake on Stigler Lake, and serve as the new permanent conveyance for water from Lake John Wells to Stigler Lake. After dam rehabilitation is complete, the floating intake on Stigler Lake will be put back into service, and the gravity-draining approach will be operational again and will serve as an important backup system to the new permanent buried water pipeline.

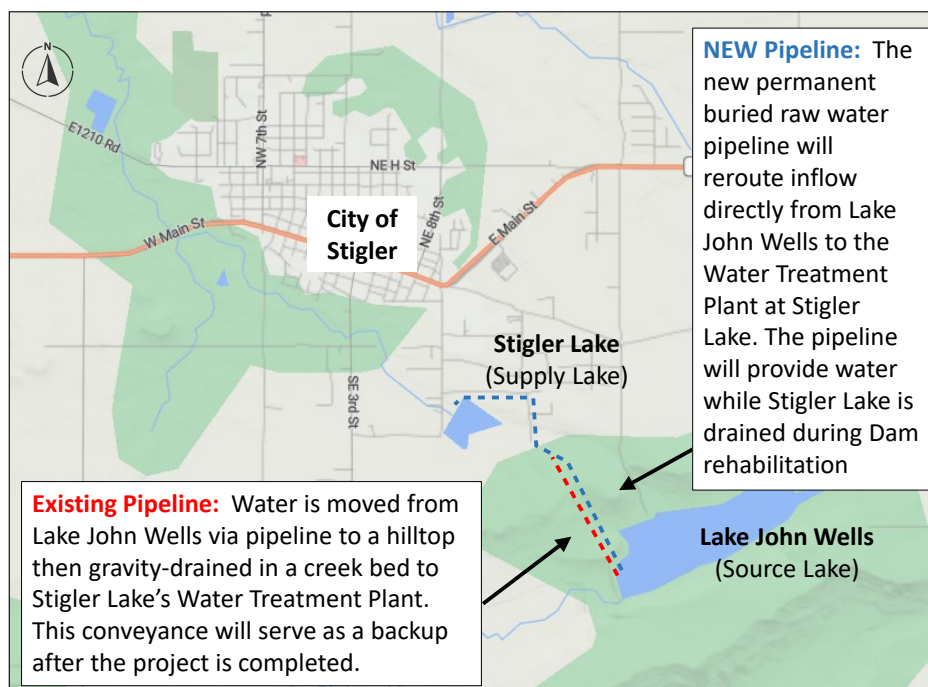


Fig. 7: Water Conveyance: Existing v. Proposed Conditions

Goals and Objectives

Goals:

1. Protect Stigler's sole water supply from a potential dam failure or breach.
2. Protect life, property, and the economy from a potential dam failure or breach.
3. Provide resiliency of the water supply in the face of ongoing drought and worsening climate change concurrent with high vulnerability of the dam to failure and loss of the water supply.
4. Practically eliminate ongoing water loss due to seepage.

Objectives:

Rehabilitate Stigler Lake Dam:

1. Pipeline Construction:
 - a. Construct a new permanent buried pipeline (8,900 LF) from Lake John Wells to the Stigler Lake Water Treatment Plant to ensure water delivery during the dam rehabilitation.
2. Dam Construction:

- a. Drain Stigler Lake.
- b. Raise the dam elevation to 629.4 feet.
- c. Construct the seepage cutoff wall.
- d. Flatten the slope to improve stability.
- e. Install a toe drain in the dam to collect seepage.
- f. Reconstruct the concrete overflow spillway.
- g. Address other minor deficiencies including vegetation.

Work to be Accomplished and Approach

Design, permitting (including NEPA review and approval), and bid proposal documents are currently in-process/under development and will be complete by October 2024 (additional details are provided in Evaluation Criteria E). This pre-construction work was funded by a grant from the Choctaw Nation of Oklahoma. The City will competitively procure the services of two construction contractors to complete the proposed project: one for the pipeline construction and one for the dam rehabilitation. The City anticipates that this approach will be the most cost-effective way to proceed. Since the pipeline construction and dam rehabilitation work are so different and specialized, the City suspects that a single master contractor would need to subcontract for one component or the other, which could increase costs. Also, as noted above, Stigler Lake will need to be dewatered in order to work on the dam. Therefore, construction of the pipeline from Lake John Wells to Stigler Lake must be completed first in order to ensure a seamless reliable supply of water while work is completed on Stigler Lake Dam.

1D. Performance Measures

The following performance measures will be used to quantify actual project benefits.

- 1. Protection of the Sole Water Supply.** The normal capacity of Stigler Lake is 300 AF, which is the amount of drinking water that will be protected by the project, which will avert a dam failure or breach.
- 2. Additional Water Supplies by Eliminating Seepage.** The project's new cutoff wall will practically eliminate seepage losses which will add to available supplies. Seepage is estimated at 222.5 AFY (138 gallons/minute; 198,720 gallons/day; 72.5M gallons/year).
- 3. Improved Management of the Water Supply.** The new buried raw water pipeline from Lake John Wells to Stigler Lake will create a redundancy that will enhance operational flexibility. After the project is complete, the current gravity-draining conveyance will serve as an important backup system. Thus, the proposed project will support better management of Stigler Lake's 300 AF normal capacity.

1E. Evaluation Criteria

Evaluation Criterion A—Project Benefits (30 points)

Sub-Criterion A1a. Domestic Water Supply Projects Task D

Description of the Beneficiary Community

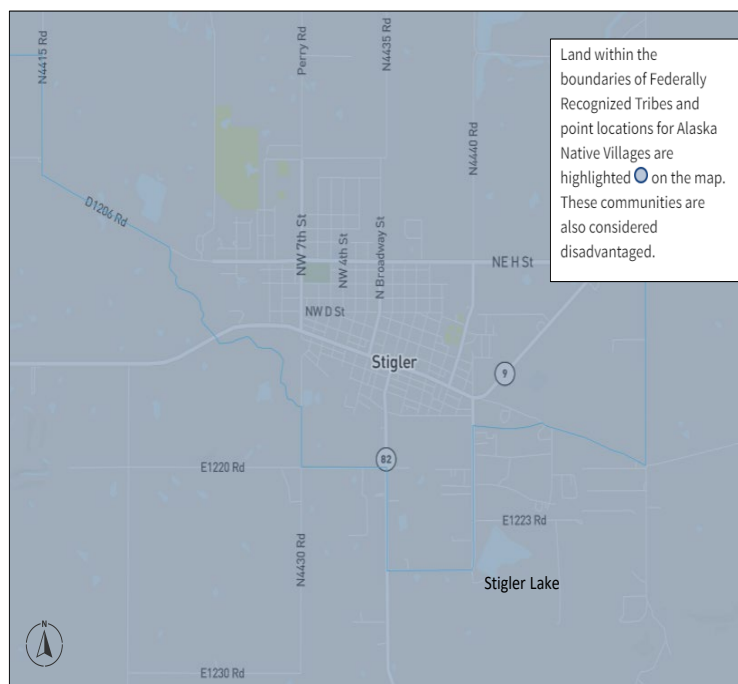
The project will primarily serve the rural City of Stigler (pop. 2,703), and provide backup emergency supplies to Haskell County (approximately 9,000 additional residents). The entire area is rural and located within the boundary of the Choctaw Nation of Oklahoma. The Climate and Economic Justice Screening Tool (CEJST), see Fig. 8, shows that the entirety of the City, its Census Tract, and the surrounding Census Tracts are classified as disadvantaged (i.e., dark gray shading). The Census Tract is considered disadvantaged because it meets more than one of CEJST's burden thresholds, it meets the associated socioeconomic threshold (see inset next page, CEJST Summary), and it is located on the lands of a Federally Recognized Tribe.

As illustrated earlier in Table 1 (Disadvantaged Status: Stigler v. Haskell County, State, and U.S.), the median household income and poverty rates for Stigler and Haskell County are significantly worse than the State and the U.S. According to FEMA's National Risk Index², Haskell County has very high susceptibility to the adverse impacts of natural disasters when compared to the rest of the U.S.:

- Social Vulnerability (Score: 80.49 – Very High)
- Community Resilience (Score: 10.63 – Very Low)

This rural community is also home to a significant number of residents who are elderly or disabled. The percentage of City and County residents aged 65 and older (19% and 20%, respectively) is significantly higher than the State (16.5%).

Fig. 8: CEJST Map – Stigler, OK



Source: CEJST, <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

² FEMA National Risk Index, <https://hazards.fema.gov/nri/map>

The impact of natural disasters is greatest on disadvantaged populations simply because of those populations' inability to manage the impact on their daily lives. The CEJST Summary (see inset) shows that climate change-related loss rates for life and property in this Census Tract are estimated among the highest in the nation (90th percentile or above). If their house is inundated due to the dam failure, a family may not be able to afford to go to a hotel (and there are few hotels located in the local area). If the water supply is lost, they may not be able to afford to travel to buy water in distant towns. The lack of disposable income is a major constraint in the ability to withstand the immediate impacts of a natural disaster. According to the National Hazards Center, people on the margins suffer first and worst, and factors such as race, gender, age, disability, and income determine who is hit hardest and who recovers fastest. The CEJST data show that this Census Tract is among the worst in the nation for chronic diseases such as heart disease and diabetes, which puts additional burdens on residents. In the event of a dam failure, the long-term effect would likely be a significant increase in the cost of water and other public services. City officials note that some residents already have to decide whether to buy food or pay their water bill. A doubling of the monthly water bill due to the loss of the water supply would be untenable for many residents.

CEJST SUMMARY

CENSUS TRACT INFORMATION

- Number: 40061279200
- County: Haskell County
- State: Oklahoma
- Population: 4,209

1. **DISADVANTAGED** ✓
(86th percentile)

Burden Thresholds:

1. *Climate Change (losses related to natural disasters)*

- Expected Building Loss Rate (91st percentile)
- Expected Population Loss Rate (93rd percentile)

2. *Health Indicators*

- Heart Disease (96th percentile)
- Asthma (87th percentile)
- Diabetes (84th percentile)
- Low Life Expectancy (87th percentile)

Primary Project Purpose: Secure Domestic Water Supplies
Need for the Project.

Community Lacks Reliable Access to the Water Supply. **Stigler Lake is the sole water supply for the City and the only emergency backup supply for Haskell County.** As described earlier, inspections and studies completed in the last two years demonstrate that the dam is in poor general condition. The OWRB has classified the dam as having “high hazard potential” for failure under normal conditions. Extreme conditions—such as a severe flood—could lead to an immediate failure. The average age of dams in the U.S. is 61 years³ old; Stigler Lake Dam is 84 years old. Stigler Lake Dam’s serious vulnerability markedly reduces the reliability of the water supply. Failure of the dam would mean immediate loss of the Lake’s reservoir and the inability to hold water that could be moved from Lake John Wells (the source lake) to the Stigler Lake Water Treatment Plant. This

³FEMA, National Dam Inventory, <https://www.fema.gov/emergency-managers/risk-management/dam-safety/national-inventory-dams#:~:text=Information%20in%20the%20National%20Inventory,average%20age%20of%2061%20years.>

loss would affect Stigler's 2,703 residents and the 9,000 additional County residents who rely on Stigler for their backup supply. Temporarily, the City would have to haul water at great expense to support the City and County, which is an untenable situation.

Dam Breach/Failure Presents a Hazard to Life, Property, and the Economy. Failure of the Stigler Lake Dam would have catastrophic impacts far beyond the devastating loss of the water supply. The OWRB has classified the dam as having "high hazard potential," which is a FEMA classification assigned to dams that, in the event of failure or mis-operations, would result in the loss of human life and significant property damage. The City conducted a breach analysis in 2014 that used a 2D and 1D/2D modeling approach to simulate a dam failure, focusing on Stigler's proximity to Lake Stigler and the resulting flood risks to the southern and southwestern parts of the city. The dam's breach inundation zone is 3.27 square miles and includes the homes of approximately 160 City residents and 214 structures. Specifically, the convergence of Snake Creek and its unnamed tributary (located east and south of the City) pose a significant threat. In the event of a sunny day breach, both the unnamed tributary and a portion of Snake Creek would be inundated, impacting nearby structures. Downstream of the dam, small residential developments along the unnamed tributary would also face substantial consequences from the sunny day breach and from the 50% Probable Maximum Flood (PMF) scenario. The analysis highlights that the rail line running along the southern and southwestern edge of Stigler acts as a partial levee, providing some protection and reducing the potential for severe flooding within the city limits. The 50% PMF floods follow a similar pattern to the sunny day breach but with greater depth and extent (a significant portion of the additional flooding in the 50% PMF scenario is due to the storm itself). In addition to the structural impacts, the report emphasizes the significant risk to the City's Wastewater Treatment Plant owned by the Stigler Municipal Improvement Authority, located adjacent to Snake Creek west of the City. State Highway (SH) 9 is threatened particularly where it crosses Snake Creek. SH 9 is Main Street in Stigler, and is home to the majority of the City's businesses; it is also the main road in and out of the City, and the connection to the main road leading south out of town.

The economic impacts of a dam breach would cripple the City's economy and reverberate throughout the County. The City has experienced considerable economic growth alongside investments in infrastructure that are drawing tourists to Stigler. Most notable is the Stigler Sports Complex that was completed in July 2019, see Fig. 9. The \$4.5 million complex boasts two softball fields, two baseball fields, a multipurpose field primarily used for soccer and stickball, two 14' batting cages, a playground, a catch and release fishing pond, first rate concessions, and LED lighting throughout. The Complex draws youth baseball, softball, and soccer tournaments from around the region. The City estimates that they had a minimum of 145,000 visitors last year (based on cellphone location data; only includes visitors with location tracking turned "on"). This tourism boom has led to a 38% increase in the City's sales tax base over the last three years. Building on the success of the Sports Complex, the City is expanding its vision to be a regional destination. Other projects include a new 9,000-square-foot skate park (nearly complete), a paved bicycle trail, and a dirt mountain bike track (the latter two projects funded by a grant from the Oklahoma Tobacco Settlement Endowment Trust). The Sports Complex and other planned destinations rely on water for operations.



Fig. 9: Stigler Sports Complex. The complex is a new economic driver that has significantly expanded the City's tax base.

Reliable water is also key to preserving the economic investments made by the Choctaw Nation of Oklahoma. The City is located within the Nation's tribal boundaries, and the tribe has made significant investments in the City. These tribal facilities, their services, and the jobs they provide, depend on safe, reliable, and affordable drinking water. The tribal facilities include:

- The new \$3.4 million Health Clinic expansion which consolidated multiple departments into a single location including: family practice, laboratory, pharmacy, and more;
- The Community Center (food services for older adults and Head Start for children);
- The Housing Authority which has built 50 new housing units in Stigler over the last three years (including affordable rental units, lease to purchase homes, and housing for elders) with more to come in the future;
- The Choctaw Casino-Stigler; and
- A maintenance facility.

The tribe has also invested substantially in the City's infrastructure. They provided grant funding for the initial engineering study for the proposed project (\$1.2 million); \$1.7 million toward the City's \$4.5 million Sports Complex described above; \$400,000 to rehabilitate a water storage tank and replace all of the City's 1,300 standard water meters with smart meters; and much more.

City and County officials note that reliable water is a limiting factor to economic growth, and the loss of the water supply could cripple the growth that the City has achieved.

How Project Increases Reliable Access to Domestic Water Supplies. The project will secure reliable access to Stigler's sole water supply. The quantity of water secured is estimated as the normal pool level of Stigler Lake which is 300 AF. This is the sole water supply for Stigler's 2,703 residents, and the emergency backup supply for 9,000 additional residents throughout Haskell County. The specific ways in which the project will secure reliable access are described below.

Secure the Dam to Prevent Breach/Failure. A total rehabilitation of the dam will eliminate the potential for breach or failure, which will secure a safe, affordable, and reliable water supply. Expert engineers have inspected and studied the dam over the last two years (as described earlier), and recommended a design that will address the stability, seepage, and erosion issues that are at the heart of the dam’s vulnerability.

Create a Backup Conveyance for Water from Lake John Wells. Lake John Wells is the freshwater source lake that feeds raw water to the Stigler Lake Water Treatment Plant via an *exposed* conveyance system that uses pumps and gravity-draining through a creek-bed to Stigler Lake. Moving water from the source lake (Lake John Wells) to the supply lake (Stigler Lake) is a critical function of the water supply system and infrastructure. The exposed nature of this conveyance system presents additional hazards to the water supply. Flooding, vandalism, etc., could impact the flow or alignment of the creek, thus impacting the quality and quantity of water that reaches the Stigler Lake Water Treatment Plant. The proposed project will construct a new *buried* pipeline from Lake John Wells to the Stigler Lake Water Treatment Plant to provide water supplies while Stigler Lake is empty and the dam is under reconstruction. The buried pipeline will be impervious to flooding, vandalism, and other above-ground threats. Importantly, this pipeline will serve as the future permanent conveyance of raw water between the source lake and the supply lake, with the (current) exposed conveyance system then serving as a new backup. The project will result in two conveyance methods to move raw water from Lake John Wells to the Stigler Lake Water Treatment Plant, thus further increasing reliable access to drinking water for City and County residents.

Useful Life of the Project. The useful life of the rehabilitated dam and the new pipeline is estimated to be 100 years.

Sub-Criterion A2.a: Climate Change

Natural Hazard Risk Reduction. The OWRB has deemed the dam as having “high hazard potential” even in normal conditions. The dam’s vulnerability increases with the onslaught of a natural disaster such as flood, earthquake, or tornado. Rehabilitating the dam will reduce the risk that these natural hazards could cause a dam failure, which would have catastrophic impacts to the water supply, the residents, their properties, and the local economy.

New Water Conveyance Backup System Contributes to Resiliency. As described earlier, the project will construct a new buried pipeline from Lake John Wells (the freshwater source lake) to the Stigler Lake Water Treatment Plant. This pipeline is needed to supply water to Stigler while Stigler Lake is drained to rehabilitate the dam. After the new pipeline is constructed, the previous conveyance from Lake John Wells to Stigler Lake (i.e., the *exposed* conveyance system that uses pumps and gravity-draining through a creek-bed to Stigler Lake) will serve as a backup system. Adding redundancy to the water supply infrastructure will enhance resiliency of the entire water supply. Climate change will increase the number and severity of extreme weather events such as drought, flooding, and extreme cold, all of which could put pressure on Stigler’s water infrastructure. Adding backup systems will allow the City to continue to provide safe, reliable, and affordable water to its customers even in the event that some components of the system are down or fail.

Sub Criterion A2.b: Environmental Benefits

Enhanced Resiliency of Snake Creek and its Unnamed Tributaries. The 2014 dam breach analysis simulated a dam failure and its impacts. The analysis found that a sunny day breach would inundate both Snake Creek and its unnamed tributary which are located south and west of the City. This inundation would create a number of risks for these surface waters including riverbank erosion and collapse, and pollutant loading that can include sediment, trash, sewage overflow, animal waste, motor oil, fertilizers, paint, construction debris, and more. These issues could degrade water quality, smother aquatic organisms, and impact the waters' beneficial uses for riparian and other wildlife.

Other Environmental Benefits. Wildlife in the project area would be negatively impacted by a dam failure. Floodwaters could kill land-dwelling wildlife in the inundation zone, and destroy nests, food sources, and habitat for all area wildlife. Endangered or threatened species in the project area⁴ may be protected by eliminating the risk of dam failure including: Mammals (Northern Long-eared Bat (Endangered) and Tricolored Bat (Proposed Endangered)); Birds (Piping Plover (Threatened) and Red Knot (Threatened)); Reptiles (Alligator Snapping Turtle (Proposed Threatened)); and Insects (American Burying Beetle (Threatened) and Monarch Butterfly (Candidate)). Eliminating the risk of dam failure would also protect the fish in Stigler Lake (bass, catfish, crappie, and perch) which would otherwise be lost in a dam failure. A dam failure would inundate an area of approximately 3.27 square miles. While there are no critical habitats in the project area, preventing a dam failure will protect all habitats in the inundation zone.

Sub Criterion A2.c: Other Benefits

Support for Other Essential Services. The resiliency of the water supply is important for critical and essential services including:

Fire Protection. The 19-member Stigler Volunteer Fire Department relies on a team of 18 volunteers and a reliable supply of water to fight fires in the City and to provide mutual-aid support to 11 other volunteer fire departments in Haskell County.

Wastewater Treatment. Stigler opened its new wastewater treatment plant west of the City in 2017 at a cost of \$8 million. Properly treated wastewater is vital for preventing disease and protecting the environment, and a reliable water supply is critical for wastewater treatment.

Police and Other Municipal Operations. The City relies on the water supply in order to manage every municipal function including critical functions such as law enforcement; street maintenance; oversight of the water distribution system; etc.

Healthcare Facilities. Several health care facilities are located in Stigler that rely on the water supply to provide ongoing and emergency care for residents. These facilities include the Stigler Health and Wellness Center, the Choctaw Nation Health Clinic, and the Haskell County Nursing Center (an 80-bed nursing home located in Stigler).

Support for Other Economic Investments. The City and its partners (including the Choctaw Nation) have made other significant investments in the City's economy. These investments require a reliable water supply in order to grow and flourish. Examples include:

⁴ U.S. Fish and Wildlife Service, Information for Planning and Consultation (IPaC), <https://ipac.ecosphere.fws.gov/location/RO7DGZ7KWFC7JJR64TZ27WD6KM/resources>

Stigler Regional Airport. The City-owned airport was developed in 2006, and includes a 4,286-foot asphalt runway on an 80-acre site, security gates, and a 24-hour self-service fuel station. The \$12 million airport was developed using city and private investments, and is currently home to a major mine service company.

Two City-Owned Industrial Parks. The two industrial parks are home to 20 industrial customers and provide great locations and opportunities for new businesses.

Evaluation Criterion B—Planning and Preparedness (20 points)

Sub-Criterion: Domestic Water Supply Projects Task D

The Project is Supported by the City of Stigler’s Updated Local Hazard Mitigation Plan (Draft, August 10, 2023). The City of Stigler’s updated *Local Hazard Mitigation Plan* is in draft form, and is currently undergoing final review. The updated Plan provides the framework for reducing the risk of harm from natural hazards and enhancing the City’s resilience in the face of such events. FEMA requires that all communities have a locally-adopted hazard mitigation plan in place in order to be eligible for certain FEMA hazard mitigation funds. The Plan encompasses a comprehensive assessment of the community’s vulnerability to natural hazards including drought, earthquake, extreme heat, flood, high wind/tornado, severe thunderstorm, wildfire, and winter storms. The Plan includes a list of strategies to reduce the risk of harm from these hazards. The vulnerability of Stigler Lake Dam is so critical that the Plan includes an entire appendix devoted to dam. The Plan describes two alternatives for Stigler Lake Dam: 1) dam rehabilitation, or 2) dam de-commissioning. The Plan estimates that the costs for dam de-commissioning are \$13 million, which is higher than the proposed costs in this proposal for dam rehabilitation. The Plan concludes that the most cost-effective option for maximizing risk reduction and to secure the community’s water supply is rehabilitation.

Significant Public Engagement was the Foundation of the Plan. The City established a stakeholder working group to guide the update of the *Local Hazard Mitigation Plan* (see inset for working group members). The working group included a broad array of stakeholders from a variety of sectors, i.e., municipal, county, state, tribal, health, private sector, education, community-based organizations, and more. Two half-day stakeholder workshops were held in 2022 and 2023. The workshops included a presentation of the Plan and its update requirements, a review of

<p style="text-align: center;">STAKEHOLDER WORKING GROUP MEMBERS</p> <ul style="list-style-type: none">• City of Stigler (all depts)• Haskell County• Choctaw Nation of Oklahoma• Stigler Public School District• Kiamichi Technology Center• Stigler Chamber of Commerce• Small Business Development Council• KI BOIS Community Action Foundation (CBO)• Stigler First National Bank• Stigler Wal-Mart• Cookson Hills Rural Electric Cooperative• Haskell County Hospital• Oklahoma Water Resource Board• Oklahoma Department of Emergency Management and Homeland Security• U.S. Army Corps of Engineers (Tulsa District)
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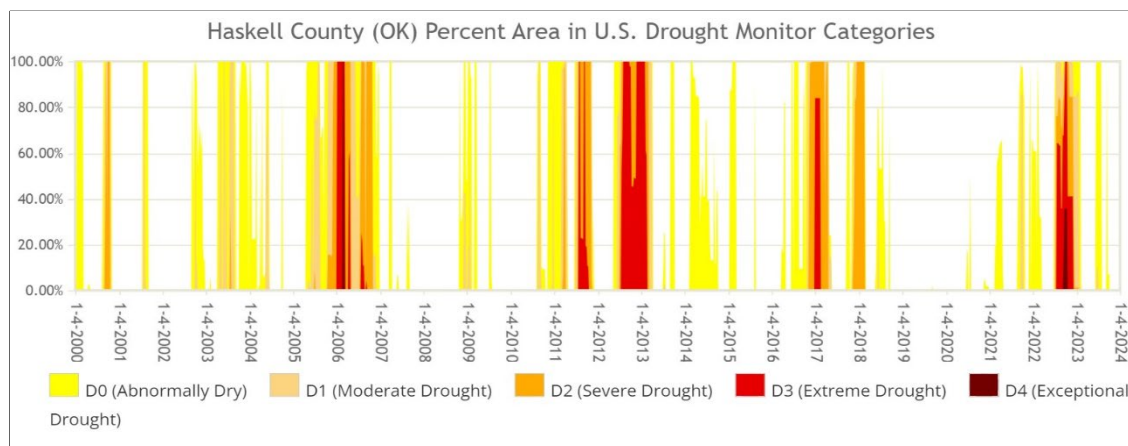
existing and new information and reports, and small groups were formed to discuss the hazards and recommended strategies. The 2023 workgroup meeting included a focus on Stigler Lake Dam, and included representatives from the OWRB, Oklahoma Department of Emergency Management and Homeland Security, and the U.S. Army Corps of Engineers (Tulsa District).

In addition to the work of the stakeholder working group, additional public outreach included a Public Survey using Social Pinpoint (an online public engagement platform). The survey was promoted in the local newspaper, to parents at Stigler Public School District, and via all local businesses. Hard copies were made available at City Hall for those without internet access, and City staff provided assistance in completing the survey. The Social Pinpoint Survey offered a feature to automatically translate the text into Spanish using Google Translate.

Evaluation Criterion C — Severity of Actual or Potential Drought or Water Scarcity Impact to be Addressed by the Project (15 points)

Drought Conditions in the Project Area. The Southern Plains region—encompassing Oklahoma, Texas, southern Kansas, and western New Mexico—is characterized by climate extremes. The region is one of the world’s leading agricultural producers; even a very short dry period during a sensitive time in a crop cycle can have very large impacts on the global economy. Stigler is not currently in a drought, but is recovering from the most recent drought period that spanned 2022 to early 2023. In 2022, the USDA designated Haskell and eight other Oklahoma Counties as primary natural disaster areas⁵ because these counties suffered drought intensity ranging from severe to exceptional for eight or more consecutive weeks. The designation allowed the USDA to extend emergency credit to the agricultural sector in these counties. Data from U.S. Drought Monitor (see Fig. 10) shows that the area experienced five

Fig. 10: Percent Area in Drought Conditions, Haskell County, Oklahoma, 2000 to



⁵ https://www.fsa.usda.gov/news-room/emergency-designations/2022/ed_2022_0830_rel_0119

distinct periods of drought between 2000 and 2023 that were classified as severe to exceptional. The most severe drought in terms of severity and longevity occurred during 2010-2015. That drought had far-reaching impacts across economic sectors in the State. Failure of winter wheat and summer crops during 2011 resulted in shortages of food for cattle, which forced farmers to purchase large amounts of hay or sell their herds. The National Integrated Drought Information System shows a pattern of extreme drought and wet periods in the area spanning back to 1895. Given the history of events, it is likely Stigler will continue to experience drought conditions based on the frequency of past droughts. The *Local Hazard Mitigation Plan's* analysis found that a drought event with a severity level of moderate to severe on the Palmer Drought Severity Index (PDSI) has a likelihood of occurring within the next 10 years. The Plan noted that government agencies, such as NOAA, indicate that future drought events in Oklahoma could be more severe than previous ones.

Drought Impacts if the Project Is Not Funded. The City and County are more vulnerable to drought because of the vulnerability of the water supply. Stigler Lake is the sole water supply. Another drought period that occurred concurrently with a dam breach would compound the impacts of each of these disasters. The social, public health, and economic impacts described earlier would be worsened. Another significant impact of these concurrent disasters would be a significant increase in the cost of water. The loss of the water supply during a drought would compound the problem of hauling water to Stigler. Water scarcity would make the cost of water hauling higher, and it is possible that the City would have to travel farther to get water because of increased demand and competition from other drought-impacted communities (note: Lake John Wells, the freshwater source lake, is raw untreated water and cannot be considered a backup supply). An increase in the cost of water would be problematic for residents in this disadvantaged community, many of whom struggle just to make ends meet.

Evaluation Criterion D – Presidential and DOI Priorities (15 points)

Disadvantaged or Underserved Communities. As described earlier in Evaluation Criteria A (Project Benefits), the entire project area is rural and located within the boundary of the Choctaw Nation of Oklahoma. The Climate and Economic Justice Screening Tool, see Fig. 8 in Evaluation Criteria A, shows that the entirety of the City, its Census Tract, and the surrounding Census Tracts are classified as disadvantaged. The median household income and poverty rates for Stigler and Haskell County are significantly worse than the State and the U.S. The loss of the water supply due to the failure of the dam would be devastating for a community that is ill-equipped to handle such a disaster. The impact of natural disasters is greatest on disadvantaged populations simply because of those populations' inability to manage the impact on their daily lives. The CEJST data above show that climate change-related loss rates for life and property in this Census Tract are estimated among the highest in the nation (90th percentile or above). In the event of a dam failure, a family may not be able to afford to go to a hotel if their house is flooded or travel to a distant town to buy drinking water. The lack of disposable income is a major constraint in the ability to withstand the immediate impacts of a natural disaster. According to the National Hazards Center, people on the margins suffer first and

worst, and factors such as race, gender, age, disability, and income determine who is hit hardest and who recovers fastest.

Tribal Benefits. The entirety of Haskell County (including the City of Stigler and the Stigler Lake Dam) is located in the territory of the Choctaw Nation of Oklahoma. Tribal members are direct project beneficiaries, and thus the project honors the Federal government’s commitments to Tribal Nations. The U.S. Census Bureau notes that the Native American population in Stigler is 17%, but City officials believe the percentage is closer to 20% or higher (with the discrepancy likely due to Census undercounting and non-responses). The Choctaw Nation has a significant presence in the City with multiple facilities located in Stigler as described earlier. These facilities, their workers, and the tribal members they serve all depend on the reliability of the water supply.

Evaluation Criterion E —Readiness to Proceed and Project Implementation (10 points)

Implementation Plan

Design, permitting, and development of bid documents will be completed prior to the proposed Reclamation-funded construction project as part of the design project funded by the Choctaw Nation of Oklahoma (details are provided below). The design project began on March 30, 2023, and will be complete by September 30, 2024 (approximately 18 months). The City conferred with Reclamation officials from the Oklahoma-Texas Area Office during September and October 2023 to discuss design, anticipated permitting and approvals, and costs for final NEPA documentation. The proposed project description and budget reflects their input and recommendations. The City will begin procurement for the two construction contractors (one for pipeline construction and one for dam rehabilitation) immediately after grant award, and the project will be shovel-ready by January 2025. Stigler Lake will need to be drained in order to complete the dam rehabilitation work, and a new pipeline will need to be constructed from Lake John Wells to Stigler Lake Water Treatment Plant (WTP) to ensure a seamless water supply during dam rehabilitation. Therefore, the new pipeline will be constructed first, followed by the dam rehabilitation work. The project will include the following tasks.

Task 1. PROJECT AND GRANT MANAGEMENT. The project will begin with execution of the grant agreement with Reclamation, followed immediately by submitting all final NEPA documentation to Reclamation in order to acquire approval and formal Notice to Proceed. Project management will include oversight and performance monitoring meetings with the construction contractors, day-to-day monitoring of the project budget and schedule, and ongoing collection of performance data. Grant management will include working with Reclamation to finalize the grant agreement, managing all grant compliance activities in a timely manner, and completing progress and financial reports and reimbursement requests. Task 1 also includes procurement for the two construction contractors.

Task 2. PIPELINE CONSTRUCTION. The first technical task will be construction of the buried pipeline from Lake John Wells (freshwater source lake) to the Stigler Lake (supply lake) WTP to ensure seamless water supplies during the dewatering of Stigler Lake to work on the dam. The pipeline Contractor’s tasks include:

2.1 Contractor Mobilization/Set-up. The Contractor will obtain documents needed to begin work (i.e., insurance, bonding, etc.) and move required equipment to the job location.

2.2 SWPPP and Erosion Control. The Contractor will develop and implement a Stormwater Pollution Prevention Plan to ensure prevention of stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act. Specific activities will be identified by the selected Contractor.

2.3 Surveying and Traffic Control. The Contractor will stake right of ways and confirm pipeline locations and alignment based upon the design plans; will provide traffic control, as necessary, during construction.

2.4 Clearing, Grubbing, and Miscellaneous Removals. The Contractor will remove trees, vegetation, or any other material that would impact the ability to construct the pipeline.

2.5 Construct 14" HDPE Raw Watermain Pipeline (buried). The Contractor will purchase piping and backfill materials; will conduct trenching and install the pipeline (approximately 8,900 linear feet from Lake John Wells to the Stigler Lake WTP; alignment to come with final design); and install air release valves on the new pipeline to prevent air locking the line.

2.5.1 Connect New Pipeline and Install New Pumps at Lake John Wells. The Contractor will cut the existing pipeline from the floating intake at Stigler Lake and connect the new raw watermain pipeline; install a new floating intake at Lake John Wells; install new pumps capable of pumping water from Lake John Wells to the Stigler WTP; and install a backup generator with automatic transfer switch at the floating intake at Lake John Wells (to support water supply during dam rehabilitation).

2.5.2 Re-Connection of the Original Gravity-Draining Conveyance. After dam rehabilitation is complete, the pipeline Contractor will install all valves and fittings required to return to service the original gravity-draining conveyance between Lake John Wells and Stigler Lake WTP. After the project is complete, the new permanent pipeline will serve as the primary water conveyance system from Lake John Wells to Stigler Lake; the gravity-draining conveyance will serve as an important backup system.

2.6 Modification to Existing SCADA System. The Contractor will modify the WTP's SCADA system to work with the new floating intake structure located at Lake John Wells.

2.7 Surface Repair. The Contractor will repair the surface of any road crossings that were disturbed during pipeline construction.

2.8 Testing, Training, and Disinfection. The Contractor will test the new raw watermain for leaks to ensure optimal operations, disinfect the line, and provide any needed training guidance to the Stigler Water Department on the new equipment and SCADA modifications.

Task 3. DAM REHABILITATION. The dam rehabilitation Contractor's tasks include:

3.1 Contractor Mobilization/Set-up. The Contractor will obtain documents needed to begin work (i.e., insurance, bonding, etc.) and move required equipment to the job location.

3.2 Lake Draining. The Contractor will drain Stigler Lake by first discharging the water through the WTP. Once the lake has been lowered to the capability of the intake, the Contractor will install temporary pumps and hoses to drain the lake to bottom. Water will be discharged through the existing spillway and down the outlet channel which goes into an unnamed creek. The City will seek a permit to discharge water to the creek from the Oklahoma Department of Environmental Quality under the Oklahoma Pollutant Discharge Elimination

System (OKPDES). The construction contractor will also develop and implement a Stormwater Pollution Prevention Plan to ensure prevention of stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act. Fish will be relocated during the draining process in coordination with Oklahoma Department of Wildlife Conservation.

3.3 Clearing and Grubbing. The Contractor will clear the dam site of vegetation to facilitate earthwork.

3.4 Demolition. The existing intake and associated utilities will be dismantled and stored during construction. An old, abandoned concrete intake will be demolished. Upstream concrete riprap will be removed and disposed of or processed and used for new riprap in the rehabilitation (contractor's option). The existing concrete in the spillway will be demolished.

3.5 Earthwork. The downstream slope will be flattened by adding imported fill compacted to project specifications. The Contractor will install the toe drain system, grade and install topsoil on the downstream slope, seed the slope with new grass, and install new concrete or rock riprap on the upstream slope. Earthfill will be added to low spots in the crest to achieve a uniform top-of-dam elevation that will meet the storage height requirements for OWRB dam safety criteria.

3.6 Cutoff Wall. The Contractor will install a soil-cement-bentonite cutoff wall along the dam centerline to prevent seepage from coming through the embankment. The cutoff wall will be 3 feet wide and about 1,400 feet long and will extend to the top of rock, which varies from 20 to 40 feet deep.

3.7 New Concrete Spillway Paving. The Contractor will install the new concrete spillway paving. A total area of 7,700 square feet of concrete will be paved with a 1-foot thick reinforced concrete slab.

3.8 Site Restoration and Demobilization. The Contractor will do a final grade at the top of the dam after cutoff wall installation, add aggregate to top of dam to create an all-weather driving surface, re-seed all disturbed areas, and demobilize from the job location.

Task 4. INFRASTRUCTURE TESTING AND DEPLOYMENT. After construction is complete, the new dam and pipeline will be tested by the City's Water Department officials, and inspected by the OWRB. After passing all inspections, the new water supply infrastructure will be put into full-time operations. The project's milestones and schedule are provided in Table 3.

Permits and Approvals

All approvals and permitting will be complete by September 2024.

National Environmental Policy Act (NEPA) Review.

Dam Rehabilitation. The design consultant anticipates that the dam rehabilitation will be categorically excluded from NEPA requirements under Part 516, Chapter 14 (Managing the NEPA Process), 14.5 Categorical Exclusions, D. Operations and Maintenance Activities, (1)... "replacement of existing facilities which may involve a minor change in size, location, and/or operation."⁶

⁶ <https://www.doi.gov/sites/doi.gov/files/doi-and-bureau-categorical-exclusions-dec2020.pdf>

Table 3: Project Milestones and Schedule

No.	Milestones/Tasks/Activities	Planned Start Date	Planned Completion Date
Task 1. Project and Grant Management			
1.1	Grant Agreement Execution	01/31/24	09/30/24
1.2	Final NEPA Approval/Notice to Proceed	01/31/24	09/30/24
1.3	Submit Progress/Financial Reports (2x/year)	03/31/25	09/30/27
1.4	Submit Final Report and Payment Request	07/01/27	09/30/27
1.5	Advertising and Bidding	09/30/24	12/30/24
Task 2. Pipeline Construction			
2.5	Construct 14" HDPE Raw Watermain Pipeline	01/30/25	01/30/26
Task 3. Dam Rehabilitation			
3.2	Lake Draining	02/01/26	08/01/26
3.4- 3.5	Demolition, Earthwork	08/01/26	12/30/26
3.6	Cutoff Wall	01/01/27	05/30/27
3.7	Concrete Spillway Paving	05/30/27	06/30/27
3.8	Site Restoration/Seeding	06/30/27	07/30/27
Task 4. Infrastructure Testing and Deployment			
4.0	Infrastructure Testing and Deployment	07/30/27	08/30/27

Pipeline Construction. The construction of the pipeline from Lake John Wells to the Stigler Water Treatment Plant will occur in areas that have not been previously disturbed. The project will require an Environmental Assessment (EA) which will include the Section 106 National Historic Preservation Act Review. The design consultant initiated this work in June 2023, and it will be completed by October 2024. Their scope of work includes: Gather and Review Existing Information; Environmental Risk Database Review; Preliminary Jurisdictional Determination Report; Prepare Pre-Construction Notification; Cultural Resources Desktop Evaluation and Archeological Survey (Section 106 Review); Tribal Consultation; Coordination with Project Engineers on NEPA Findings; Agency Coordination; Public Outreach; and Develop the Draft and Final EA. The City will submit all final NEPA documentation to Reclamation for approval as soon as it is available, and will work with Reclamation officials to address outstanding issues and work towards approval and a formal Notice to Proceed with the construction activities.

U.S. Army Corps of Engineers (USACE). Since a portion of the work may be performed in areas that could be considered “waters of the U.S.” by the USACE, a brief review was conducted during the project design regarding potential permitting requirements under Section 404 of the Clean Water Act (CWA). Although a jurisdictional determination has not been completed as of the writing of this grant application, it is assumed that Stigler Lake, the spillway, and channel downstream of the spillway are waters of the U.S. It is anticipated that the project will fall under Nationwide Permit (NWP) 3. NWP 3 authorizes the “*repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure... provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification.*” To abide by the NWP 3 requirements, the design consultant will conduct a pedestrian survey within the proposed project area, assemble and review data such as aerial photographs, USGS topographic maps, National Wetlands Inventory maps, the USGS National Hydrography Dataset, and soils data within the proposed project area. The consultant will document existing environmental conditions and assess potential project impacts, and will identify the presence and locations of waters of the U.S. Following these investigation, the consultant will prepare a Preliminary Jurisdictional Determination (PJD) Evaluation Report in accordance with USACE guidance to document potential waters of the U.S., including wetlands. The PJD Report will include data forms and maps. The consultant will then prepare and submit a Pre-Construction Notification (PCN) to the USACE. The timeframe for the USACE to review and authorize projects that meet the terms and conditions of a NWP is 30 to 45 days if the PCN is administratively complete.

Oklahoma Water Resources Board (OWRB). A dam alteration permit will be required from the OWRB. Completed plans, specifications, and the design report are required to be submitted with permit forms. OWRB reviews and responds to permit packages within 60 days.

Oklahoma Department of Environmental Quality (ODEQ). During the dewatering of Stigler Lake, water will be discharged through the existing spillway and down the outlet channel which goes into an unnamed creek. The City will seek a permit to discharge water to the creek from the Oklahoma Department of Environmental Quality under the Oklahoma Pollutant Discharge Elimination System (OKPDES). The construction contractor will also develop and implement a Stormwater Pollution Prevention Plan to ensure prevention of stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act. The OKPDES permit timeframe is generally 60 to 120 days.

Oklahoma Department of Wildlife Conservation (ODWC). Fish will be relocated during the draining process in coordination with Oklahoma Department of Wildlife Conservation, and the lake will be restocked after completion of the project.

Design Work

The design work for the proposed project is underway and will be complete by September 2024. The scope of work includes the permitting and approvals noted above, as well as construction drawings for the pipeline construction and dam rehabilitation, and development of bid documents, as follows:

Construction Drawings. The work includes drawings in AutoCAD to depict the size, type, configuration, and requirements for the dam rehabilitation and the raw water pipeline project. The Consultant will coordinate drawings with the technical specifications so that items

of work and materials are covered in the specifications and compatible with notes on the drawings. The Consultant will develop two separate construction drawing packages, one each for the dam rehabilitation and the pipeline construction.

Front End and Technical Specifications. The work includes preparing front end documents (Division 00 and 01) and technical specifications which will be prepared in conjunction with the construction drawings being advanced to the 60%, 95%, 100% and “Issued for Bid” design level. Two separate packages will be completed: one each for the dam rehabilitation and the pipeline constructions.

Opinion of Probable Construction Cost and Construction Schedule. The cost estimate included in this grant application is based on a preliminary cost estimate provided by the design Consultant. Their design work will continue to be refined, and will include preparation of a bid schedule of construction items; calculation and estimation of quantities based on drawings and preparation of unit pricing; preparation of an opinion of probable construction cost according to AACE International cost estimating guidelines.

Land Purchases

The City owns Lake John Wells, Stigler Lake, the Water Treatment Plant, and the dam. The City has an easement to complete the pipeline, but elected to purchase one additional easement to avoid a resident’s pond. No other easements or land purchases will be required.

New Policies/Administrative Actions

No new policies or administrative actions are required for the proposed project.

Evaluation Criterion F—Nexus to Reclamation (10 points)

Nexus to Reclamation. The Project is not located on a federal Reclamation facility, nor does the City receive water through Reclamation. However, the entirety of Haskell County (including the City of Stigler and the Stigler Lake Dam) is located in the territory of the Choctaw Nation of Oklahoma. Native Americans represent 20% of the City’s population, and the Choctaw Nation has a significant presence in the City with multiple facilities located in Stigler as described earlier. Tribal members are direct project beneficiaries, and thus the project honors the Federal government’s commitments to Tribal Nations.

Evaluation Criterion G—Stakeholder Support for Proposed Project (5 points)

Stakeholder Support. The project and its alternatives were discussed in-depth at the stakeholder working group meetings held in 2022 and 2023 as part of the update of the City’s *Local Hazard Mitigation Plan*. The participating stakeholders represented the following sectors: municipal, county, state, tribal, health, private sector, K-12 and vocational education, community-based organizations, and more (see Evaluation Criteria B for the list of stakeholders). Letters of support are included from:

- Choctaw Nation of Oklahoma (Chief Gary Batton)
- Haskell County Commissioner (Larry Watson)
- James Lankford, U.S. Senator
- Markwayne Mullin, U.S. Senator

ENVIRONMENTAL AND CULTURAL RESOURCES CONSIDERATIONS

Impacts on the Surrounding Environment.

Dam Rehabilitation. The dam rehabilitation will occur at the site of the existing dam, and all work will occur on previously disturbed ground. The design consultant anticipates that the dam rehabilitation will be categorically excluded from NEPA requirements under Part 516, Chapter 14 (Managing the NEPA Process), 14.5 Categorical Exclusions, D. Operations and Maintenance Activities, (1)...”replacement of existing facilities which may involve a minor change in size, location, and/or operation.”

A Nationwide Permit will be acquired under Section 404 of the Clean Water Act (CWA) as it is assumed that Stigler Lake, the spillway, and channel downstream of the spillway are considered “waters of the U.S.”.

Stigler Lake will need to be drained to allow work on the dam. The City will seek a permit to discharge water to the nearby unnamed creek from the Oklahoma Department of Environmental Quality under the Oklahoma Pollutant Discharge Elimination System (OKPDES). The construction contractor will also develop and implement a Stormwater Pollution Prevention Plan to ensure prevention of stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act.

Prior to draining the lake, fish will be relocated in coordination with Oklahoma Department of Wildlife Conservation (ODWC). The City will work with the ODWC to restock the lake after the project is complete.

Pipeline Construction. The construction of the pipeline from Lake John Wells to the Stigler Water Treatment Plant might occur in areas that have not been previously disturbed. If confirmed, the project will require an Environmental Assessment (EA) which will include the Section 106 National Historic Preservation Act Review.

The 8,900 linear foot buried pipeline will traverse land owned by the City of Stigler and private land. The City has easement to complete the pipeline, but decided to purchase one additional easement to avoid a resident’s pond. No other easements will be required. No land purchases will be required. Construction will involve trenching and installing a 14” HDPE raw waterline. Significant environmental Impacts are not expected, but construction could disturb the soil, require removal of trees and vegetation, and disrupt wildlife habitat. The pipeline will not cross any streams, rivers, or wetlands.

The scope of work includes development of a Stormwater Pollution Prevention Plan to ensure prevention of stormwater contamination, control sedimentation and erosion, and comply with the requirements of the Clean Water Act.

Threatened or Endangered Species. According to the U.S. Fish and Wildlife Service the threatened or endangered species that are known to inhabit the area include:

- Mammals:
 - Northern Long-eared Bat (Endangered)
 - Tricolored Bat (Proposed Endangered)
- Birds (no migratory birds are documented in the project area):
 - Pipling Plover (Threatened)
 - Red Knot (Threatened)
- Insects:
 - American Burying Beetle (Threatened)

Wildlife in the project area would be negatively impacted by a dam failure. Floodwaters could kill land-dwelling wildlife in the inundation zone, and destroy nests, food sources, and habitat for all area wildlife. Rehabilitating the dam to prevent a failure would protect these wildlife. The construction project is not expected to have a significant impact on wildlife, and the project will undertake mitigation efforts including those described above under *Impacts on the Surrounding Environment*.

Wetlands or Surface Waters Inside the Project Boundary. There are no wetlands in the project area; however, there are surface waters. Snake Creek and its unnamed tributary are located south and west of the City. A dam failure would inundate these surface waters, creating a number of risks including riverbank erosion and collapse, and pollutant loading that can include sediment, trash, sewage overflow, animal waste, motor oil, fertilizers, paint, construction debris, and more. These issues could degrade water quality, smother aquatic organisms, and impact the waters' beneficial uses for riparian and other wildlife. The rehabilitation of the dam will protect these surface waters. The construction project is not expected to impact Snake Creek or its tributary.

The dewatering of Stigler Lake will drain the water through the Water Treatment Plant, over the spillway, to the outlet channel which goes into a nearby unnamed creek. An OKPDES permit will be acquired for this discharge.

Water Delivery System Construction Date.

- Stigler Lake Dam was constructed in 1939 (no modifications to-date).
- Stigler Water Treatment Plant (WTP) was constructed in 2019.
- Gravity-draining conveyance of raw water from Lake John Wells to Stigler Lake WTP was constructed in 2018.

Modifications of, or Effects to, an Irrigation System. The project does not include modifications to irrigation systems.

National Register of Historic Places. There are no known sites on the National Register of Historic Places in the project area. The dam is more than 80 years old but is not on the National Register.

Archeological sites. There are no known archaeological sites in the project area.

Effect on Low Income or Minority Populations. The proposed project will have a significant benefit to the low-income, tribal, and disadvantaged populations who live in Stigler and Haskell County. The U.S. Census Bureau indicates that 17% of Stigler residents are Native American, but City officials believe the percentage is closer to 20% or higher (with the discrepancy likely due to Census undercounting and non-responses). The area is considered rural and highly disadvantaged with median household income and poverty rates that are significantly worse than the State and Nation, see Table below.

Table: Disadvantaged Status: Stigler v. Haskell County, State, and U.S.

Measure of Disadvantage	Stigler	Haskell County	State of OK	U.S.
Median Household Income (MHI)	\$31,425	\$43,622	\$59,673	\$74,755
Poverty Rate	27.6%	21.6%	15.7%	12.6%

Source: U.S. Census Bureau, Geography Profiles (<https://data.census.gov/profile>)

The area's low-income, tribal, and disadvantaged communities would bear a significant burden in the event of a dam failure. In the short-term, they would struggle to manage the impact of such a disaster on their daily lives. If their house is inundated due to the dam failure, a family may not be able to afford to go to a hotel and there are few hotels located in the area anyway. If the water supply is lost, they may not be able to afford to travel to buy water in distant towns. The lack of disposable income is a major constraint in the ability to withstand the immediate impacts of a natural disaster. The long-term effects would likely be a significant increase in the cost of water and other public services, with monthly costs doubling or more, severely impacting the area's disadvantaged residents who can least afford such a cost burden.

Access to Indian Sacred Sites or Impact on Tribal Lands. The project site is not located on sacred sites. The City is located in the territory of the Choctaw Nation of Oklahoma, but the project will not limit access to tribal lands. The Choctaw Nation funded the design portion of the project. Their letter of support is attached to the application, which outlines the many ways that the proposed project will benefit the Choctaw Nation. The project will secure safe, reliable, and affordable water which will support the Choctaw Nation's multiple facilities in the City (e.g., the Choctaw Nation Health Clinic), the tribal residents who live in Stigler (the Native

2. BUDGET PROPOSAL

2A. Summary of Funding Sources

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

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
1. Stigler Municipal Improvement Authority (cash -- source: SMIA General Funds Account) 5% Match for Task D: Domestic Water Supply Projects	\$448,228
Non-Federal Subtotal	\$448,228
Requested Reclamation Funding	\$8,516,328
TOTAL PROJECT COST	\$8,964,556

2B. Proposed Project Budget

The City requests \$8,516,328 in Reclamation funding to construct the new pipeline and rehabilitate Stigler Lake Dam. The City is committed to providing the 5% match required for Task D Domestic Water Supply Projects. The source of the cash match is the Stigler Municipal Improvement Authority General Funds account; these funds are non-restricted and available immediately.

The project budget consists of costs for construction, grant management, and costs for Reclamation's review and approval of NEPA documents. All pre-construction activities (i.e., design, environmental, permitting, development of bid documents) are currently underway (funded by a grant from the Choctaw Nation of Oklahoma) and will be completed by October 31, 2024. The City will initiate procurement for the construction contractors immediately after grant award, and these contractors will be on-board by January 2025. The City will commit staff to the project (as detailed below) to support project and grant management. The salaries for these staff are already covered in the municipal budget, and thus these salaries are not included in the project budget. Lastly, Stigler is a small town with limited staffing resources. The City will hire a grant management consultant to ensure timely, high-quality reporting, grant compliance, etc. Project costs are detailed below.

**Stigler Municipal Improvement Authority
Stigler Lake Dam/Water Supply Project**

Table 2. Proposed Project Budget

Budget Category/Item Description	Computation			Cost Share (5%)	Grant (95%)	TOTAL COST
	\$/Unit	Unit	Quantity			
1 - 8. Not Applicable				0	0	0
9. Construction						
9.1 Pipeline Construction				\$159,879	\$3,037,693	\$3,197,572
1.1 Mobilization, Insurance, Bonding & General Conditions	\$225,460	LS	1			\$225,460
1.2 SWPPP & Erosion Control	\$28,760	LS	1			\$28,760
1.3 Survey, Testing, Traffic Control & Disinfection	\$24,510	LS	1			\$24,510
1.4 Clearing, Grubbing & Misc Removals	\$133,500	LS	1			\$133,500
1.5 14" HDPE Raw Watermain (8,900 LF)	\$160	LF	8,900			\$1,424,000
1.6 Connection to Existing Watermain at Lake John Wells & Pumps	\$85,760	LS	1			\$85,760
1.7 Connection to Stigler WTP including required Piping, Fittings & Valves	\$78,690	LS	1			\$78,690
1.8 Modification to Existing SCADA System	\$15,000	LS	1			\$15,000
1.9 Air/Vac Valves	\$41,560	EA	1			\$41,560
1.10 Surface Repair	\$450	LF	70			\$31,500
1.11 Backup Power w/ Automatic Transfer Switch	\$225,800	LS	1			\$225,800
1.12 Testing & Disinfection	\$8,500	LS	1			\$8,500
1.13 Contingency on Construction Costs (30%)						\$696,912
1.14 Construction Phase Services						\$177,620
9.2 Dam Rehabilitation				\$283,349	\$5,383,635	\$5,666,984
2.1 Mobilization/Demobilization (7%)	\$232,000	LS	1			\$232,000
2.2 Erosion and Sedimentation Controls (2%)	\$66,300	LS	1			\$66,300
2.3 Care of Water During Construction	\$40,800	MO	6			\$244,800
2.4 Clearing and Grubbing	\$12,300	AC	5.5			\$67,650
2.5 Demolition - Concrete Spillway, Riprap, Former Intake, Misc. Items	\$100,000	LS	1			\$100,000
2.6 Excavation - General	\$13	CY	1,000			\$13,000
2.7 Imported Fill	\$30	CY	16983			\$509,490
2.8 Topsoil and Seeding	\$9,300	AC	5.5			\$51,150
2.9 Fine Filter C33 Sand (washed/screened)	\$130	CY	346			\$44,980
2.10 Coarse Filter No. 89	\$130	CY	82			\$10,660
2.11 Underdrain Pipe and Outlet System	\$65	LF	1137			\$73,905
2.12 Soil Cement Bentonite Cutoff Wall	\$270	CY	5000			\$1,350,000
2.13 CIP Concrete - Spillway	\$695	CY	292			\$202,940
2.14 Upstream Rock Riprap w/ Geotextile	\$400	CY	1491			\$596,400
2.15 Removal and Re-Installation of Floating Water Intake	\$50,000	LS	1			\$50,000
2.16 Contingency on Construction Costs (30%)						\$1,083,983
2.17 Cost Escalation for 2026 (10%)						\$469,726
2.18 Construction Phase Services	\$500,000	LS	1			\$500,000
Subtotal Construction				\$443,228	\$8,421,328	\$8,864,556
10. Equipment - Not Applicable				0	0	0
11. Miscellaneous						
1. Grant Management Consultant	\$100	hr	900	\$4,500	\$85,500	\$90,000
2. NEPA Costs for Bureau of Reclamation (confirmed with OK/TX Area Office)	\$10,000	LS	1	\$500	\$9,500	\$10,000
12. SUBTOTAL				\$448,228	\$8,516,328	\$8,964,556
13. Contingencies - Included above in Construction cost calculations				0	0	0
TOTAL PROJECT COSTS				\$448,228	\$8,516,328	\$8,964,556
Percentage Contribution by Funding Source				5.0%	95.0%	100%

2C. Budget Narrative

1. Administrative and Legal Expenses: Not applicable.

2. Land, Structures, ROWs, Appraisals, etc.: Not applicable.

3. Relocation Expenses and Payments: Not applicable.

4. Architectural and Engineering Fees: Not applicable.

5. Other Architectural and Engineering Fees: Not applicable.

6. Project Inspection Fees: Not applicable.

7. Site Work: Site work cost is included in the Construction cost calculations below, but is estimated at \$133,500 for pipeline construction and \$67,650 for dam rehabilitation, for a total of \$201,150.

8. Demolition and Removal: Demolition and removal costs are included in the Construction cost calculations below, but are estimated at \$100,000 for demolition of the concrete spillway, riprap, etc.

9. Construction:

Total construction costs are estimated at \$8,864,556

- Pipeline Construction: \$3,197,572
- Dam Rehabilitation: \$5,666,984

The cost estimate was developed by the City's design consultant, Freese and Nichols, whose work is already underway. The estimate is preliminary, and will be refined throughout the design process. The City will competitively procure the services of two construction contractors to complete the proposed project: one for the pipeline construction and one for the dam rehabilitation. The City anticipates that this approach will be the most cost-effective way to proceed. Since the pipeline construction and dam rehabilitation work are so different and specialized, the City suspects that a single master contractor would need to subcontract for one component or the other, which could increase costs. The City will utilize their established procurement procedures, and they will ensure that the procedures align with federal requirements.

Contingencies: Contingency costs were calculated separately for the pipeline construction and dam rehabilitation and are estimated at 30% of construction costs on each.

An additional 10% cost escalation is included for dam rehabilitation, as this work will not commence until the pipeline construction is completed, estimated at 2026.

Construction Phase Services: These costs are estimated separately for the pipeline construction and dam rehabilitation and are detailed below:

Pipeline Construction:	\$177,620
Construction Management	\$65,500
AsBuilt Drawings	\$12,300
Resident Representative	\$63,840
Survey	\$33,980
ODEQ/OKPDES Permit	\$2,000
Dam Rehabilitation:	
Construction Management	\$138,000
AsBuilt Drawings	\$14,000
Resident Representative	\$312,000
Quality Assurance Testing	\$36,000

10. Equipment: Not applicable.

11. Miscellaneous: \$100,000

Grant Management Consultant: \$100/hour x 300 hours/year x 3 years = \$90,000

Stigler is a small town with limited staff. An expert grant management consultant will be hired to ensure that the City meets reporting and compliance requirements in a timely and high-quality manner. Comprehensive grant management services will include coordination of all required reporting, financial requests and reconciliation, compliance tracking, deadline tracking, records retention, and audit preparation.

NEPA Review/Approval Costs for Bureau of Reclamation: \$10,000

On October 23, 2023, the City conferred with staff in Reclamation's Oklahoma/Texas Area Office (Environmental Specialist, Trent Parish) on costs that should be included in the project budget. The City is including Reclamation's estimate which will cover costs for review and approval of NEPA documents.

Participating City Staff. The City will commit their expert staff to manage the proposed project. Their salaries are already included in the municipal budget, and thus their salaries and wages are not included in the project budget. Committed staff include:

Project Manager – Bobby Mouser (City Manager): The Project Manager will oversee the day-to-day operations of the project, oversee the construction contractors, conduct monthly performance monitoring meetings with the construction contractors, serve as the point of contact for Reclamation, and manage the project's budget and schedule.

Stigler Municipal Improvement Authority
Stigler Lake Dam/Water Supply Project

Mr. Mouser has 43 years of professional experience including eight years in municipal government at the City of Stigler where he serves as City Manager, Airport Manager, and Director of Economic Development. His previous experience includes serving as Vice President for a regional electric utility that served four midwestern states. His professional experience has provided expertise on pricing and delivery of affordable utility services.

Grant Administrator – Amber Hamilton (City Clerk): The Grant Administrator will serve as the point of contact for Reclamation for reporting and financial matters, and will oversee the work of the expert grant management consultant who will be hired to manage the bulk of grant management requirements.

Ms. Hamilton has more than 20 years of management experience. She has been with the City of Stigler since March 2022, and currently serves as the City Clerk. Previously, she worked in the private sector doing payroll, Human Resources, logistics, and warehouse/facility management.



Choctaw Nation of Oklahoma

PO Box 1210 • Durant, OK 74702-1210 • Phone: 580.924.8280

Gary Batton
Chief

Jack Austin, Jr.
Assistant Chief

October 10, 2023

Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington, DC 20240-0001

RE: Support for Stigler Lake Dam/Water Supply Project

Dear Commissioner Touton:

The Choctaw Nation of Oklahoma is pleased to share our support for the Stigler Municipal Improvement Authority's Stigler Lake Dam/Water Supply Project. The city and its water system are entirely encompassed within Choctaw tribal territory.

The reliability of Stigler's water supply directly impacts tribal members and critical tribal facilities. Approximately 17% of Stigler's population is Native American. Stigler is home to multiple tribal facilities that serve Choctaw tribal members who reside in the city, surrounding areas, and throughout Haskell County. These tribal facilities, their services, and the jobs they provide depend on safe, reliable, and affordable drinking water. The facilities include:

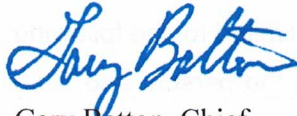
- The new \$3.4M health clinic expansion which consolidated multiple health departments into a single location including family practice, laboratory, pharmacy, optometry, dental services, radiology, behavioral health, and community nursing;
- The community center which provides food services for older adults and Head Start for our children;
- The Housing Authority has built 50 new housing units in Stigler over the last three years (including affordable rental units, lease-to-purchase homes, and elder housing units) with more to come in the future;
- The Choctaw Travel Plaza Casino Too Stigler; and
- A maintenance facility.

The Choctaw Nation has made significant investments in the city as a demonstration of our commitment to the community. We provided a grant for the initial engineering study for the Stigler Lake Dam/Water Supply Project (the proposed project), contributed \$1.7M toward the city's \$4.5M sports complex which has resulted in the expansion of the city's sales tax base, provided

\$400,000 to rehabilitate a water storage tank and replace all of the city's 1,300 standard water meters with smart meters, and much more. The proposed project is the best approach to secure safe, reliable, and affordable drinking water in Stigler, thereby protecting the Choctaw Nation's significant investments in the community, and ensuring uninterrupted drinking water supplies for all residents, businesses, and industries in the city and surrounding areas.

The Choctaw Nation of Oklahoma strongly supports this critically important project, and we hope you will give the project your favorable consideration.

Sincerely,



Gary Batton, Chief
Choctaw Nation of Oklahoma

**HASKELL COUNTY DISTRICT #2
LARRY WATSON, COMMISSIONER
405 S. BROADWAY STIGLER, OK 74462
OFFICE (918) 967-4291 CELL (918) 448-0276**

October 10, 2023

Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240-0001

Re: Letter of Support for the Stigler Lake Dam/Water Supply Project

Dear Commissioner Touton:

I am writing to express my strong support for the reconstruction of the Stigler Lake Dam, and I encourage the Bureau of Reclamation to please consider how the failure of the dam would affect not just the City of Stigler, but the entirety of Haskell County.

The Haskell County Water Company (a nonprofit cooperative) provides drinking water to residents and businesses throughout the County. The County's drinking water infrastructure is aging, and we are heavily reliant on the Stigler Municipal Water District for backup supplies in low-supply situations, as well as their dedicated pumps to assist with our water pressure issues. The importance of our partnership was evident during the winter of 2023, when our water system was down for a month. During that time, Stigler provided the majority of our drinking water. Without their assistance, 11,000 people would have been without drinking water.

I cannot overstate how important Stigler Lake and the Dam are to the County. The availability of safe, reliable, and affordable drinking water is absolutely a limiting factor to County growth. Industrial, economic, agricultural, and residential growth are dependent on drinking water reliability, and Stigler's water supply infrastructure is key to securing that reliability. I hope you will consider funding this worthwhile and important project. Thank you for your consideration of this letter of support.

Sincerely,



Larry Watson
Haskell County District 2 Commissioner

JAMES LANKFORD
OKLAHOMA

316 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-5754

United States Senate

COMMITTEES:
FINANCE
ETHICS
INTELLIGENCE
HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS

October 24, 2023

M. Camille Calimlim Touton, Commissioner
Bureau of Reclamation
U.S. Department of Interior
1849 C Street, NW, MIB 7620
Washington, DC 20240

Dear Commissioner Touton:

I write in support of the Stigler Municipal Improvement Authority's application for funding through the WaterSMART Drought Response Program: Drought Resiliency Projects for FY24. The project will provide additional water supplies for domestic use and also improve the dam infrastructure at Stigler Lake, currently the city's only source of water.

The City of Stigler, Oklahoma is home to over 2,500 Oklahomans and services water to its citizens, surrounding communities, and rural water districts. Currently, the City solely relies upon Stigler Lake for its water supply which is supported by Stigler Lake Dam. In 2020, the Dam was inspected and determined to be in unsatisfactory condition due to excessive uncontrolled seepage and severe deterioration of the downstream slope which could lead to failure of the dam under normal operating conditions.

The Stigler Lake Dam and Water Supply project will provide infrastructure improvements to Stigler Lake Dam and the construction of a pipeline from a neighboring lake to increase the city's water supply. The project seeks to implement a vertical seepage cutoff wall, flattening of the slope to improve stability, slightly raising the dam to meet OWRB hydraulic standards, putting in a toe drain to collect seepage, and reconstructing a concrete overflow spillway. Additionally, the construction of a pipeline from Lake John Wells to the Stigler Water Treatment plant will increase the water supply and allow for water service in Haskell county for years to come.

Thank you in advance for your consideration of the Stigler Municipal Improvement Authority's application for funding through the WaterSMART Drought Response Program: Drought Resiliency Projects for FY24. Please contact my office should you need any further assistance as you consider this important proposal.

In God We Trust,



James Lankford
United States Senator for Oklahoma

United States Senate

WASHINGTON, DC 20510

October 13, 2023

Camille Calimlim Touton
Commissioner
Bureau of Reclamation
1849 C Street NW
Washington DC 20240

Dear Commissioner Touton,

I am writing to support Stigler, Oklahoma's application for the U.S. Bureau of Reclamation's WaterSMART FY24 Drought Resiliency Grant Program to reconstruct the Stigler Lake Dam. If awarded, this grant will assist a critical endeavor due to the dam's deteriorating condition and posing high risk to surrounding life.

The vulnerability of the water supply is exacerbated by the vulnerability of the residents who depend on it: 27.6% of residents live below the poverty line. Given the ongoing drought conditions in Oklahoma, safeguarding a life-sustaining water source is paramount. Our small underserved communities are aware of the struggles they will face if the aging and failing infrastructure is not addressed.

This opportunity will support this important project which will ensure safe and reliable drinking water for Stigler and Haskell County. Stigler Lake serves as the sole water source for Stigler's 2,700 residents and provides an additional backup source for 9,000 county residents.

If you have any questions, please feel free to reach out to our Tulsa office at 918-921-8520. Thank you for your thoughtful consideration.

God Bless,



Markwayne Mullin
United States Senate