

Lake Meadow Dam Rehabilitation Project Funding Group II



Application for:

WaterSMART: Water and Energy Efficiency Grants for Fiscal Year (FY) 2025

Funding Opportunity No. R24AS00052

November 13, 2024

Submitted By:

Meadow Lake Water Control & Improvement District No. 1

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UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT (SAM)

Reclamation will not make a Federal award to an applicant until the applicant has complied with all applicable Unique Entity Identifier (UEI) and SAM requirements and, if applicant has not fully complied with the requirements by the time the Reclamation is ready to make an award, Reclamation may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant. Federal award recipients must also continue to maintain an active SAM.gov registration with current information through the life of their Federal award(s).

The applicant, Meadow Lake Water Control & Improvement District No. 1 (MLWCID), is registered with the System for Award Management (SAM). The Unique Entity Identifier is Q7CYZKTRZBW1 and CAGE Code is 9S7K6. MLWCID will continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

TECHNICAL PROPOSAL

EXECUTIVE SUMMARY

Date: November 13, 2024

Applicant Name: Meadow Lake Water Control & Improvement District No. 1

Applicant Type: Category A (Water District)

Location: Seguin, Guadalupe County, Texas

Project Name: Lake Meadow Dam Rehabilitation Project

Federal Funding Amount: \$2,000,000

Lake Meadow Dam is located in Guadalupe County approximately 3 miles south of Seguin, Texas (Latitude 29.528826, Longitude -97.93947). Lake Meadow Dam is listed in the National Inventory of Dams as NID ID: TX01599, with the primary purpose of hydroelectric, and was constructed in 1930 as part of a series of six dams intended to produce power from the Guadalupe River of Texas. In March of 2023, two of the three aging gates were permanently opened and the reservoir of Meadow Lake was drained due to the potential risk of sudden and catastrophic failure of the existing gates. With the dam no longer impounding water, hydroelectric production has ceased and the hydro facility was mothballed. The Lake Meadow Dam Rehabilitation Project would replace the floodgates, returning Meadow Lake and resuming the hydroelectric production. The project will rehabilitate Lake Meadow Dam to meet modern dam safety stability requirements, improve the dam spillway to address current identified hydraulic and structural deficiencies, provide for the effective operations and maintenance of the dam during normal pool conditions and flooding events, and bring the hydroelectric facility back online to produce clean energy for the surrounding community. This project is being performed with the support of the City of Seguin, who has pledged \$5M towards the project, and the Guadalupe-Blanco River Authority (GBRA).

Meadow Lake WCID is undertaking the Lake Meadow Dam Rehabilitation Project to not only bring the 2.48 MW hydro facility back online by replacing the failed existing gates with new modernized gates, but also to impound an additional 1,071 acre-ft of water by restoring the original pool elevation of the lake.

The proposed project construction is to be completed in 12 months with an anticipated start date of September 2025 and a completion date of September 2026.

This facility is not located on a Federal facility.

PROJECT LOCATION

Provide specific information on the geographic location of the proposed planning area (e.g., watershed, basin, county) or location of the project being designed, including a map showing the geographic location.

Lake Meadow Dam, also known as Nolte Dam or TP-5, is located in Guadalupe County, Texas, and approximately 3 miles south of Seguin, Texas. The physical address is 220 FM 466, Seguin, Texas 78155. The project latitude is 29.528826 and longitude is -97.93947. See vicinity map in *Figure 1* below.



Figure 1: Project Vicinity Map

PROJECT DESCRIPTION

Provide a more comprehensive description of the technical aspects of your project, including the work to be accomplished and the approach to complete the work. This description should provide detailed information about the project including materials and equipment and the work to be conducted to complete the project. This section provides an opportunity for the applicant to provide a clear description of the technical nature of the project and to address any aspect of the project that reviewers may need additional information to understand.

Project features are summarized below and existing facility photos are shown in Attachment 1.

History:

Lake Meadow Dam is one of a series of six dams intended to produce power from the Guadalupe River. The dams were designed by Fargo Engineering around 1927. Final construction of the six dams was completed around 1933 by the Texas Power Corporation who then assumed ownership of the dams. The dams are collectively known as the Guadalupe Valley Hydroelectric System (GVHS). The Guadalupe-Blanco River Authority (GBRA) was formed in 1933 by the Texas legislature with a primary responsibility to manage the water supply and water conservation in the Guadalupe River Basin. Shortly after formation, GBRA assumed ownership and operations responsibility for the GVHS and successfully operated the dams throughout nine decades. GBRA's Guadalupe Valley Hydroelectric Division operated the six dams and hydroelectric plants located in Guadalupe and Gonzales counties that generated electricity for the Guadalupe Valley Electric Cooperative (GVEC).

Existing Dam Facilities:

Lake Meadow Dam consists of a 2,000-foot long earth fill embankment and an 820-foot long emergency spillway located at the far left end of the left embankment. The dam utilizes three Huber-Lutz (bear trap) style gates for passing river flows. The bear trap gates are situated upon a concrete base structure with features that accommodate the structural steel gate structure within pockets when it is lowered to pass flood waters. Concrete piers separate the gates from one another, and the gates are bounded by concrete abutments on each end of the spillway. The side seals of the gates traverse along a vertical concrete face at each pier and abutment. The gates are a height of approximately 12 feet and span 85 feet per gate. The primary gate structure consists of a structural steel framework. The skin across the top of all framework consists of wooden planks with splined joints for water-tightness.

The existing spillway gates and operating appurtenances are structurally deficient, fail to meet state dam safety criteria, and require replacement to provide reliable

maintenance of the reservoir and safe operation of the dam. The proposed project provides for the replacement of the existing floodgates/spillway gates with modernized gates, improvement of dam and foundation stability, facilitation of dam maintenance and dewatering, and addressing of the hydrologic and hydraulic adequacy of the dam and spillway.

Existing Hydro Facility:

Two 1,240 KW generating units at the Lake Meadow Dam hydroelectric power plant provide a total capacity of 2,480 KW. Each of the two vertical generators is a 1,240 KW, 3 phase, 60 cycle, 2,400 volt, 150 rpm unit with a direct connected exciter. The generators and control equipment were furnished by the General Electric Company. Each of the two vertical turbines is a James Leffel and Company, 150 rpm, Francis type, with a capacity of 1,950 hp at 27.0-foot head. Each unit is controlled by a Woodward governor. At this plant, each turbine is installed in an open wheel pit equipped with trash racks and headgates.

Water releases from Meadow Lake were controlled by the operation of the turbines while generating power, and by spillway gates. Water discharged from upstream plants may be stored during periods when the power load is light and used during the time of peak power requirements. Maximum water discharge per unit at full load is 650 cfs. An intake structure on the left bank of the dam controls flow to the 1.5-mile long diversion canal to the powerhouse. Additional power head is gained by the use of this canal.

Dam Rehabilitation Scope of Work:

A preliminary engineering study was performed in 2023 with the following conclusions:

Replacement of Floodgates/Spill Gates: The original wooden bear trap spill gates will be replaced with a modern Obermeyer gate system. The replacement with new gates will eliminate the potential for catastrophic gate failure (as happened to two of the other dams in the system), and increase the resiliency of the facility against sudden discharge of water and draining of the lake. Currently, the gates are not operational and not able to safely pass flood waters. The potential for loss of life and property damage to the surrounding disadvantaged community continues to exist, and funding to replace the gates is necessary. The replacement with a modern gate system will also allow for more reliable operations, full automation and reduced maintenance. The Obermeyer gate system is made in America, meeting the Buy America Domestic Procurement Preference requirements.

Foundation Stability Improvements: During the preliminary engineering study, stability analysis was performed to assess the existing conditions of the spillway at Lake Meadow Dam as well as for the proposed gate modifications for compliance

with current dam safety criteria. The results show a foundation below modern safety factors for stability, specifically against sliding. The proposed concrete infill mass needed to install the new Obermeyer gates plus the addition of anchors will bring the foundation into compliance with today's safety standards for foundation stability. The project is currently undergoing final engineering which will confirm foundation stability and if remedial measures to satisfy stability standards are required

Maintenance and Dewatering Improvements: Because Meadow Lake Dam was built between 1928 and 1932, a method to maintain the gates does not exist. The project will install two new tower cranes, one on each side of the spillway, providing full coverage for lifting and an increased ability to replace the gates during construction and for all future maintenance. The combination of the tower cranes and new stop log system will constitute a reliable and safe dewatering system for all construction activities and future maintenance. With a properly engineered crane foundation and the most modern tower cranes available on the market, the reliability and safety for maintenance of the gates will substantially increase.

Hydrologic & Hydraulic Analysis Plan and Implementation: Currently, the risk of flooding to downstream structures and property due to an earthen embankment breach of Lake Meadow Dam is not well understood. Engineering analysis of the river hydraulics and embankment stability will be completed during Engineering Design, coordinated with the Texas Commission on Environmental Quality (TCEQ) Dam Safety Program, and addressed as part of the operations and maintenance plan for Lake Meadow Dam and Meadow Lake Reservoir.

Construction/Operations Partners: The Meadow Lake Water Control and Improvement District No. 1 (MLWCID) is supported by the following professional services:

- Hydroelectric Operations - Sorenson Engineering Inc.
- Engineering Consultants - GEI Consultants
- General Legal Counsel - McLean & Howard LLP
- Bond Counsel - Norton Rose Fulbright US LLP
- Bookkeeping Services - Municipal Accounts and Consulting L.P.
- Financial Advisor - SAMCO Capital Markets Inc.

The District intends to partner with Sorenson Engineering, an experienced hydroelectric operator, for operation and maintenance of Lake Meadow Dam and hydro facility. See sorensonengineeringinc.com for more information about Sorenson Engineering.

Sorenson Engineering will be paid for operating and maintaining the Lake Meadow Dam through an agreed split in gross hydroelectric revenues. The MLWCID will fully own Lake Meadow Dam and, as such, all risks associated with the dam will be the responsibility of the District. Sorenson has agreed to be a good steward of the Lake Meadow Dam and spill gates, and will keep the MLWCID informed of any known or anticipated maintenance or repair needs or concerns moving forward after completion of construction.

For the project's construction, the MLWCID plans to use a general contractor for the civil works and Obermeyer Hydro Inc. for the supply and installation of the new modernized spill gates. The District has worked closely with Obermeyer Hydro during the planning and preliminary engineering stages and has received proposals for the supply and installation of the new gates.

In summary, the rehabilitation of the dam directly affects the hydropower facility. The hydro facility became inoperable and was mothballed by GBRA in March 2023 when the existing gates were opened and the lake level lowered. Replacing the existing gates with new modernized gates will allow for the impoundment of water, once again restoring the hydroelectric production capability. Increased hydroelectric capacity is expected with modernized gates and controls that will maintain accurate pool elevations during elevated flows. The picture below shows the loss of water and reduced lake level due to opening of the gates. The water line shown on the docks pictured is where water levels would return after rehabilitation of the dam, something the local community looks forward to.



EVALUATION CRITERIA

E.1.1 Evaluation Criterion A - Quantifiable Water Savings

Up to 25 points may be awarded for this criterion. This criterion prioritizes projects that will conserve water and improve water use efficiency, supporting the goals of E.O. 14008. Points will be allocated based on the quantifiable water savings expected as a result of the project. Points will be allocated to give greater consideration to projects that are expected to result in more significant water savings. All applicants should be sure to:

1) Describe the amount of estimated water savings. For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project. Please include a specific quantifiable water savings estimate; do not include a range of potential water savings.

Since the spillway gates were lowered in March of 2023 due to safety concerns, the water level of the Meadow Lake reservoir has dropped by over 12 ft., causing a number of water irrigation issues. For many property owners adjacent to the river (~1,620 acres), irrigating by pumping out of the river is no longer feasible and they have had to switch to city water, putting added stress onto city water resources. A number of owners in the area close to the river have reported issues with their wells and their need to switch to city water for irrigation and livestock maintenance. With the rehabilitation of the spill gates at Lake Meadow Dam and the installation of measurement devices that will keep the water at a constant level, these irrigation issues will be erased, allowing city water resources to focus on non-lake properties. The estimated amount of water expected to be conserved as a direct result of this project is 1,071 acre-ft per year.

2) Describe current losses. Please explain where the water that will be conserved is currently going and how it is being used. Consider the following: Explain where current losses are going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground)? If known, please explain how current losses are being used. For example, are current losses returning to the system for use by others? Are current losses entering an impaired groundwater table becoming unsuitable for future use? Are there any known benefits associated with where the current losses are going? For example, is seepage water providing additional habitat for fish or animal species?

Opening the spillway gates lowered the Meadow Lake reservoir by approximately 12 feet to a water level that fluctuates based on how much water is released from Canyon Lake Dam upstream or if there is a rain event upstream. The estimated loss

from full reservoir to the current level is approximately 1,071 acre-ft per year with the water traveling downstream instead of being impounded.

3) Describe the support/documentation of estimated water savings. Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations.

At normal pool elevation, Meadow Lake impounds 1,550 acre-ft with a surface area of 153 acres. The opening of the gates in March of 2023 lowered the reservoir at the dam site by approximately 12 ft with a 2 ft lowering observed at the furthest upstream location at the headwaters of Meadow Lake. The gates account for the large majority of the dam's overall height which is why the impact of lowering the gates is so substantial. To account for the loss of water, two volumes need to be included in the calculation: 1) a loss in water depth gradient of 0 ft at the headwaters to 10 ft (12 ft - 2 ft) at the dam multiplied by the surface area and divided by two, and 2) an overall 2 ft loss in water depth over the entire surface area. These two volumes combined account for the total water loss.

Approximate loss of water:

- $(153 \text{ acres} \times 10 \text{ ft})/2 = 765 \text{ acre-ft}$
- $153 \text{ acres} \times 2 \text{ ft} = \underline{306 \text{ acre-ft}}$
- TOTAL Loss = 1,071 acre-ft

% Reduction compared to normal = $1,071 \text{ acre-ft} / 1,550 \text{ acre-ft} = 69\%$

The rehabilitation of Lake Meadow Dam would provide an estimated water savings of 1,071 acre-ft per year, an increase of 69% compared to existing conditions. A comprehensive hydrologic and hydraulic study is ongoing which will more accurately confirm the loss of water; however, the loss of water calculated above is supported by observations and known properties of the reservoir.

4) Please address the following questions according to the type of infrastructure improvement you are proposing for funding.

Irrigation Flow Measurement: Irrigation flow measurement improvements can provide water savings when improved measurement accuracy results in reduced spills and over-deliveries to irrigators. Applicants proposing municipal metering projects should address:

a. How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.

Not applicable.

b. Have current operational losses been determined? If water savings are based on a reduction of spills, please provide support for the amount of water currently being lost to spills.

Not applicable.

c. Are flows currently measured at proposed sites and if so, what is the accuracy of existing devices? How has the existing measurement accuracy been established?

Not applicable.

d. Provide detailed descriptions of all proposed flow measurement devices, including accuracy and the basis for the accuracy.

Not applicable.

e. Will annual farm delivery volumes be reduced by more efficient and timely deliveries? If so, how has this reduction been estimated?

Not applicable.

f. How will actual water savings be verified upon completion of the project?

Replacement of the floodgates will once again impound water creating a constant level lake for all practical purposes. The control systems offered by Obermeyer Hydro for the new modernized gates will ensure accurate monitoring of the normal pool elevation. The normal pool elevation can be continuously monitored and verified, subsequently confirming the annual water savings.

E.1.2 Evaluation Criterion B - Renewable Energy

Up to 20 points may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency and reduced greenhouse gas emissions.

E.1.2.1 Subcriterion B.1 - Implementing Renewable Energy Projects Related to Water Management and Delivery

Up to 20 points may be awarded for projects that are installing new renewable energy capacity.

***Describe the amount of energy capacity.** For projects that implement renewable energy systems, state the estimated amount of capacity (in kilowatts) of the system. Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.*

The existing capacity of the Lake Meadow Dam hydroelectric facility is currently 0 KW as the deteriorated floodgates were opened and the impounded reservoir was drained in March of 2023, and the hydro facility has been mothballed since then. The capacity before this dewatering was 2,480 KW. Each of the two GE vertical generators is a 1,240 KW, 3 phase, 60 cycle, 2,400 volt, 150 rpm unit with a direct connected exciter. Each of the two vertical turbines is a James Leffel and Company, 150 rpm, Francis type, with a capacity of 1,950 hp at 27.0-foot head. Maximum water discharge per unit at full load is 650 cfs. An intake structure on the left bank of the dam controls flow to the 1.5-mile long diversion canal to the powerhouse. Additional power head is gained by the use of this canal. The estimated turbine and runner efficiency is 85%. Transmission/transformers losses are assumed at 2.0%.

The capacity was calculated using the formula below:

$$\begin{aligned} \text{KW} &= [\text{unit weight of water (lb/ft}^3\text{)} * \text{flow (cfs)} * \text{net head (ft)} * \text{turbine and generator efficiency} * 0.746) / 550] * (1 - \text{transmission/transformer losses}) \\ \text{KW} &= (2 \text{ units} * 62.4 \text{ lb/ft}^3 * 650 \text{ cfs} * 27 \text{ ft} * 0.85 * 0.746) / 550 * (1 - 0.02) \\ &\sim 2,480 \text{ KW} \end{aligned}$$

Describe the amount of energy generated. For projects that implement renewable energy systems, state the estimate amount of energy that the system will generate (in kilowatt hours per year). Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate. Please explain how the power generated as a result of this project will be used, including any existing or planned agreements and infrastructure.

The proposed project will bring the existing facility back online. Historic power generation data is available from 1934-2016. Power generation was measured with a utility grade meter located at the project interconnection. The average annual generation during this time period was 7,692,594 KW-Hrs. See *Figure 2* below for detailed historic monthly generation values.

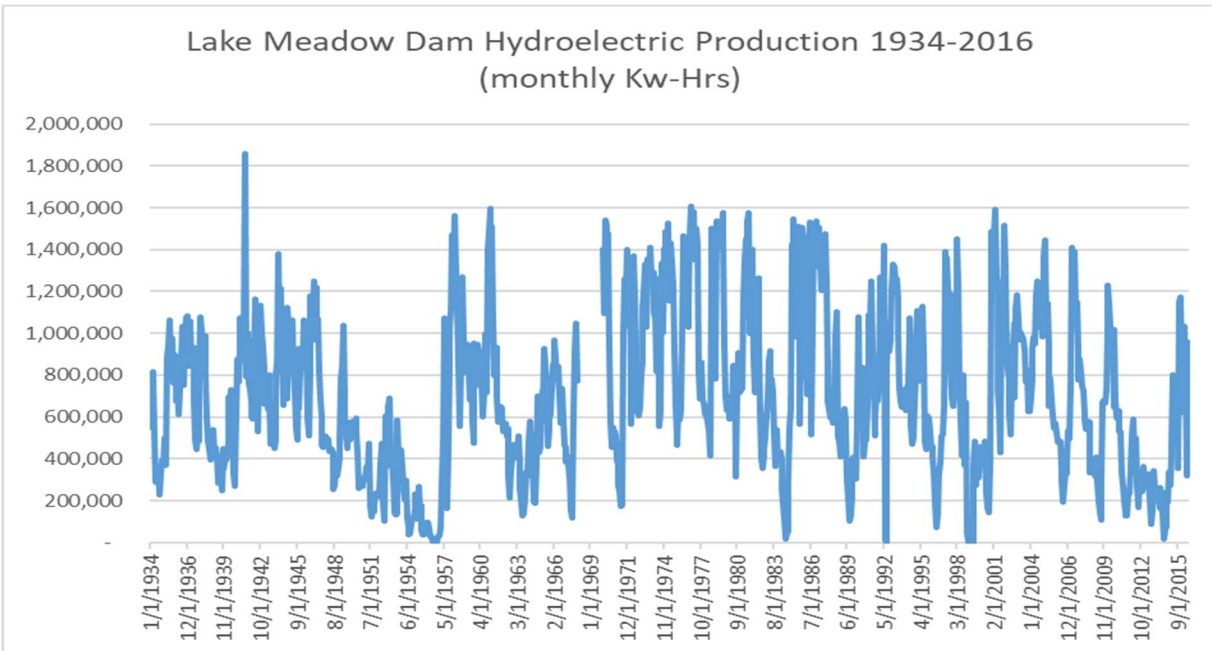


Figure 2: Lake Meadow Dam Hydroelectric Production 1934-2016

Water supply and electrical generation are substantially determined by weather conditions. The decreased generation between 1955-1956 and 1967-1968 were due to severe, state-wide drought. After 2016 there are no reliable hydroelectric production records as lake levels were lowered for ongoing maintenance of the existing gates. The lower lake levels caused a substantial decrease in hydroelectric production.

MLWCID with Sorenson Engineering, as a partner, expects to negotiate an agreement with Guadalupe Valley Electric Company (GVEC) for the power sales. GVEC has an extensive historic track record of buying power from the Guadalupe Valley Hydroelectric system and this is expected to continue into the future. Infrastructure already exists for this purpose. The power would be sold directly to GVEC where the power generation would service 40% Disadvantaged Communities. The increased power generation to the Texas grid would also help alleviate energy consumption issues during peak demand.

Describe the status of a mothballed hydro plant. For projects that are bringing mothballed hydropower capacity back online, please describe the following:

- *Clearly describe the work that will be accomplished through the WaterSMART Grant. Note: Normal OM&R activities are not eligible for funding. The work being proposed must be an investment.*

The work that will be accomplished through the WaterSMART Grant is outlined in the Technical Project Description. The proposed project is a rehabilitation investment to replace the existing dam spill gates with new modernized gates which will allow for the impoundment of water, once again restoring the hydroelectric production capability. The proposed work does not include any operation, maintenance or replacement activities from normal wear and tear on the facility.

- *Provide information about the capacity (in kilowatts) of the existing hydro system and the expected capacity once it is brought back on-line.*

The capacity of the existing hydro system is 2,480 KW (see details in previous section). The expected capacity will return to 2,480 KW once the project is brought back on-line. Increased hydroelectric capacity is expected with modernized gates and controls. New controls of modern design will increase the average annual power generation by at least 5%. Obermeyer gates have a track record of increasing hydroelectric production by maintaining accurate pool elevations during elevated flows and decreasing future operations and maintenance costs.

When river discharges exceed the hydraulic capacity of the turbines, the upstream headwater levels will begin to rise, and only a small amount of rise can occur before operators must commence gate operations. Discharges from Canyon Reservoir exceeding 1,500-cfs require gate operations at Lake Meadow Dam. *Figure 3* below shows the number of days where average daily discharges at the USGS Sattler gauge measuring Canyon reservoir outflow exceeded this threshold for the 50-year period of 1967 through 2016.

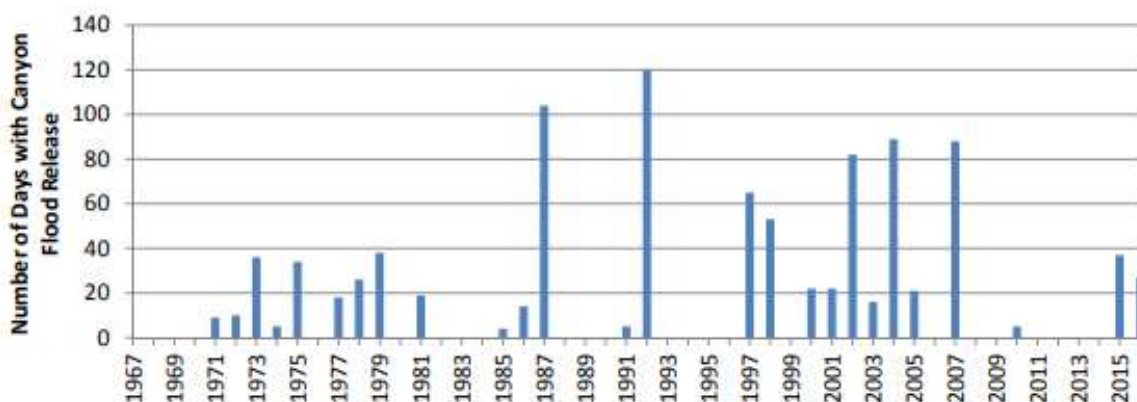


Figure 3: Canyon Release above 1500 cfs, 1967-2016

For the historic events shown in *Figure 3* above, the new modernized gates would increase hydroelectric production by maintaining accurate normal pool elevations during these elevated flows which will also lead to a decrease in operational costs.

- *Provide information about the duration that the hydro system has been offline and the reasons why it has been mothballed. Please include any regulatory reporting or filings (e.g. FERC filings) or other documentation regarding the system.*

In March of 2023, two of the three aging gates were permanently opened and the reservoir of Meadow Lake was drained due to the potential risk of sudden and catastrophic failure of the existing gates. With the dam no longer impounding water, hydroelectric production has ceased and the hydro facility was mothballed. While not in operation, MLWCID, the current owners GBRA, and Sorenson have worked together to plan and maintain the hydro facility to minimize impacts and ensure prompt operation again once back online.

Between 2016 and 2019, two of the six dams within the system without warning suffered catastrophic failure. Each failure resulted in the sudden discharge of water and the draining of the associated lake. After the Lake Dunlap Dam failure, an independent expert panel consisting of engineers and the Chief of the Texas Division of Emergency Management recommended specific areas around the dams to be designated as prohibited or restricted use for activities, along with safety measure recommendations, all of which were temporarily implemented by court order. The report, "Guadalupe Valley Lakes Report #1 of the Independent Expert Panel" describes the safety issues and can be provided upon request.

Describe any other benefits of the hydropower project. Please describe and provide sufficient detail on any additional benefits expected to result from the renewable energy project, including:

- *How the system will combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions.*

Hydroelectricity is one of the cleanest sources of power currently available. For more than 90 years, natural flows of the Guadalupe River have been passed through the turbines of hydroelectric plants to generate electricity for basin residents. These flows are returned to the river, unchanged, for use by others. While only a small contributor to Texas' energy portfolio, hydropower plays an important role. Hydropower is a rechargeable and endless cycle of generation which uses existing water supplies like lakes and reservoirs and

costs relatively little to produce. The Lake Meadow Dam Rehabilitation Project will produce an additional 7,692 MWHrs annually of carbon-free energy. According to the EPA Greenhouse Gas Equivalencies Calculator, this additional renewable energy generation is equal to a carbon dioxide-equivalent greenhouse gas emissions of 5,541 metric tons.

- *Expected environmental benefits of the renewable energy system.*

As a non-water consuming, carbon-free resource, run-of-river hydroelectric projects have low impact on the surrounding water systems, but are very environmentally friendly. The Union of Concerned Scientists have recognized that hydroelectric is the most carbon-reducing of all renewable technologies. And, because it is not as intermittent as wind and solar, it allows for the inclusion of more of those resources to be integrated into the grid. This project would allow for the resumption of hydropower at the Lake Meadow Dam, adding more carbon-free, stable energy to the grid and decreasing the need for fossil fuels. In addition, during times of energy crises, hydropower plants can direct their generated energy to areas of need, such as those experiencing outages or rolling blackouts, which has been a problem in Texas during the hot summers and unprecedented cold spells in the winter.

- *Any expected reduction in the use of energy currently supplied through a Reclamation project*

None.

- *Anticipated benefits to other sectors/entities*

Besides the resumption of hydroelectric production, benefits of the rehabilitation of Lake Meadow Dam will also include the reduction of flood risk by providing for the effective passing of flood flows and reducing the potential for upstream and downstream flood damage impacts to life and property; the improvement of water quality by avoiding the uncontrolled release of river sediments and debris and associated impacts on downstream communities and infrastructure; the support of domestic commerce by avoiding the disruption of the local community built around and downstream of Meadow Lake and potential damage to critical facilities and economic losses resulting from an uncontrolled release of the reservoir; and the protection of aquatic ecosystem structures that may be impacted from the extended loss of the upstream reservoir or damage to habitat due to the uncontrolled release of flood waters, river sediments, and debris.

Also, the project will economically benefit the surrounding Economically Disadvantaged area through the purchase of many local supplies, hiring of local electricians/mechanics during construction and the employment of one full-time and one part-time operator. The improvements to Lake Meadow Dam protect the community's investment in facilities and property around the dam and reservoir, and preserve property values throughout the community, taxes on which are a large source of area school funding.

- *Expected water needs, if any, of the system.*

The hydroelectric facility has non-consumptive water rights.

E.1.2.2 Subcriterion No. B.2: Increasing Energy Efficiency in Water Management

Up to 6 points may be awarded for projects that address energy demands and reduce greenhouse gas emissions by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions. Describe any energy efficiencies that are expected to result from implementation of the water conservation or water efficiency project (e.g., reduced pumping).

This project does not include increasing energy consumption efficiency.

E.1.3 Evaluation Criterion C—Other Project Benefits

Up to 15 points may be awarded under this criterion. This criterion prioritizes projects that address a specific water and/or energy concern(s), including enhancing drought resilience and sustainability, addressing the current and future impacts of climate change, and providing ecological benefits.

Resilience and Sustainability Benefits. *Will the project address a specific water and/or energy sustainability concern? Please address the following:*

- *Explain and provide detail of the specific issue(s) in the area that is impacting water resilience and sustainability. Consider the following:*
 - *Describe recent, existing, or potential drought or water scarcity conditions in the project area.*
 - *Is the project in an area that is experiencing, or recently experienced, drought or water scarcity?*
 - *Describe any projected increases to the severity or duration of drought or water scarcity in the project area. Provide support for your response (e.g., reference a recent climate informed analysis, if available).*

The Lake Meadow Dam Rehabilitation Project addresses water resilience and sustainability issues of the region in an indirect way. The Guadalupe Valley Hydroelectric System consists of six dams (including Lake Meadow Dam) put into service between 1928 and 1932. In 1964, the US Army Corps of Engineers completed construction of Canyon Dam upstream of the Hydroelectric System dams on the Guadalupe River Basin. Canyon Dam's original purpose was flood protection, but over the years has served more and more for water conservation and supply. In the early 1990s, the Hydroelectric System's water rights, the most senior water rights of the Guadalupe River, were subordinated in order to supply water to a growing central Texas population, a region that faces water resource challenges due to drought. Undoubtedly the region was best served by the subordination of the Hydroelectric System's water rights, but this decreased the hydroelectric production of the system, including Lake Meadow Dam. Over the years, the system of lakes became less of a regional priority for energy production and much more of an economic generator and priority to the local communities the lakes served. The reduction in hydroelectric production meant less revenues to fund ongoing maintenance, and eventually the dams fell into disrepair. In summary, the combination of the USACE building of a large dam and reservoir upstream of the Hydroelectric System and subordination of the system's water rights led to a lack of resources to fund the necessary capital improvements to address lifecycle replacements, hazard creep, and dam safety risk management.

The combination of funding from the City of Seguin, the commitment of the local community through tax revenues and awarded funds from the Bureau of Reclamation would provide the solution to restore Meadow Lake, an invaluable asset to the local community. By financing the project through the city and local tax revenues, other State and Federal governmental resources can be utilized more effectively to plan and fund solutions for the region's growing water resource supply challenges.

The replacement with new spill gates would immediately return the lake to its normal, constant-pool elevation and once again provide boating, fishing, kayaking, and swimming activities for significantly improved recreational opportunities to the local community. Meadow Lake is an official part of the Texas Paddle Trails sponsored by Texas Parks and Wildlife Department. The lake flows through the City of Seguin adjacent to a public park and with access to the lake for the local community. Residents living on the lake pump water from it for irrigation purposes, something that has become more difficult or impossible with the lake drained, putting more of a strain on city water resources.

- *Explain and provide detail of the specific issue(s) in the area that is impacting energy sustainability, such as reliance on fossil fuels, pollution, or interruptions in service.*

In March 2024, the Texas Commission on Environmental Quality (TCEQ) completed a climate pollution reduction plan called the Priority Action Plan which was funded through an EPA Climate Pollution Reduction Grant created by the Inflation Reduction Act. The plan included a greenhouse gas emissions inventory that estimated that Texas emitted 873.1 million metric tons (MMT) of CO₂ and other pollutants (greenhouse gasses or GHGs) into the atmosphere in 2021, more than any state in the US. The plan included a variety of strategies to reduce pollution, and TCEQ estimates the measures will reduce GHG emissions in Texas by 174 MMT from 2025 through 2030 and 592 MMT tons from 2025 through 2050. TCEQ will publish a Comprehensive Action Plan next year based on this data.

- *Please describe how the project will directly address the concern(s) stated above.*

The Lake Meadow Dam Rehabilitation Project would generate an estimated average of 5,541 MWh of carbon-free renewable energy annually. This will offset some of the state's non-renewable energy production, and the additional clean hydropower production will add to the strategies that TCEQ has come up with to reduce the climate pollution in Texas.

- *Will the project directly result in more efficient management of the water supply? For example, will the project provide greater flexibility to water managers, resulting in a more efficient use of water supplies?*

No.

- *Please address where any conserved water as a result of the project will go and how it will be used, including whether the conserved water will be used to offset groundwater pumping, used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.*
 - *Indicate the quantity of conserved water that will be used for the intended purpose(s).*

Since the spillway gates were lowered in March of 2023 due to safety concerns, the water level of the Meadow Lake reservoir has dropped by over 12 ft., causing a number of water irrigation issues. For property owners

adjacent to the river (~1,620 acres), irrigating by pumping out of the river is no longer feasible and they have had to switch to city water, putting added stress onto city water resources. A number of owners in the area close to the river have reported issues with their wells and their need to switch to city water for irrigation and livestock maintenance. With the rehabilitation of the spill gates at Lake Meadow Dam and the installation of measurement devices that will keep the water at a constant level, these irrigation issues will be erased, allowing city water resources to focus on non-lake properties. The estimated amount of water expected to be conserved as a direct result of this project is 1,071 acre-ft per year.

- *Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.*

An intake structure on the left bank of the dam controls flow to the 1.5-mile long diversion canal to the powerhouse. Additional power head is gained by the use of this canal. Conserved water will contribute to overall flow through the project powerhouse, resulting in an increase in energy generation. The project will allow the impounded water to refill Meadow Lake, a source of irrigation water as well as recreational opportunities for the local and regional community.

- *Will the project assist States and water users in complying with interstate compacts?*

No.

- *Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?*

Refer to the *Resilience and Sustainability Benefits* section above.

Ecological Benefits. *In addition to the separate WaterSMART Environmental Water Resources Projects NOFO, this NOFO places a priority on projects that result in ecological benefits, through this section and other sections above, consistent with the SECURE Water Act. Please provide information regarding how the project will provide ecosystem benefits, including the following:*

- *Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Please describe the relationship of the species to the water supply, and whether the species is*

adversely affected by a Reclamation project or is subject to a recovery plan or conservation plan under the Endangered Species Act (ESA).

Before it was drained in March 2023, the over 90-year-old Meadow Lake provided a sustainable environment for endangered freshwater mussels, fish, turtles, birds, snakes, deer and other animals to thrive. Meadow Lake is less than 200 surface acres and the dam only slightly widens the natural river, but substantially increases the depth, improving wildlife habitats. The near constant level for over 90 years has allowed the surrounding environment to flourish. With the lake now gone due to the lowering of the spill gates, the large protected bald cypress trees that line the bank are starting to die and the fish populations continue to decrease. Restoration of the lake will return the wildlife habitats that used to exist here.

The Guadalupe-Blanco River Authority (GBRA) is currently in the planning stages of developing the Guadalupe River Habitat Conservation Plan (GRHCP), a comprehensive, multi-species initiative designed to encompass the entirety of the Guadalupe River Basin. The GRHCP will address the complexities of water management in the basin and ensure regulatory compliance under the Endangered Species Act (ESA), striking a balance between sustainable water resource management and conservation of both at-risk and endangered species.

- *Will water remain in the system for longer periods of time? If so, provide details on current/future durations and any expected resulting benefits (e.g., maintaining water temperatures or water levels, recreational benefits, etc.).*

The project will allow the Meadow Lake Reservoir to return to its full level, improving wildlife habitats and protecting the old growth trees growing along the banks.

With two of the three spill gates fully lowered and no longer functional, the lake no longer has boating access for the local community. The replacement with new spill gates would immediately return the lake to its normal constant pool elevation and once again provide boating, fishing, kayaking, swimming, and other recreational opportunities to the local community. Meadow Lake is an official part of the Texas Paddle Trails sponsored by Texas Parks and Wildlife. The lake flows through the City of Seguin with a public park and access to the lake for the local community.

The restoration of the lake would also return the hydroelectric production, providing clean energy, a positive impact on the environment. Water levels will be maintained continuously upon project completion.

- *Will the proposed project reduce the likelihood of a species listing or otherwise improve the species status?*

At this point we cannot definitively answer whether the project and its restoration of Meadow Lake will reduce the likelihood of a species listing or otherwise improve the species status, though it is logical that returning the environment that has existed for 90 years would result in habitat improvement. The Guadalupe-Blanco River Authority (GBRA) is currently in the planning stages of developing the Guadalupe River Habitat Conservation Plan (GRHCP), a comprehensive, multi-species initiative designed to encompass the entirety of the Guadalupe River Basin. The GRHCP will address the complexities of water management in the basin and ensure regulatory compliance under the Endangered Species Act (ESA), striking a balance between sustainable water resource management and conservation of both at-risk and endangered species. This plan would have more details about how restoring the Guadalupe River Basin lakes will affect at-risk and endangered species.

- *Please describe any other ecosystem benefits as a direct result of the project.*

None.

Note: Projects that are intended to improve streamflows or aquatic habit, and that are requesting \$500,000 or more in Federal funding, must include information about plans to monitor the benefits of the project. Please describe the plan to monitor improved streamflows or aquatic habit benefits over a five-year period once the project has been completed. Provide detail on the steps to be taken to carry out the plan.

The Guadalupe-Blanco River Authority (GBRA) is in charge of monitoring habitats of the Guadalupe River Basin and will continue in that role even when the dam is transferred to MLWCID. Their Guadalupe River Habitat Conservation Plan (GRHCP) will address the complexities of water management in the basin and ensure regulatory compliance under the Endangered Species Act (ESA).

Climate Change: *E.O. 14008 emphasizes the need to prioritize and take robust actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity.*

- *Describe how the project addresses climate change and increases resiliency. For example, does the project help communities adapt to bolster drought resilience?*

Run-of-river hydroelectric projects produce carbon-free, renewable, non-water consuming energy while having a low impact on surrounding water systems. The Union of Concerned Scientists have recognized that hydro is the most carbon-reducing of all renewable technologies. Additionally, hydroelectricity allows for integration of more intermittent energy sources such as wind and solar by providing reliable generation during low production conditions for wind and solar. Overall, an investment in carbon-free, renewable energy reduces the grid's reliance on fossil fuels that produce CO₂, which is one of the leading causes of global climate change.

- *Does the project seek to improve ecological resiliency to climate change?*

The Lake Meadow Dam Rehabilitation Project would generate renewable, carbon-free energy. This would reduce reliance on fossil fuels for energy production. The resulting reduction in carbon emissions would contribute to combating climate change.

- *Does the proposed project seek to reduce or mitigate climate pollutions such as air or water pollution?*

The annual renewable energy production from the project will reduce the power grid's reliance on fossil fuels and lower greenhouse gas emissions. According to the EPA Greenhouse Gas Equivalencies Calculator, the estimated renewable energy generation for this project (7,692 MW annually) is equal to 5,541 metric tons of carbon dioxide-equivalent greenhouse gas emissions.

The proposed project will strengthen water supply sustainability because it is non-water consuming. During operation, it will conserve water while generating carbon-free, renewable energy. The project will increase resilience to climate change by generating power that does not produce CO₂ and reducing the need to generate power from fossil fuels.

- *Does the proposed project include green or sustainable infrastructure to improve community climate resilience?*

The proposed project will establish and utilize flows from the Guadalupe River as a renewable energy source.

- *Does the proposed project contribute to climate change resiliency in other ways not described above?*

The local Economically Disadvantaged community will benefit from additional jobs during construction and completion of the rehabilitation project, as well as from the added boost to local businesses once the lake is returned. Water users will benefit from the conserved water in the waterway both for irrigation and recreation. Energy users will benefit from a local source of clean, renewable energy.

E.1.4 Evaluation Criterion D—Disadvantaged Communities, Insular Areas, and Tribal Benefits

Up to 15 points may be awarded based on the extent that the project demonstrates support for the Biden-Harris Administration’s priorities, including E.O. 14008: Tackling the Climate Crisis at Home and Abroad and the President’s memorandum, Tribal Consultation and Strengthening Nation-to-Nation Relationships.

E.1.4.1 Subcriterion D.1. Disadvantaged Communities

E.O. 14008 affirms the advancement of environmental justice for all through the development and funding of programs to invest in disadvantaged communities. This criterion, which is used to identify projects that advance the Justice 40 Initiative, includes all Federally recognized Tribes and Tribal entities, and any disadvantaged communities in insular areas (American Samoa, Guam, the Northern Mariana Islands, or the Virgin Islands) identified pursuant to the following criteria.

- *Please use the White House Council on Environmental Quality’s interactive Climate and Economic Justice Screening Tool (CEJST), available online at [Explore the map Climate & Economic Justice Screening Tool \(screeningtool.geoplatform.gov/en/#17.59/36.63278/-105.181329\)](https://screeningtool.geoplatform.gov/en/#17.59/36.63278/-105.181329) to identify any disadvantaged communities that will benefit from your project. The CEJST developed by the White House Council on Environmental Quality is a geospatial mapping tool that utilizes publicly available, nationally consistent data sets related to climate change, the environment, health, and economic opportunity to identify disadvantaged communities. In addition to identifying specific census tracts that are disadvantaged, the CEJST includes the lands of Federally recognized Tribes as disadvantaged communities. In addition, regardless of whether a Federally recognized Tribe has land, all Federally recognized Tribal entities are considered disadvantaged communities for the purposes of the Justice40 Initiative.²*

The City of Seguin and the area this project serves are Economically Disadvantaged communities, and this project will create economic opportunity

for disadvantaged populations. The Low-to-Moderate Income (LMI) for the community surrounding the Lake Meadow Dam and Meadow Lake area is 59.2%. The community is also identified as a Disadvantaged Community by the Climate and Economic Justice Screening Tool. The main Threshold Burdens contributing to this designation are low income and a very low high school education rate. Additionally, the health of the local community puts the share of people with diabetes and heart disease higher than national percentiles. Most Seguin residents live in four census tracts; three tracts have 17%, 21% and 34% of residents living below the 100% poverty level. For two of these tracts, 27% and 35% of residents age 25 and over have less than a high school degree. The median household income is \$58,165. 56.5% of our community identifies as Hispanic or Latino with 32.1% speaking a language other than English in their home.

MLWCID is committed to supporting Justice40 communities by strengthening critical dam infrastructure and the communities it serves through both renewable power generation and healthy recreational opportunities. Notably, the entirety of the power generated from the Lake Meadow Dam hydro has a direct impact on these Disadvantaged Communities, providing clean energy through the Guadalupe Valley Electric Cooperative (GVEC) Distribution system.

- *If applicable, describe how the proposed project will serve or benefit a disadvantaged community, identified using the tool. For example, will the project improve public health and safety by addressing water quality, add new water supplies, provide economic growth opportunities, or provide other benefits in a disadvantaged community?*

In March of 2023, Meadow Lake was drained due to the potential risk of sudden and catastrophic failure of the existing gates. With the dam no longer impounding water, hydroelectric production has ceased. The Lake Meadow Dam Rehabilitation Project would replace the floodgates, returning Meadow Lake and resuming the hydroelectric production. This would provide clean renewable energy to the regional community, a community where the power generation would service 40% of Disadvantaged Communities.

Disadvantaged Community residents within the project will have decreased energy costs due to this hydroelectric facility. The benefit will be delivered through the production of hydroelectric power generated by the dams in the Guadalupe River Basin and delivered to the Guadalupe Valley Electric Cooperative (GVEC), a large regional energy provider in South Central Texas. Benefits will be delivered through the monthly GVEC bills that customers receive. Once dam flows are stabilized through this infrastructure

improvement, metrics will be tracked and reported as to how much hydroelectric power is generated and the customer benefit to the Disadvantaged Community.

MLWCID's dam improvement project not only enhances safety and infrastructure but also directly fuels economic growth and job creation within the Disadvantage Community region and beyond. Investing in the rehabilitation and modernization of the dam will create numerous construction jobs, stimulating the local economy. Jobs will be created for skilled workers in construction, manufacturing, and other areas of expertise from within the Disadvantaged Community, providing stable employment and income. Moreover, the project and resulting lake will spur the demand for local goods and services, benefitting area businesses in the City of Seguin. This job creation not only bolsters the livelihoods of local residents, but also supports the broader economic vitality of our region, further emphasizing the project's positive impact on the community.

Meadow Lake abuts the main public park in Seguin. When it is full, it will again provide the entire community, including the Disadvantaged Community, with recreational opportunities such as boating, tubing, fishing, kayaking and swimming, creating healthy outdoor activities for the community.

E.1.4.2 Subcriterion D.2. Tribal Benefits

The Department is committed to strengthening tribal sovereignty and the fulfillment of Federal Tribal trust responsibilities. The President's memorandum, Tribal Consultation and Strengthening Nation-to-Nation Relationships, asserts the importance of honoring the Federal Government's commitments to Tribal nations.

Not applicable to this project.

E.1.5 Evaluation Criterion D - Complementing On-Farm Irrigation Improvements

Up to 8 points may be awarded for projects that describe in detail how they will complement on-farm irrigation improvements eligible for NRCS financial or technical assistance.

This project will not complement on-farm irrigation improvements.

E.1.6 Evaluation Criterion F—Readiness to Proceed

Up to 8 points may be awarded for this criterion.

Points may be awarded based upon the extent to which the proposed project is capable of commencing upon entering into a financial assistance agreement. Note: If

your project is selected, responses provided in this section will be used to develop the scope of work that will be included in the financial assistance agreement.

Applications that include a detailed project implementation plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.

- *Identify and provide a summary description of the major tasks necessary to complete the project. Note: please do not repeat the more detailed technical project description provided in Section D.2.2.2; this section should focus on a summary of the major tasks to be accomplished as part of the project.*

On November 16, 2021, the City Council of the City of Seguin adopted a Resolution partnering with the non-profit organization Meadow Lake Nolte Dam Association (MLNDA) to engage engineering consultants Freese and Nichols, Inc. to investigate potential economically feasible solutions for the rehabilitation of Lake Meadow Dam. Results of the preliminary engineering study proved viable, leading to the creation of the Meadow Lake Water Control and Improvement District No. 1 (MLWCID) to fund the necessary repairs of Lake Meadow Dam and as a means for the local community to take ownership of the dam. On November 8, 2022, the voters within the MLWCID, by majority vote, confirmed the creation of the MLWCID. On November 7, 2023, the voters within the MLWCID by majority vote authorized the issuance of bonds in an amount not to exceed \$15,840,000 to fund improvements to Lake Meadow Dam and related facilities, and the levy of an ad valorem tax, in unlimited amount, sufficient to pay principal and interest on the bonds. .

On August 15, 2023, the City Council of the City of Seguin adopted a resolution to contribute \$5,000,000 for the repairs of Lake Meadow Dam, evidencing the City's planned financial commitment to the project. Therefore, funding of the project is shared between the City of Seguin and MLWCID, representing a 100% funding commitment from the local community for the Lake Meadow Dam Rehabilitation Project.

On November 7, 2023, the Guadalupe-Blanco River Authority (GBRA) and MLWCID executed a Memorandum of Understanding outlining the necessary steps for transfer of ownership of Lake Meadow Dam to the MLWCID, evidencing the current owner and State River Authority's support to provide ownership to the MLWCID and local community. Negotiations for a final conveyance agreement continue, and the agreement will need to be executed before MLWCID will begin construction.

On April 2nd 2024 the City of Seguin and MLWCID executed an interlocal agreement for the funding commitment by the City not to exceed \$5,000,000. In June 2024, the City of Seguin released \$1.36M of the \$5M they had committed in order for final engineering to begin on the project. The Professional Services Agreement (PSA) for Engineering Services for the project was fully executed and final engineering work began in June 2024, with an estimated 10-month duration. Permits are also in the process of being obtained. Once final engineering is completed, the MLWCID will bid the project out and move forward with construction, provided the costs are within the funding amount authorized by voters in the November 2023 election (a combined total of \$20.8 million for the project which includes \$5 million from the City of Seguin).

In September 2024, MLWCID was invited by the US Army Corps of Engineers to submit a full application to their Corps Water Infrastructure Program (CWIFP) which will finance up to 80% of project cost. The MLWCID plans to submit this application within the next few months.

Major tasks necessary to complete the project include (with estimated dates):

- Complete engineering investigation work, including hydrologic and hydraulic analysis, geotechnical investigations, concrete condition assessment - end of 2024
 - Secure financing through the US Army Corps Water Infrastructure Financing Program (CWIFP) - March 2025
 - Finalize Conveyance Agreement with GBRA – April 2025
 - Complete all engineering, environmental assessment and permitting - June 2025
 - Go out to construction companies for bids - July 2025
 - Start Construction – September 2025
 - Finalize operator agreement with Sorenson
- *Describe any permits that will be required, along with the process for obtaining such permits.*

Permits that the Lake Meadow Dam Rehabilitation Project will include:

- Section 404 of the Clean Water Act from USACE - covered with Nationwide Permit (NWP) 3 for Maintenance.
- Aquatic Resource Relocation Permit from Texas Parks and Wildlife Department (TPWD) – to survey and relocate state/federal freshwater mussels.

- TPDES Construction Permit from Texas Commission on Environmental Quality (TCEQ) – to address construction stormwater and maintain state water quality standards.
- Antiquities Permit from Texas Historical Commission – to address potential impacts to a historic structure or property (i.e., the dam is considered a historic structure).
- Dam Safety Program, Construction Plans and Specifications Approval from TCEQ

Engineering consultants are working to obtain the above permits with permitting completion planned for second quarter 2025. Further details of planned permits are included in the executed Professional Services Agreement for engineering services and available upon request.

- *Identify and describe any engineering or design work performed specifically in support of the proposed project.*

A preliminary engineering report was completed by Freese and Nichols, Inc. in August 2023 and is available upon request. The results and planned improvements from the study are summarized below:

Replacement of Floodgates/Spill Gates: The original wooden bear trap spill gates will be replaced with a modern Obermeyer gate system. The replacement with new gates will eliminate the potential for catastrophic gate failure (as happened to two of the other dams in the system), and increase the resiliency of the facility against sudden discharge of water and draining of the lake. Currently the gates are not operational and not able to safely pass flood waters. The potential for loss of life and property damage to the surrounding disadvantaged community continues to exist, and funding to replace the gates is necessary. The replacement with a modern gate system will also allow for more reliable operations, full automation, and reduced maintenance. The Obermeyer gates are made in America, meeting the Buy America Domestic Procurement Preference requirements.

Foundation Stability Improvements: A stability analysis was performed to assess the existing conditions of the spillway at Lake Meadow Dam as well as for the proposed gate modifications for compliance with current dam safety criteria. The results show a foundation below modern safety factors for stability, specifically against sliding. The proposed concrete infill mass needed to install the new Obermeyer gates plus the addition of anchors will bring the foundation into compliance with today's safety standards for foundation stability. The project is currently undergoing final engineering which will

confirm foundation stability and if remedial measures to satisfy stability are required

Maintenance and Dewatering Improvements: Because Meadow Lake Dam was built between 1928 - 1932, a method to maintain the gates does not exist. The project will install two new tower cranes, one on each side of the spillway, providing full coverage for lifting and increased ability to replace the gates during construction and for all future maintenance. The combination of the tower cranes and new stop log system will constitute a reliable and safe dewatering system for all construction activities and future maintenance. With a properly engineered crane foundation and the most modern tower cranes available on the market, the reliability and safety for maintenance of the gates will substantially increase.

Hydrologic & Hydraulic Analysis Plan and Implementation: Currently, the risk of flooding to downstream structures and property due to an earthen embankment breach of Lake Meadow Dam is not well understood. Engineering analysis of the river hydraulics and embankment stability will be completed during Engineering Design, coordinated with the Texas Commission on Environmental Quality Dam Safety Program, and addressed as part of the operations and maintenance plan for Lake Meadow Dam and Meadow Lake Reservoir.

- *Describe any new policies or administrative actions required to implement the project.*

MLWCID and GBRA continue to work towards a binding Conveyance Agreement for Lake Meadow Dam. Two memoranda of understanding outlining the terms for transfer have been agreed to previously by both the MLWCID and GBRA. Negotiations for a final conveyance agreement continue. The MLWCID expects that once all funding for the project has been secured and the District provides all relevant information to GBRA, both parties will then execute the Conveyance Agreement. Under the proposed Agreement, upon proof of the MLWCID's ability to finance the Lake Meadow Dam Rehabilitation Project and confirmation of the final cost of the project, GBRA will transfer ownership of the dam to the MLWCID.

- *Describe the current design status of the project. If additional design work is required prior to construction, describe the planned process and timeline for completing the design work.*

Final engineering was started in June 2024 by GEI Consultants with an estimated 10-month lead time. The executed professional services agreement

detailing the engineering and design work is available upon request. See the detailed project schedule in the section below.

Once final engineering is completed, the MLWCID will bid the project out and move forward with construction, provided the costs are within the funding amount authorized by voters in the November 2023 election (a combined total of \$20.8 million for the project which includes \$5 million from the City of Sequim). Construction is expected to commence September 2025.

- *Please also include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: complete environmental and cultural compliance; begin construction/installation; construction/installation (50% complete); and construction/installation (100% complete). Was the expected timeline for environmental and cultural compliance discussed with the local Reclamation Regional or Area Office?*

The expected timeline for environmental and cultural compliance was not discussed with the local Reclamation Regional or Area office; however, the project has already identified permitting under Section 404 of the Clean Water Act from the USACE and permitting to comply with Section 106 of the National Historic Preservation Act. Please see the project schedule for the Lake Meadow Dam Rehabilitation Project in *Figure 4* below. Final Design work is estimated at 20% complete with construction/installation at 0% complete

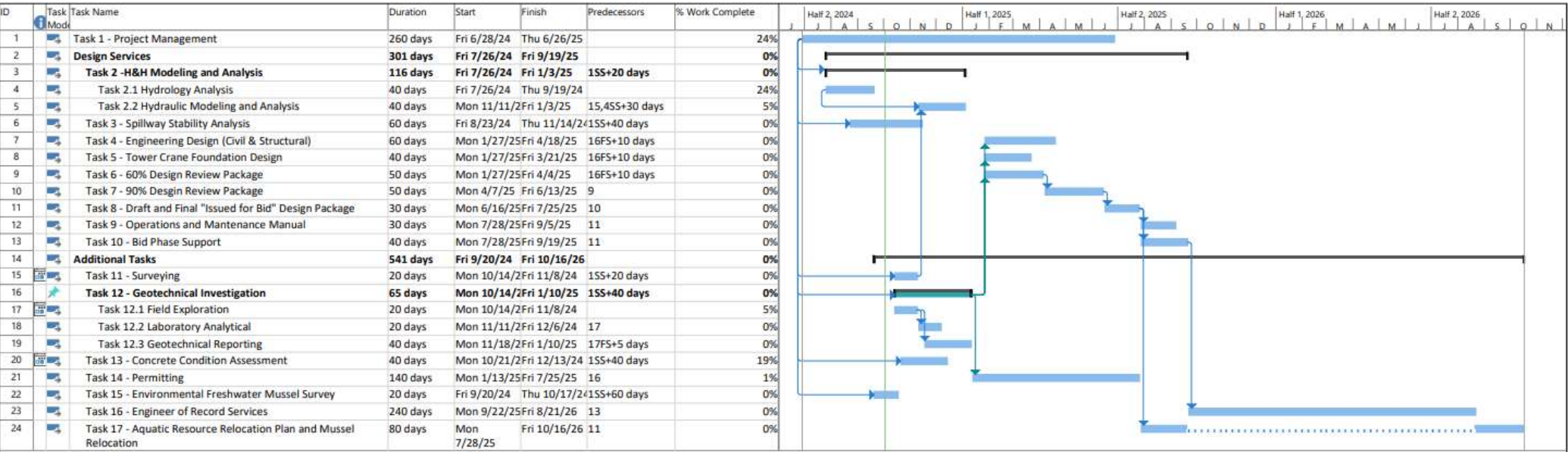


Figure 4: Lake Meadow Dam Rehabilitation Project Schedule

E.1.7 Evaluation Criterion G—Collaboration

Up to 5 points may be awarded for projects that promote and encourage collaboration among parties in a way that helps increase the sustainability of the water supply.

Please describe how the project promotes and encourages collaboration. Consider the following:

- *Is there widespread support for the project? Please provide specific details regarding any support and/or partners involved in the project. What is the extent of their involvement in the process?*

The Lake Meadow Dam Rehabilitation Project has had widespread support from both the City of Seguin and the community that Meadow Lake serves from the very beginning of the project. The following are activities that evidence that support:

On November 16, 2021, the City Council of the City of Seguin adopted a Resolution partnering with the non-profit organization Meadow Lake Nolte Dam Association (MLNDA) to engage engineering consultants Freese and Nichols, Inc. to investigate potential economically feasible solutions for the rehabilitation of Lake Meadow Dam. Results of the preliminary engineering study proved viable, leading to the creation of the Meadow Lake Water Control and Improvement District No. 1 (MLWCID) to help fund the necessary repairs of Lake Meadow Dam and as a means for the local community to take ownership of the dam.

On July 5, 2022, the City Council of the City of Seguin adopted a Resolution to evidence the City's desire to facilitate the repair of Lake Meadow Dam, and to provide consent to the creation of the MLWCID for improvement of the dam facilities and the restoration of Meadow Lake.

On August 16, 2022, the Commissioners Court of Guadalupe County adopted an Order formally approving creation of the MLWCID for purposes of improving the Lake Meadow Dam and restoring Meadow Lake.

On November 8, 2022, the voters within the MLWCID, by majority vote (90.61% yes), confirmed the creation of the MLWCID.

On August 15, 2023, the City Council of the City of Seguin adopted a resolution to contribute \$5,000,000 for the repairs of Lake Meadow Dam, evidencing the City's planned financial commitment to the project. Therefore, funding of the project is shared between the City of Seguin and Meadow Lake

Water Control and Improvement District No.1, representing a 100% funding commitment from the local community for the Lake Meadow Dam Rehabilitation Project.

In September 2023, the following government entities and representatives provided formal letters of support:

- Meadow Lake Water Control and Improvement District No. 1
- City of Seguin, Mayor's Office
- City of Seguin, City Manager's Office
- John Kuempel, State of Texas House of Representatives
- Donna Campbell, State of Texas Senator
- Judith Zaffirini, State of Texas Senator
- Roland Gutierrez, State of Texas Senator

On November 7, 2023, the voters within the MLWCID, by majority vote (82% vote yes), authorized the issuance of bonds in an amount not to exceed \$15,840,000 to fund improvements to Lake Meadow Dam and related facilities, and the levy of an ad valorem tax, in unlimited amount, sufficient to pay principal and interest on the bonds.

On November 7, 2023, the Guadalupe Blanco River Authority (GBRA) and Meadow Lake Water Control and Improvement District No.1 executed a Memorandum of Understanding outlining the necessary steps for transfer of ownership of Lake Meadow Dam to the MLWCID, evidencing the current owner and State River Authority's support to provide ownership to the MLWCID and local community.

In May 2024, the City of Seguin released \$1.36M of the \$5M they had committed in order for final engineering to begin on the project.

- *What is the significance of the collaboration/support?*

The overwhelming support of both the City of Seguin and the community (who voted by 82% yes to tax themselves to bring the lake and hydroelectric back), shows just how important Meadow Lake is to the economy and life of the city. Meadow Lake has had a huge impact on the success and growth of Seguin, and pictures of it when it was full are featured on most brochures from the Chamber of Commerce and local magazines.

- *Will this project increase the possibility/likelihood of future water conservation improvements by other water users?*

If the MLWCID is successful in rehabilitating the dam and restoring the original lake level for future water conservation purposes, this will pave the way for two of our sister lakes downstream to find solutions for restoring their lakes.

- *Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?*

With two of the three spill gates fully lowered and no longer functional, the lake no longer has boating access for the local community. The replacement with new spill gates would immediately return the lake to its normal constant pool elevation and once again provide boating, fishing, kayaking, swimming, and other recreational opportunities to the local community. Meadow Lake is an official part of the Texas Paddle Trails sponsored by Texas Parks and Wildlife. Meadow Lake abuts the main public park in Seguin. When it is full, it will again provide the entire community, including the Disadvantaged Community, with recreational opportunities, creating healthy outdoor activities for the community.

Before it was drained in March 2023, the over 90-year-old lake provided a sustainable environment for endangered freshwater mussels, fish, turtles, birds, snakes, deer, and other animals to thrive. Meadow Lake is less than 200 surface acres and the dam only slightly widens the natural river, but substantially increases the depth, improving wildlife habitats. The near constant level for over 90 years has allowed the surrounding environment to flourish. With the lake now gone due to the lowering of the spill gates, the large protected bald cypress trees that line the bank are starting to die and the fish populations continue to decrease. Restoration of the lake will return the wildlife habitats that used to exist here.

MLWCID's dam improvement project not only enhances safety and infrastructure but also directly fuels economic growth and job creation within the Disadvantage Community region and beyond. Investing in the rehabilitation and modernization of the dam will create numerous construction jobs, stimulating the local economy. Jobs will be created for skilled workers in construction, manufacturing, and other areas of expertise from within the Disadvantaged Community, providing stable employment and income. Moreover, the project and resulting lake will spur the demand for local goods and services, benefitting area businesses in the City of Seguin. This job creation not only bolsters the livelihoods of local residents, but also supports the broader economic vitality of our region, further emphasizing the project's positive impact on the community.

- *Please attach any relevant supporting documents (e.g., letters of support or memorandum of understanding).*

Letters of Support are included as Attachment 3.

E.1.8 Evaluation Criterion H—Nexus to Reclamation

Up to 4 points may be awarded if the proposed project is connected to a Reclamation project or Reclamation activity. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.

Describe the nexus between the proposed project and a Reclamation project or Reclamation activity. Please consider the following.

- *Does the applicant have a water service, repayment, or O&M contract with Reclamation?*

No.

- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*

No.

- *Will the proposed work benefit a Reclamation project area or activity?*

No.

- *Is the applicant a tribe?*

No.

PERFORMANCE MEASURES

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g. water saved or better managed, energy generated or saved).

For measuring the Renewable Energy Increase through the resumption of hydroelectric, the project will use a control panel which will display the maximum generational output (i.e. capacity) after the project is recommissioned. A utility grade meter will measure actual annual generation of the project. This can be compared to the average annual generation prior to the improvements.

For measuring the Quantifiable Water Savings, the installation of an upstream water level control system will position the gates and keep the normal pool elevation at a constant level, subsequently confirming the amount of water that is conserved annually as a direct result of this project (approximately 1,071 acre-feet per year).

ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants should consider the following list of questions focusing on the NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to:

- Will the project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.*

The project will utilize the existing footprint of the dam with all construction accomplished within this footprint, providing for minimal environmental impacts. Potential environmental impacts of the project's construction and the associated permitting are listed below:

- Potential impact from fill discharge on Guadalupe River – due to temporary access fills. This is regulated by Section 404 of the Clean Water Act. Avoidance and minimization would include water quality BMPs.
- Potential impact from fill discharge on state or federally protected freshwater mussels – due to temporary fills. This is regulated by TPWD and state regulations; could also be regulated by USFWS and Endangered Species Act (depending on species present). Avoidance and minimization would involve surveys and relocations out of the project area.
- Potential impact from stormwater runoff – due to construction site disturbances. This is regulated by Section 401 of the Clean Water Act (but covered by the TPDES construction permit). Avoidance and minimization efforts would involve implementation of water quality BMPs, implementation of SWPPP.
- Potential impact to Historic Structure – due to general dam improvements. This would be regulated by Section 106 of the National Historic Preservation Act. Avoidance and minimization might include use of specific materials or design to match the original concepts.

The positive environmental benefits of the Lake Meadow Dam Rehabilitation Project should also be considered to understand a broader perspective of restoring the lake. Positive environmental impacts are discussed further below.

- *Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*

The Guadalupe River is home to 18 federally listed endangered species, eight federally listed threatened species, numerous candidate species being considered for endangered status and potentially newly described species. On June 4, 2024, the U.S. Fish and Wildlife Service (USFWS) issued a final rule designating three freshwater mussel species native to the Guadalupe River Basin as “endangered species” under the federal Endangered Species Act. These species include the Guadalupe fatmucket, the Guadalupe orb and the false spike. Project activities would be planned in coordination with appropriate state and federal agencies to ensure there is no impact on these species.

When GBRA elected to drain the hydroelectric lakes in March of 2023, the habitat for these species that had been in place since the installation of the dams in early 1930's was drastically altered. The over 90-year-old lake has provided an environment for fish, turtles, birds, snakes, deer, and other animals to thrive. Meadow Lake is less than 200 surface acres and the dam only slightly widens the natural river, but substantially increases the depth, improving wildlife habitats. The near constant level for over 90 years has allowed the surrounding environment to flourish. With the lake now gone due to the lowering of the spill gates, the large protected bald cypress trees that line the bank are starting to die and the fish populations continue to decrease. Repairing the dam and restoring the lake will return the wildlife habitats that used to thrive here, helping to protect these threatened and endangered species. The restoration of the lake would also return the hydroelectric production, providing clean energy, a positive impact on the environment.

- *Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the project may have.*

No wetlands have been identified inside the project boundaries. The Guadalupe River falls under CWA jurisdiction as "Waters of the United States." The project will resume the use of an intake structure on the left bank of the dam which diverts water from the Guadalupe River for the purpose of power production after which it is returned to the river. The intake controls flow to a 1.5-mile-long diversion canal to the powerhouse. Additional power head is gained by the use of this canal. This diversion has no impact on the surrounding environment or quality of water.

- *When was the water delivery system constructed?*

The Lake Meadow Dam and hydroelectric facility was constructed in 1930 with the primary purpose of hydroelectric.

- *Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.*

The proposed project will replace the deteriorated spill gates with modernized Obermeyer gates and improve the dam spillway to address current identified hydraulic and structural deficiencies. The proposed improvements involve adding a concrete infill mass in order to install the new Obermeyer gates plus the addition of anchors to bring the foundation into compliance with today's safety standards for foundation stability. The project will also install two new tower cranes, one on each side of the spillway, providing full coverage for lifting and an increased ability to replace the gates during construction and for all future maintenance.

The project will convey water in the same manner as the original design.

- *Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.*

The Lake Meadow Dam and hydro facility are eligible for inclusion in the National Register of Historic Places (NRHP). However, there are currently no project features listed in the NRHP. The project will comply with Section 106 of the National Historic Preservation Act.

- *Are there any known archeological sites in the proposed project area?*

No archeological sites have been identified to date. The project will comply with Section 404 of the Clean Water Act and Section 106 of the National Historic Preservation Act.

- *Will the proposed project have a disproportionate and adverse effect on any communities with environmental justice concerns?*

The project will produce no significant pollution or visual disturbance. It is remote enough that generator noise will not impact any residential populations. The applicant will comply with all relevant water quality standards. This project will have no significant effect on low income or minority populations.

- *Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?*

No, the project site is not within tribal lands.

- *Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?*

Project activities as well as project operation will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.

REQUIRED PERMITS OR APPROVALS

Applicant should state whether any permits or approvals are necessary and explain the plan for obtaining such permits or approvals.

On May 22, 1980, the Federal Energy Regulatory Commission (FERC) issued a Declaratory Order Finding Licensing Not Required for the Guadalupe Valley Hydroelectric System consisting of six dams, including Lake Meadow Dam. The Lake Meadow Dam Rehabilitation Project will not require FERC licensing and will not be delayed in any way due to this.

Permits that the project would potentially need include:

- Section 404 of the Clean Water Act from USACE - covered with Nationwide Permit (NWP) 3 for Maintenance.
- Aquatic Resource Relocation Permit from Texas Parks and Wildlife Department (TPWD) – to survey and relocate state/federal freshwater mussels.
- TPDES Construction Permit from Texas Commission on Environmental Quality (TCEQ) – to address construction stormwater and maintain state water quality standards.
- Antiquities Permit from Texas Historical Commission – to address potential impacts to a historic structure or property (i.e., the dam is considered a historic structure).
- Dam Safety Program, Construction Plans and Specifications Approval from TCEQ

Engineering consultants are working to obtain the above permits with permitting completion planned for second quarter 2025. Further details of planned permits are included in the executed Professional Services Agreement for Engineering Services which is available upon request.

This project does not include improvements to any Federal facilities.

LETTERS OF SUPPORT

*Applicant should include any letters from interested stakeholders supporting the proposed project. To ensure your proposal is accurately reviewed, please attach all letters of support as an appendix. Letters of support received after the application deadline for this NOFO will not be considered in evaluating your proposed project. **These letters do not count within the 125 page maximum.***

Letters of support from the City of Seguin, State of Texas and the local community are included as Attachment 3. Note that the letters from government entities reference the US Dept. of Energy MEHI grant which the MLWCID applied for but did not ultimately get awarded. The letters from the local community reference the Texas Community Development Block Grant Regional Mitigation Program which had asked for community comments concerning the method of distribution of funds to the City of Seguin (which could be used towards our project). Letters of support include the following:

- City of Seguin, Mayor's Office
- City of Seguin, City Manager's Office
- John Kuempel, State of Texas House of Representatives
- Donna Campbell, State of Texas Senator
- Judith Zaffirini, State of Texas Senator
- Roland Gutierrez, State of Texas Senator
- Local community letters of support

ATTACHMENTS

The attachments to this Technical Proposal include the following:

Attachment 1: Lake Meadow Dam Rehabilitation Project Pictures

Attachment 2: Certification Regarding Lobbying

Attachment 3: Letters of Support

Attachment 4: Official Resolution

Meadow Lake Water Control & Improvement District No. 1

Official Resolution for the Lake Meadow Dam Rehabilitation Project

WaterSMART: Water and Energy Efficiency Grants

for Fiscal Year (FY) 2025

Funding Opportunity No. R24AS00052

October 30, 2024

WHEREAS, The U.S. Bureau of Reclamation is seeking proposals from organizations to leverage their money and resources in participation with Reclamation to stretch scarce water supplies and avoid conflicts over water through the WaterSMART: Water and Energy Efficiency Grants for FY 2025 Program;

WHEREAS, Meadow Lake Water Control & Improvement District No. 1 (MLWCID) desires to apply for funding through Reclamation's WaterSMART Grant Program;

NOW THEREFORE BE IT RESOLVED that the Board of Directors of Meadow Lake Water Control & Improvement District No. 1 agree and authorize the following:

1. The Board of Directors, Jacy Robbins, Michael Meskill, Joe Brent Hammond, Russell Rinn & Robert Raetzsch, have the legal authority to sign and enter into the agreement.
2. The Board of Directors have reviewed and support this proposal for the Lake Meadow Dam Rehabilitation Project;
3. If selected for the WaterSMART Grant, Meadow Lake Water Control & Improvement District No. 1 will work with Reclamation to meet established deadlines for entering into the grant agreement.

Jacy Robbins
MLWCID Board

Michael Meskill
MLWCID Board

Joe Brent Hammond
MLWCID Board

Russell Rinn
MLWCID Board

Robert Raetzsch
MLWCID Board



MEADOW LAKE WATER CONTROL & IMPROVEMENT DISTRICT NO. 1

4301 Bull Creek Road, Suite 150
Austin, Texas 78746
(512) 328-2008

LETTERS OF SUPPORT FROM LOCAL GOVERNMENT ENTITIES:

- Meadow Lake Water Control and Improvement District
- City of Seguin



MEADOW LAKE WATER CONTROL & IMPROVEMENT DISTRICT NO. 1

4301 Bull Creek Road, Suite 150
Austin, Texas 78746
(512) 328-2008

As your team reviews applications under the 247 Program, I and the WCID Board strongly encourage you to consider and provide financial support for GBRA's Dam Safety and Hydroelectricity Projects.

Sincerely,

Jacy Robbins
President, Meadow Lake Water Control & Improvement District No. 1

9/26/2023

The Honorable Jennifer M. Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave, SW
Washington, DC 20024

RE: Meadow Lake Dam Safety and Hydroelectricity Project submitted by the Guadalupe Blanco River Authority (GBRA)

Dear Secretary Granholm,

My name is Donna Dodgen, and I am the Mayor for the City of Seguin. I am writing to express my support for the Guadalupe-Blanco River Authority's (GBRA) Meadow Lake Dam Safety and Hydroelectricity Project.

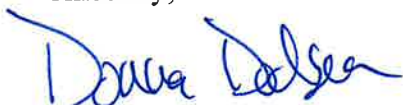
Meadow Lake is part of the Guadalupe River and constrained by Nolte Dam, forming Meadow Lake. The Guadalupe River forms the southern boundary of our downtown area. The river plays an important part in Seguin's economic vibrancy by attracting businesses and tourist dollars into our community. Without Nolte Dam, Meadow Lake would be dewatered and form an unattractive, overgrown riverbed running through our growing city. The safety and reconstruction of Nolte Dam on Meadow Lake is of utmost importance in our Disadvantaged Community.

GBRA has been unable to maintain Nolte Dam due to lack of funding resources. The Nolte Dam serves as hydroelectric generation rather than flood control. Securing state or federal funding for maintenance and repairs has posed challenges for GBRA. Funding from the Section 247 program is instrumental in rebuilding Nolte Dam.

The City of Seguin is in the process of providing a \$5 million contribution to the planned project to rehabilitate Nolte Dam. The reconstruction of the Nolte Dam on Meadow Lake would be significant for our community.

We encourage you to consider Guadalupe-Blanco River Authority's (GBRA) Meadow Lake Water Control and Improvement District (WCID) Dam Safety and Hydroelectricity Project.

Sincerely,



Donna Dodgen

City of Seguin Mayor

It's real.

9/26/2023

The Honorable Jennifer M. Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave, SW
Washington, DC 20024

RE: Meadow Lake Dam Safety and Hydroelectricity Project submitted by the Guadalupe Blanco River Authority (GBRA)

Dear Secretary Granholm,

My name is Steve Parker, and I am the City Manager for Seguin. I am writing to express my support for the Guadalupe-Blanco River Authority's (GBRA) Meadow Lake Dam Safety and Hydroelectricity Project.

Meadow Lake is part of the Guadalupe River and constrained by Nolte Dam, forming Meadow Lake. The Guadalupe River forms the southern boundary of our downtown area. The river plays an important part in Seguin's economic vibrancy by attracting businesses and tourist dollars into our community. Without Nolte Dam, Meadow Lake would be dewatered and form an unattractive, overgrown riverbed running through our growing city. The safety and reconstruction of Nolte Dam on Meadow Lake is of utmost importance in our Disadvantaged Community.

GBRA has been unable to maintain Nolte Dam due to lack of funding resources. The Nolte Dam serves as hydroelectric generation rather than flood control. Securing state or federal funding for maintenance and repairs has posed challenges for GBRA. Funding from the Section 247 program is instrumental in rebuilding Nolte Dam.

The City of Seguin is in the process of providing a \$5 million contribution to the planned project to rehabilitate Nolte Dam. The reconstruction of the Nolte Dam on Meadow Lake would be significant for our community.

We encourage you to consider Guadalupe-Blanco River Authority's (GBRA) Meadow Lake Water Control and Improvement District (WCID) Dam Safety and Hydroelectricity Project.

Sincerely,



Steve Parker

City Manager



The State of Texas House of Representatives

JOHN KUEMPEL DISTRICT 44 • GUADALUPE & GONZALES COUNTIES

September 19, 2023

The Honorable Jennifer M. Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave, SW
Washington, DC 20024

Dear Secretary Granholm:

I am writing to express my support for the Guadalupe-Blanco River Authority's (GBRA) Dam Safety and Hydroelectricity Projects, which are being submitted for consideration under the 2023 Department of Energy Section 247 Maintaining and Enhancing Hydroelectricity Incentives Program.

GBRA will submit this request for federal assistance to fund critical infrastructure improvements at four key hydroelectric dams in the Guadalupe River Basin, namely Lake Dunlap, Lake McQueeney, Lake Placid and Meadow Lake. These dams were originally built between 1928 – 1932, have over extended their life span. The dire need for these improvements became evident in 2019 when Lake Dunlap suffered a catastrophic dam failure, leading to the rapid dewatering of the lake within 24 hours. The aftermath of this situation had lasting effects on our local and regional economies. Local businesses that relied on the lake's recreation experienced a decline in revenue.

The lack of funding for essential repairs has been the major contributing factor to the condition of these dams. Since these dams primarily serve hydroelectric purposes rather than flood control, securing state or federal funding for their maintenance has posed significant challenges for the river authority. In response to these pressing concerns, GBRA made the pivotal decision to temporarily dewater four lakes as part of a comprehensive initiative aimed at addressing the aging dam infrastructure and safeguarding the communities in the vicinity.

GBRA's commitment to our region extends far beyond energy generation, it directly impacts the well-being of our communities. GBRA delivers all the hydroelectric power generated in the Guadalupe River Basin to the Guadalupe Valley Electric Cooperative (GVEC), a large regional energy provider where 40% of its service area comprises Disadvantaged Communities (DACs).

Federal investment in this project would not only support critical infrastructure but also provide safety, environmental, and electric generation benefits to disadvantaged communities in South Central Texas. This initiative aligns with the Department of Energy's commitment to equitable development and sustainable energy solutions, offering a unique opportunity to grow economic vitality of the Guadalupe River Basin.

As your team reviews applications under the 247 Program, I strongly encourage you to consider GBRA's Dam Safety and Hydroelectricity Projects.

Sincerely,

A handwritten signature in black ink, appearing to read "John Kuempel", is written over the printed name. The signature is stylized with a large initial "J" and a long horizontal stroke.

John Kuempel



DONNA CAMPBELL, M.D.

TEXAS STATE SENATOR
DISTRICT 25

September 18, 2023

The Honorable Jennifer M. Granholm, Secretary
U.S. Department of Energy
1000 Independence Ave, SW
Washington, DC 20024

Dear Secretary Granholm:

I am writing to express my support for the Guadalupe-Blanco River Authority's (GBRA) Dam Safety and Hydroelectricity Projects, which are being submitted for consideration under the 2023 Department of Energy Section 247 Maintaining and Enhancing Hydroelectricity Incentives Program.

GBRA will submit this request for federal assistance to fund critical infrastructure improvements at four key hydroelectric dams in the Guadalupe River Basin, namely Lake Dunlap, Lake McQueeney, Lake Placid and Meadow Lake. These dams were originally built between 1928 – 1932, have over extended their life span. The dire need for these improvements became evident in 2019 when Lake Dunlap suffered a catastrophic dam failure, leading to the rapid dewatering of the lake within 24 hours. The aftermath of this situation had lasting effects on our local and regional economies. Local businesses that relied on the lake's recreation experienced a decline in revenue.

The lack of funding for essential repairs has been the major contributing factor to the condition of these dams. Since these dams primarily serve hydroelectric purposes rather than flood control, securing state or federal funding for their maintenance has posed significant challenges for the river authority. In response to these pressing concerns, GBRA made the pivotal decision to temporarily dewater four lakes as part of a comprehensive initiative aimed at addressing the aging dam infrastructure and safeguarding the communities in the vicinity.

GBRA's commitment to our region extends far beyond energy generation, it directly impacts the well-being of our communities. GBRA delivers all the hydroelectric power generated in the Guadalupe River Basin to the Guadalupe Valley Electric Cooperative (GVEC), a large regional energy provider where 40% of its service area comprises Disadvantaged Communities (DACs).

Federal investment in this project would not only support critical infrastructure but also provide safety, environmental, and electric generation benefits to disadvantaged communities in South

Central Texas. This initiative aligns with the Department of Energy's commitment to equitable development and sustainable energy solutions, offering a unique opportunity to grow economic vitality of the Guadalupe River Basin.

As your team reviews applications under the 247 Program, I strongly encourage you to consider GBRA's Dam Safety and Hydroelectricity Projects.

Sincerely,

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

Donna Campbell, M.D.
Texas Senate District 25

Vice Chair, Natural Resources and
Economic Development
Texas Judicial Council
Chair, Eagle Ford Shale
Legislative Caucus



Judith Zaffirini
State Senator, District 21
President Pro Tempore, 1997

Committees
Business and Commerce
Finance
Redistricting
State Affairs

September 21, 2023

The Honorable
Jennifer M. Granholm, Secretary of Energy
U.S. Department of Energy
1000 Independence Ave, SW
Washington, D.C. 20024

Dear Secretary Granholm:

This is to support strongly the Guadalupe-Blanco River Authority's (GBRA) application for a Dam Safety and Hydroelectricity Projects grant from the 2023 Department of Energy Section 247 Maintaining and Enhancing Hydroelectricity Incentives Program. This federal assistance would fund critical infrastructure improvements at four key hydroelectric dams in the Guadalupe River Basin, namely, Lake Dunlap, Lake McQueeney, Lake Placid, and Meadow Lake.

Built between 1928 and 1932, these dams have surpassed their expected life span. Their dire need for improvements became clear in 2019 when Lake Dunlap suffered a catastrophic dam failure, leading to the rapid dewatering of the lake within 24 hours. The aftermath of this situation had lasting effects on regional economies. Local businesses that relied on the lake's recreation, for example, experienced a decline in revenue.

Lack of funding for essential repairs has been the major contributing factor to the condition of these dams, which primarily serve hydroelectric purposes rather than flood control. Securing state or federal funding for their maintenance has posed significant challenges for the river authority. In response to these pressing concerns, GBRA made the pivotal decision to temporarily dewater four lakes as part of a comprehensive initiative to address the aging dam infrastructure and safeguard nearby homes, businesses, and other properties.

Although GBRA directly affects the well-being of these communities, its commitment to the region extends far beyond energy generation. It delivers all the hydroelectric power generated in the Guadalupe River Basin to the Guadalupe Valley Electric Cooperative (GVEC), a large regional energy provider that reports 40 percent of its service area comprises Disadvantaged Communities (DACs). Accordingly, federal investment in this project would not only support critical infrastructure, but also provide safety, environmental, and electric generation benefits to disadvantaged communities in South Central Texas. Clearly, this initiative aligns with the Department of Energy's commitment to equitable development and sustainable energy solutions, offering a unique opportunity to grow the economic vitality of the Guadalupe River Basin.

I strongly encourage you to consider favorably GBRA's application for a Dam Safety and Hydroelectricity Projects grant. Feel free to contact me or my staff if we can provide additional information or support for this important infrastructure project. My prayer is that the Lord will bless you and inspire you to agree with my perspective.

Very truly yours,

A handwritten signature in cursive script, reading "Judith Zaffirini".

Judith Zaffirini

Z/g2



SENATOR ROLAND GUTIERREZ

DISTRICT 19

The Honorable Jennifer M. Granholm
Secretary, U.S. Department of Energy
1000 Independence Ave, SW
Washington, DC 20024

September 26, 2023

Dear Secretary Granholm:

I am writing to express my support for the Guadalupe-Blanco River Authority's (GBRA) Dam Safety and Hydroelectricity Projects, which are being submitted for consideration under the 2023 Department of Energy Section 247 Maintaining and Enhancing Hydroelectricity Incentives Program.

GBRA will submit this request for federal assistance to fund critical infrastructure improvements at four key hydroelectric dams in the Guadalupe River Basin, namely Lake Dunlap, Lake McQueeney, Lake Placid and Meadow Lake. These dams were originally built between 1928 – 1932, have over extended their life span. The dire need for these improvements became evident in 2019 when Lake Dunlap suffered a catastrophic dam failure, leading to the rapid dewatering of the lake within 24 hours. The aftermath of this situation had lasting effects on our local and regional economies. Local businesses that relied on the lake's recreation experienced a decline in revenue.

The lack of funding for essential repairs has been the major contributing factor to the condition of these dams. Since these dams primarily serve hydroelectric purposes rather than flood control, securing state or federal funding for their maintenance has posed significant challenges for the river authority. In response to these pressing concerns, GBRA made the pivotal decision to temporarily dewater four lakes as part of a comprehensive initiative aimed at addressing the aging dam infrastructure and safeguarding the communities in the vicinity.

GBRA's commitment to our region extends far beyond energy generation, it directly impacts the well-being of our communities. GBRA delivers all the hydroelectric power generated in the Guadalupe River Basin to the Guadalupe Valley Electric Cooperative (GVEC), a large regional energy provider where 40% of its service area comprises Disadvantaged Communities (DACs).

Federal investment in this project would not only support critical infrastructure but also provide safety, environmental, and electric generation benefits to disadvantaged communities in South Central Texas. This initiative aligns with the Department of Energy's commitment to equitable development and sustainable energy solutions, offering a unique opportunity to grow economic vitality of the Guadalupe River Basin.

I strongly encourage you to consider GBRA's Dam Safety and Hydroelectricity Projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Roland Gutierrez".

Roland Gutierrez
State Senator



Roland.Gutierrez@Senate.Texas.Gov

CAPITOL OFFICE:
ROOM 3S.3
P.O. Box 12068
AUSTIN, TEXAS 78711
(512) 463-0119

COMMITTEES:
LOCAL GOVERNMENT
VETERANS

WATER, AGRICULTURE & RURAL AFFAIRS

Certification Regarding Lobbying

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Jacy Robbins
MLWCID Board

Michael Meskill
MLWCID Board

Joe Brent Hammond
MLWCID Board

Russell Rinn
MLWCID Board

Robert Raetzsch
MLWCID Board