

PUEBLO OF ISLETA IRRIGATION WATER SUPPLY INTERCONNECT PROJECT

US Department of Interior, Bureau of Reclamation

WaterSMART Drought Response Program: Drought Resiliency Projects for FY2024

Notice of Funding Opportunity No. R24AS00007

Funding Group II and Eligible Project Section C.4.1. Task A



PUEBLO OF  
ISLETA

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## Executive Summary

Date: November 7, 2023  
Applicant name: Pueblo of Isleta (Category A Applicant)  
Project Manager: Mr. Clint Lente  
Project Location: Pueblo of Isleta, Bernalillo and Valencia Counties, New Mexico

The Pueblo of Isleta is applying for a Bureau of Reclamation WaterSMART Drought Resiliency Project funding (Task A) for the construction of the Pueblo of Isleta Irrigation Water Supply Interconnect Project that will increase the options for water supply deliveries to irrigated lands along the Rio Grande. The Pueblo of Isleta is a Federally recognized Indian Tribe and a Category A Eligible Applicant. The project consists of a pump station, pipeline and related appurtenances that will transport water from drains into canals to serve irrigated land on the west side of the Rio Grande within the Pueblo of Isleta. The variable speed submersible pump will convey up to 20 cfs to serve approximately 1,500 acres of irrigated land. This project is required due to the ongoing Extreme Drought (October 10, 2023 U. S. Drought Monitor Summary) conditions in the Rio Grande basin including The Pueblo of Isleta. The project will salvage drainage water to supply irrigated land which has experienced drought conditions exacerbated by the limitations in the irrigation distribution system. The base flow of the drain when pumped into the canal will provide a reliable supplemental supply for these irrigated lands. All of the project facilities are located on Pueblo of Isleta land. No Federal land or facilities are involved.

The construction of this pump station will implement a drought mitigation measure identified in the Middle Rio Grande Conservancy District's June, 2019 Drought Contingency Plan.

Site investigations will begin upon receipt of notice of funding availability, which for the purposes of this Application, is assumed to be January 1, 2025. Design and permitting will begin upon receipt of the results of the initial site investigation (topographic survey and geotechnical investigation), which is assumed to be April, 2025. Construction contract documents will be prepared and request for bid released in the fall of 2025. Under this schedule, construction activities will begin January, 2026 and be completed within six months (June, 2026.)

The irrigated land to be served by this project is under the jurisdiction of The Pueblo of Isleta. Irrigation surface water supply is provided through facilities of the Middle Rio Grande Conservancy District (MRGCD) and diverted from the Rio Grande at the Angostura Diversion Dam.

The Atrisco Pump Station is located approximately 36 miles downstream of the Angostura Diversion Dam (Point of Diversion). The proposed project area is located at the end of the Albuquerque Division within the Pueblo's Acequia Madre District. The water delivery to this area is subject to a rotation schedule. There are about 1,500 acres of irrigated land that will benefit from a supplemental supply of irrigation water for forage crops, gardens and orchards.

The Project land is currently supplied with irrigation water by diversion from the Rio Grande and delivered through the MRGCD facilities. The MRGCD has State water rights under NMOSE file Nos. 620 and 1690. The natural flow of the Rio Grande available for diversion by MRGCD may be supplemented by release of native Rio Grande and San Juan-Chama Project water from storage. Storage of native Rio Grande water may be limited by Rio Grande Compact restrictions on reservoir storage and imported San Juan Chama Project water is subject to periodic shortages. As a result, the water supply is highly variable and is increasingly subject to an irrigation rotation schedule.

The MRGCD operates water measuring devices on the Butte Lateral and the Indian Ditch near the location where these canals cross the north boundary of the Pueblo. A summary of the provisional record of flow from these measuring stations over the October 2012 - October 2023 period is shown in Table 1. These are average annual values and do not reflect the variable nature of the supply.

Table 1. Estimated current water supply for project lands

<u>Location</u>	<u>District</u>	<u>Average Annual Discharge (acre-feet)</u>
Butte Lateral (BUTCN)	Acequia Madre	5,100
Indian Ditch (INDCN)	Acequia Madre	19,900

## **Project Location**

The Project is located in the Middle Rio Grande Valley within the exterior boundaries of The Pueblo of Isleta in central New Mexico. The Project location is summarized in Table 2.

Table 2. Project location description

<u>Project</u>	<u>County</u>	<u>Latitude</u>	<u>Longitude</u>
Atrisco Pump Station	Bernalillo	34° 56.7' N	106°41.1' W

The Atrisco Pump Station site is located in Bernalillo County approximately two miles north of the Isleta Village. Figure 1 is a map that shows the location of the project.

## **Project Description**

The Project is described as the design and construction of a pump station, a pipeline and related equipment to divert flow from the Atrisco Riverside Drain into the Indian Ditch and the Butte Lateral. The Atrisco Pump Station will divert and transport up to 20 cfs, 1,440 feet west to the Indian Ditch and up to 20 cfs an additional 2,850 feet further west to the Butte Lateral. The Project will salvage drainage water to supplement the surface water supply of the Pueblo irrigated lands.

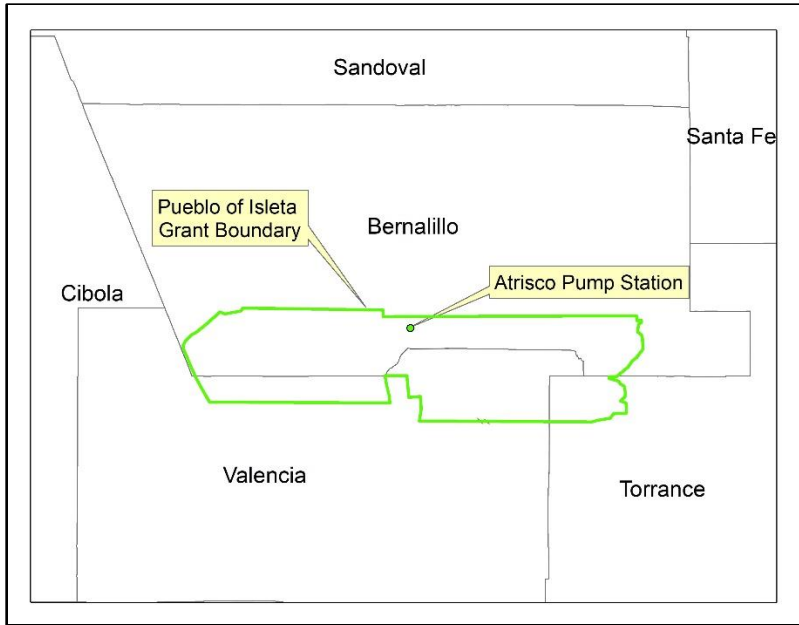


Figure 1. Project location map

The flow in the Atrisco Riverside Drain, which is the source of supply for the Atrisco Pump Station, is measured at a gage located about one mile downstream (south) of the pump station location. The record of flow at this location shows that the flow in the drain is greatest during times of high river stage, and lowest during the irrigation season. Base flow during the irrigation season is approximately 10-20 cfs, which will be used for the basis of design. A hydrograph of flow for the 2016-2020 period is shown in Figure 2.

The MRGCD operates stream gages on the Butte Lateral and the Indian Ditch at locations near the north Pueblo boundary. The discharge record indicates that the full supply of water in the Indian Ditch is approximately 50 cfs, and that the flow drops to below 20 cfs at times during the irrigation season. Similarly, the discharge record indicates that the full supply flow in the Butte Lateral is approximately 20 cfs, although flow at this location will drop to 5 cfs during the irrigation season. The Atrisco pump station will supplement the surface water flow in these two canals during times when flow is less than the downstream irrigation demand.

This proposal includes the installation of flow gages in the Indian Ditch and the Butte Lateral upstream of the location of where the pumped water is to be discharged into the two canals. The addition of these two new gages will increase the reliability of flow measurements and will be used in the pump unit's SCADA systems for a coordinated operation of the system.

The work includes site surveying, geotechnical investigation, and the design and construction of a pumping plant, delivery system and ancillary valves, vents, fittings and measurement equipment. Three phase power will be extended to the site from a nearby power line. Plans and specifications will be prepared by a registered professional engineer. Competitive sealed

bids will be solicited and a contract with qualified construction contractor will be entered into to perform the work, consistent with, 2 CFR Part 200 and the Pueblo’s procurement laws.

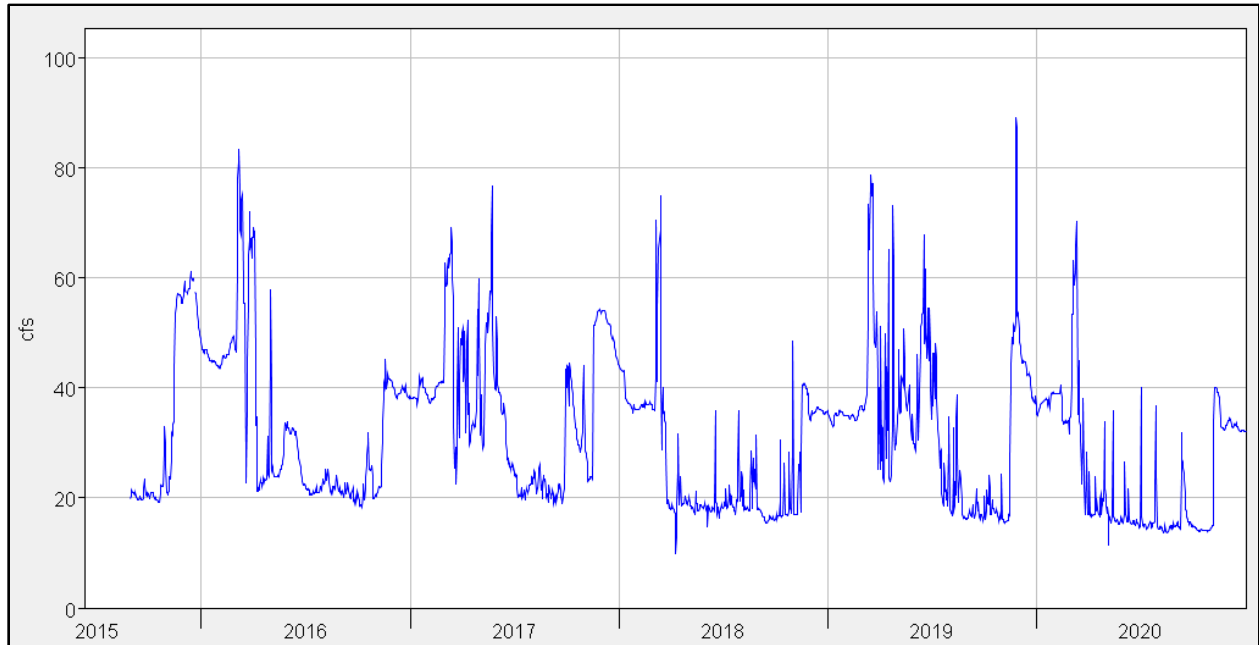


Figure 2. Hydrograph of flow in the Atrisco Riverside Drain (cfs)

The Atrisco Pump Station will be located on the west bank of the Atrisco Drain south of the north Pueblo Boundary (See Figure 3). Project components include drain channel modifications to stabilize the banks in the vicinity of the pump and create a forebay for the pump to access water in the drain. The structure design will allow for the by-pass drain high flows while maintaining water levels upstream within normal elevations. A 150 horsepower variable speed submersible pump delivering water into a 24-inch diameter steel pipe with a transition to PVC pipe will be installed, along with valves and a flow meter. The total pipeline length is approximately 4,290 feet. Three phase power will be extended to the site from an existing power line that runs along NM 314 approximately one-half mile west of the pumping plant. Electrical equipment and switches will be located adjacent to the pump.

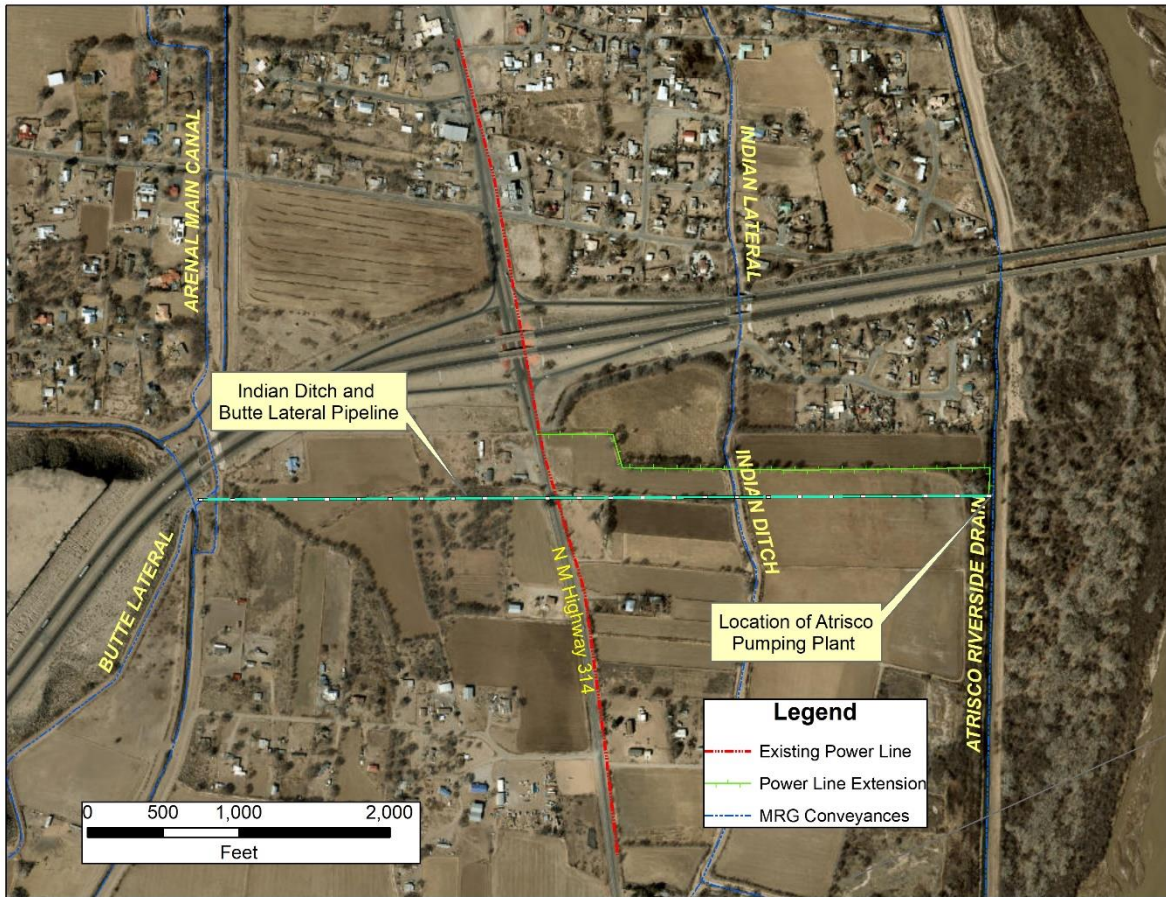


Figure 3. Vicinity Map of Atrisco Pump Station

### Performance Measures

The Interconnect Project will include the installation of flow meters in the proposed pipelines and irrigation canals. All water diverted from the drain into the pipeline will be recorded and reviewed by the Pueblo’s Natural Resources Department before the data are finalized. New flow gages installed in the Butte Lateral and the Indian Ditch will monitor surface water deliveries arriving at the sites. This data, which along with an evaluation of the current demand, will be used to determine the amount of water to be delivered by the pump. At the end of each year, records from all of the flow data will be compiled and included in the Pueblo Annual Irrigation Reports, which will identify the amounts of supplement supplies provided by the Interconnection Projects. WaterSMART grant funding will not be used for operation and maintenance of the measuring devices or pump.

## Response to Evaluation Criteria

### Evaluation Criterion A - Project Benefits (30 Points)

#### ***Sub-Criterion A1.a: Adds to Available Water Supplies***

- *How will the project build long-term resilience to drought? How many years will the project continue to provide benefits?*

The Pueblo of Isleta has been utilizing the water supply of the Rio Grande for irrigation purposes for centuries, and the Pueblo is constantly exploring alternative methods to expand access to available water supplies, especially during late irrigation season and prolonged drought conditions. This Project will allow the water supplies of the Rio Grande to be better utilized within the Pueblo of Isleta boundaries. The Project will improve long-term drought resilience by providing Pueblo water users access to a reliable supplemental source of water from the base flow of the riverside drain.

This Project will provide a supplemental water supply to Pueblo water users for the length of the infrastructure lifetime. The operating lifetime of the pump before overhaul is expected to be twenty years. The lifetime of the delivery infrastructure, including the pipeline, is expected to be seventy-five years.

- *What percentage of the total water supply does the additional water supply represent? How was this estimate calculated?*

The publicly available data on discharge in canals and drains used to plan this Project have not undergone rigorous QA/QC procedures, and the reliability of the data is uncertain. However, this is the only available data for use in the planning process. Based on discharge data from the Atrisco Drain, the Indian Ditch, and the Butte Lateral, it is estimated that the Atrisco Pump Station is capable of meeting approximately 15% of the average irrigation demand. This is based on the base flow of the Atrisco Drain (10 cfs, supply), the assumed full demand of the Indian Ditch (50 cfs), and the assumed full demand of the Butte Lateral (20 cfs). The project will be designed to deliver up to 20 cfs when that amount is available in the Atrisco Drain.

- *What is the estimated quantity of additional supply the project will provide and how was this estimate calculated? Provide this quantity in acre-feet per year as the average annual benefit over ten years.*

The estimated normal supply that could be provided by the Atrisco Pump Station is approximately 4,200 acre-feet per annum. This is based on the continuous operation of Atrisco Pump Station during the 213 day irrigation season between April 1 and October 31 and on an assumed flow in the Atrisco Drain of 10 cfs during the irrigations season. Actual operation of the project will be to supply water as needed to address acute shortages and take advantage of the available flow in the drain.



- *Provide a qualitative description of the degree/significance of the benefits associated with the additional water supplies.*

Water supplied by the Atrisco Pump Station could be a more significant portion of the total water supply required to irrigate lands on the Pueblo than the 15% described above, which is based on average conditions. The existing supply for Pueblo lands that would be served by the Atrisco Pump Station are delivered through MRGCD facilities, which include the Angostura Diversion, the Atrisco Feeder Canal, the Atrisco Siphon, and the Arenal Canal. The Atrisco Project lands are located at the end of the MRGCD Albuquerque Division, a long way from the point of diversion. Any operational issues in this system or an administrative inability to deliver water through these works would reduce or eliminate the water supply to the Pueblo land. In this instance, it is possible that the only supply of available water would be provided by the Atrisco Pumping Station.

### ***Sub-criterion A2: Environmental & Other Benefits***

**Sub-Criterion A2.a: Climate Change** • *In addition to drought resiliency measures, does the proposed project include other natural hazard risk reductions for hazards such as wildfires or floods?*

This proposed project will not provide any other natural hazard risk reductions.

- *Will the proposed project establish and use a renewable energy source?*

The proposed project will not initially rely on the use of a renewable energy source to power the project pump. The use of a renewable energy source (solar, wind or some form of carbon offsets) will be investigated during the design phase.

- *Will the proposed project reduce greenhouse gas emissions by sequestering carbon in soils, grasses, trees, and other vegetation?*

Indirect benefits of the project toward the offset of greenhouse gas emissions are gained from increased vegetation and reduction of fallow land resulting from more reliable water supply.

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

Recycled or natural materials may be used in development of the project and will be explored in more detail during the project design. A life-cycle analysis of the project infrastructure will help with the evaluation of the use of natural material and design alternatives.

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

Best management practices that will reduce the impact of construction activities on air and water quality will be identified in the design process and implemented through the contract documents by the construction contractor.

- *Does the proposed project have a conservation or management component that will promote healthy lands and soils or serve to protect water supplies and its associated uses?*

The development and operation of the project will reduce fallow land, help stabilize soil and reduce erosion of top soils.

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

None identified.

### **Sub-Criterion A2.b: Environmental Benefits**

- *Does the project seek to improve ecological climate change resiliency of a wetland, river, or stream to benefit to wildlife, fisheries, or habitats? Do these benefits support an endangered or threatened species?*

There are no planned, direct environmental benefits or adverse impacts to wildlife habitat anticipated from implementation of this project. The additional water supply in the Indian Ditch and the Butte Lateral would provide incidental environmental benefits to the aquatic and riparian species and their habitats along the canals.

- *What are the types and quantities of environmental benefits provided, such as the types of species and the numbers benefited, acreage of habitat improved, restored, or protected, or the amount of additional stream flow added? How were these benefits calculated?*

There are no planned, direct environmental benefits or adverse impacts to wildlife habitat anticipated from implementation of this project.

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

There are no known benefits or adverse impacts to threatened or endangered species that would result from construction and operation of this Project.

### **Sub-Criterion A2.c: Other Benefits**

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

Construction and operation of this project will have no impact on New Mexico's obligation or actual delivery of water to Texas under the Rio Grande Compact.

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

This Project is intended to provide direct benefit to Pueblo of Isleta irrigators. Irrigation return flows could benefit downstream, non-Pueblo irrigators. Additionally, there are indirect

benefits that may accrue to commercial interests, such as seed, fertilizer and farm implement dealers that would be realized due to the development of a more reliable irrigation water supply.

- *Will the project benefit a larger initiative to address sustainability?*

This Project is not part of any larger, specific initiative that would address sustainability. This is a water conservation project with inherent sustainability features.

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

Construction and operation of the Atrisco Pump Station would help alleviate water shortages which in turn would reduce the tensions associated with sharing water supplies under a water delivery rotation schedule and during prolonged drought conditions.

#### Evaluation Criterion B - Planning and Preparedness (20 Points)

**Drought Resiliency Projects Tasks A-C:** For purposes of evaluating this criterion, please address the following:

- *Explain how the applicable plan addresses drought. Proposals that reference plans clearly intended to address drought will receive the most points under this criterion.*

Drainage interconnect projects such as proposed herein, are specifically identified in the June, 2019 Middle Rio Grande Conservancy District's Drought Contingency Plan (DCP). This plan specifically identifies the improvement of MRGCD operations and infrastructure as a long term drought preparedness action. Included in this action is the implementation of better connections from drains to supply canals for water reuse.

*o Does the drought plan contain drought focused elements (e.g., a system for monitoring drought, drought projections that consider climate change, identification of drought mitigation projects, drought response actions, and an operational and administrative framework)?*

The MRGCD's DCP monitors drought conditions utilizing a modified version of the US Department of Agriculture's Surface Water Supply Index (SWSI). This modified SWSI is used to calculate drought severity by accounting for current surface water supplies in the middle Rio Grande with an added temperature component.

The DCP includes an inventory of resources (e.g., infrastructure) that are critical to the MRGCD, the risks that are posed by drought to the identified resources, and the factors that contribute to those risks. This inventory utilized projections of future conditions to identify potential risks to MRGCD resources from drought. The effects of climate change were evaluated in the Plan by using various climate scenarios for the first half and the second half of the 21st century, but for planning and mitigation purposes the DCP focused on the period of 2000-2049.

The MRGCD DCP identifies, evaluates, and prioritizes mitigation actions and activities designed to mitigate the risks posed by drought and to build long-term resiliency to drought. The developed mitigation measures are actions, programs, and strategies implemented over time to address risks and impacts of droughts as they occur.

The MRGCD DCP identifies, evaluates, and prioritizes response actions that the MRGCD can implement during a drought to mitigate the impacts. Each specific response action developed is tied to triggers for the specified drought stages. These actions are utilized to manage the limited water supply and decrease the severity of immediate impacts. The developed response actions can be quickly implemented and provide rapid benefits to the MRGCD in drought scenarios.

The MRGCD's DCP also includes operational and administrative framework that identifies who is responsible for undertaking the actions necessary to implement each element of the DCP, including communication with the public about those actions. The DCP identifies the roles, responsibilities and procedures necessary to conduct drought monitoring, initiate response actions (including emergency response actions), initiate mitigation actions and update the plan.

*o Describe how the drought plan includes consideration of climate change impacts to water resources or drought.*

The DCP evaluates and considers the effects of climate change for the 2000 to 2049 period. Multi-model climate projection ensembles are used in the analysis of the possible effects of climate change in the middle Rio Grande Valley. The applications of more than one model to evaluate possible climate change scenarios are used due to the intrinsic uncertainties in climate predictions that arise from model structure, initial conditions, or model parameterizations. The DCP finds that changes to such climate characteristics as temperature, snow water equivalent, evaporation, streamflow and runoff may be experienced in the future.

- *When was the plan developed and how often is it updated?*

The development of the MRGCD's DCP began in late 2016 when the initial meeting of the Drought Evaluation Team was held on November 4, 2016. The MRGCD Board of Directors adopted the DCP at the District Board meeting held October 14, 2019. The DCP is updated by MRGCD in March of the odd numbered years and submitted to the Board of Directors for their approval.

- *Was the drought plan developed through a collaborative process?*

The MRGCD DCP identified key stakeholders who would serve as member of a Drought Evaluation Team. Thirty entities were identified and invited to participate in the development of the DCP. Team members met three times during the development of the DCP. Meetings were held November 4, 2016, January 25, 2017 and August 10, 2019. Meeting agendas and meeting notes were prepared and are included in the DCP.

*o Describe who was involved in preparing the plan and whether the plan was prepared with input from stakeholders with diverse interests (e.g., water, land, or forest management interests; and agricultural, municipal, Tribal, environmental, and recreation uses)? Describe the process used for interested stakeholders to provide input during the development of the plan.*

Entities who attended the meetings and provided input to the development of the DCP included Tribes, individuals representing interests in agriculture, private business, municipal water users, conservation groups, not for profit environmental protection groups, and public and private scientific groups.

*o If the plan was prepared by an entity other than the applicant describe whether and how the applicant was involved in the development of the plan. If the applicant was not involved in the development, explain why.*

The Pueblo of Isleta was involved in the development of the DCP that was prepared by the MRGCD. The Pueblo attended meetings of the Drought Evaluation Team and provided input into the development of the DCP.

- Describe how your proposed drought resiliency project is supported by an existing drought plan.*

The Pueblo of Isleta Irrigation Water Supply Interconnect Project is specifically identified in the MRGCD DCP (pump to canal from Atrisco Riverside Drain) The DCP recognizes that the best way to handle drought limitations is to systematically develop sustainable water control measures, including infrastructure improvements, such as the construction of connections from drains to supply canals for water reuse. Infrastructure improvement recommendations are organized around the anticipated 10%, 25% and 40% reduction in supply. The DCP estimates the water supply available based on the current or forecast flow at the USGS gaging station Rio Grande at Otowi Bridge, NM, as well as the available storage in upstream reservoirs. The supply determination also employs the use of weighted coefficients which represent the approximate contributions of each parameter of the surface water supply.

*o Does the drought plan identify the proposed project as a potential mitigation or response action? How is the proposed project prioritized in the drought plan?*

The DCP recommends implementation of the plans to increase connections from drains to canals during years when a 25% reduction in supply is anticipated. The drain to canal interconnect projects are the principal mitigation measures to be implemented during years when a 25% reduction in supply is anticipated.

*o Does the proposed project implement a goal or need identified in the drought plan? Is the supported goal or need prioritized within the plan?*

The Project would satisfy one of the DCP goals of maintaining system operation performance and mitigate the impacts to water users during periods of a reduction in supply. The Project infrastructure improvement measures identified in the DCP are not prioritized but are set up to address adequacy of current supply and efficiency in water delivery.

- *Attach relevant sections of the plan that are referenced in the application, as an appendix to your application. These pages will be included in the total 125-page count for the application.*

Appendix B includes pages A7-12 and A7-33 of the MRGCD DCP where the projects are identified and described.

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

- *Describe recent, existing, or potential drought or water scarcity conditions in the project area.*

Recent U. S. Drought Monitor (October 17, 2023) shows that all of the Rio Grande basin in New Mexico is experiencing moderate to severe drought conditions. Drought conditions have increased in severity over the last several years. The October 19, 2023 U. S. Seasonal Drought Outlook for the October 19, 2023 to January 31, 2024 period indicates that drought will persist in the Rio Grande Basin. The USDA October 8, 2023 Topsoil Moisture Report states that 82% of the land in New Mexico is experiencing very dry (>50%) topsoil moisture conditions. Conditions are anticipated to deteriorate further.

<https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM>

*o Is the project in an area that is currently suffering from drought, or which has recently suffered from drought or water scarcity? Please describe existing conditions, including when and the period of time that the area has experienced drought or water scarcity conditions. Include information to describe the frequency, duration, and severity of current or recent conditions. You may also provide information relating to historical conditions. Please provide supporting documentation (e.g., Drought Monitor, droughtmonitor.unl.edu).*

A modified Drought Index was developed for use in the MRGCD Drought Contingency Plan. This modified Index was calculated for the period of January 1, 1953 to December 1, 2018. The DCP shows that over this period there have been 97 months where extremely or severely dry conditions have been identified by the Index. Calculations show that there have been five identified periods lasting six months or more of severely dry or extremely dry conditions, with an average duration of 13.6 months and the longest lasted 24 months. Slightly wet to slightly dry classification occurs 56.3% of the time, extremely wet to moderately wet conditions occur 16.7% of the time, and moderately dry to extremely dry conditions occur 27% of the time.

*o Describe any projected increases to the severity or duration of drought or water scarcity in the project area resulting from changes to water supply availability and climate change.*

*Provide support for your response (e.g., reference a recent climate informed analysis, if available).*

A state task force of stakeholders convened from June to November, 2022 and prepared their Report of the New Mexico Water Policy And Infrastructure Task Force in December, 2022. This Report included findings of an interdisciplinary team of leading New Mexico scientists, which include:

- The climate will continue to warm over the next 50 years without a likely increase in precipitation, leading to greater statewide aridity;
- Hydrological modeling indicates declines in both runoff and recharge going forward, amounting to 3 to 5% per decade for both quantities;
- Significant decreases in runoff and recharge seem very likely.

<https://nmwater.org/files/New-Mexico-Water-Policy-and-Infrastructure-task-Force-Final-Report-EDIT-7-5-2023.pdf>

*• What are the ongoing or potential drought or water scarcity impacts to specific sectors in the project area if no action is taken (e.g., impacts to agriculture, environment, hydropower, recreation, tourism, forestry, etc.), and how severe are those impacts? Impacts should be quantified and documented to the extent possible. For example, impacts could include, but are not limited to:*

Water scarcity would have the following impacts:

- Increase in the abundance and magnitude of fires in the Rio Grande Bosque;
- Irrigation allotments decrease triggering shortage sharing of irrigation water;
- Livestock suffers, herds are sold and feed costs increase;
- Sections of the Rio Grande dry up;
- Wildlife habitat and migration patterns are altered.

*o Whether there are public health concerns or social concerns associated with current or potential conditions (e.g., water quality concerns including past or potential violations of drinking water standards, increased risk of wildfire, or past or potential shortages of drinking water supplies? Does the community have another water source available to them if their water service is interrupted?).*

Not applicable to this Project.

*o Whether there are ongoing or potential environmental impacts (e.g., impacts to endangered, threatened or candidate species or habitat).*

There are no known ongoing or potential environmental impacts to wildlife or their habitat associated with this Project.

*o Whether there are local or economic losses associated with current water conditions that are ongoing, occurred in the past, or could occur in the future (e.g., business, agriculture, reduced real estate values).*

The implementation of this project would reduce economic losses to farmers and the local economy dependent on the farmers due to an improved water supply.

*o Whether there are other water-related impacts not identified above (e.g., tensions over water that could result in a water-related crisis or conflict).*

Seasonal tension and varying degree of conflict among Pueblo, MRGCD and Reclamation during periods of water supply shortages would be alleviated by construction of this project.

#### Evaluation Criterion D - Presidential and DOI Priorities (15 points)

Describe, in detail, how the proposed project supports a priority(ies) below. Note: Domestic Water Supply Projects (Task D) must address the criteria below to explain how the project will benefits Tribes and/or disadvantaged communities.

##### **E.1.4.1. Disadvantaged or Underserved Communities**

E.O. 14008 and E.O. 13985 affirm the advancement of environmental justice and equity for all through the development and funding of programs to invest in disadvantaged or underserved communities. For the purposes of this criterion, Tribes and insular areas (American Samoa, Guam, the Northern Mariana Islands, or the Virgin Islands) are considered disadvantaged.

*• Please use the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool, available online at Explore the map – Climate & Economic Justice Screening Tool (<https://screeningtool.geoplatform.gov>) to identify the disadvantaged communities that will benefit from your project.*

The White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool shows that the Pueblo of Isleta community is considered disadvantaged.

*• If applicable, describe how the proposed project will serve or benefit a disadvantaged or underserved community, identified using the tool described above. 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 disadvantages or underserved community?*

The Project would benefit land located within the exterior boundaries of the Pueblo of Isleta and Bernalillo and Valencia Counties, NM. The White House Council on Environmental Quality's Interactive Climate and Economic Justice Screening Tool shows that the irrigated lands that would benefit from this Project are located in tracts that are considered disadvantaged because it meets more than one burden threshold and the associated socioeconomic threshold. All of the Project lands are lands of a Federally Recognized Tribe and are also considered disadvantaged.



Implementation of this Project will benefit the Pueblo Community by adding new water supplies leading to economic stability and future economic growth opportunities.

#### **E.1.4.2. Tribal Benefits**

Points will be awarded based on the extent to which the Project will honor the Federal government's commitments to Tribal Nations.

- *Does the proposed project directly serve and/or benefit a Tribe? Benefits can include, but are not limited to, public health and safety by addressing water quality, new water supplies, economic growth opportunities, or improving water management.*

The Project would provide direct benefits to The Pueblo of Isleta by providing new water supplies to Pueblo irrigated land developed from the drain to canal interconnect.

- *Does the proposed project support Reclamation's Tribal trust responsibilities or a Reclamation activity with a Tribe?*

Yes.

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

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. ***Please also see Section B.2. regarding eligible lengths of projects for this NOFO.***

- *Describe the implementation plan of the proposed project. Please 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: design, environmental and cultural resources compliance, permitting, construction/installation.*

The Project schedule is shown in Table 3 as a tabulation of the anticipated work tasks, their start and end dates. A graphical depiction of the timeline is located in Appendix A.

Table 3. Pueblo of Isleta Atrisco Pump Station project development schedule

Project Task or Milestone	Start Date	Completion Date
<b>Project Administration</b>		
Submit grant application	November 7, 2023	October 31, 2023
Contract award and funding available	January 1, 2025	January 1, 2025
Project Administration	January 1, 2025	September 30, 2026
Project complete, contract closeout	September 30, 2026	September 30, 2026
<b>Engineering and Design</b>		
Site survey and geotechnical investigation	January 1, 2025	March 30, 2025
Design, prepare plans and specifications	April 1, 2025	September 30, 2025
Permitting, archeological and environmental review	April 1, 2025	September 30, 2025
<b>Project Construction</b>		
Issue request for bids	November 1, 2025	November 1, 2025
Issue Notice to proceed with construction	January 1, 2026	January 1, 2026
Project construction	January 1, 2026	June 30, 2026
Final Inspection	July 31, 2026	July 31, 2026

• Describe any permits or approvals that will be required (e.g., water rights, water quality, stormwater, or other regulatory clearances). Include information on permits or approvals already obtained. For those permits and approvals that need to be obtained, describe the process, including estimated timelines for obtaining such permits and approvals.

A New Mexico Department of Transportation permit will be required to cross or access highway right-of-way where the Atrisco Pump Station pipeline crosses NM Highway 314. In addition, a license may be required to install the Project works in MRGCD easements for the Atrisco Pump Station. It is anticipated that these permits will be obtained during the design process and will be completed by the time of the start of construction in January, 2026

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

No detailed engineering or design work has been performed in support of this Project.

• Describe any land purchases that must occur before the project can be implemented.

No land purchases are required for the construction or operation of the Project.

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

None

**Evaluation Criterion F - Nexus to Reclamation (5 points)**

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?*

Yes, the Applicant receives water from the San Juan-Chama Project under the contract between the Bureau of Reclamation and the Middle Rio Grande Conservancy District.

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

Yes, the Project will benefit land of the Middle Rio Grande Project.

- *Is the applicant a Tribe?*

Yes, the Applicant is The Pueblo of Isleta which is a Federally recognized Indian Tribe.

#### Evaluation Criterion G - Stakeholder Support for Proposed Project (5 Points)

- *Describe the level of stakeholder support for the proposed project. Are letters of support from stakeholders provided? Are any stakeholders providing support for the project through cost-share contributions or through other types of contributions to the project?*

The Pueblo of Isleta Tribal Council Adopted Resolution No. 2022-075 in support of this Grant Application. A copy of this Resolution is included in Appendix C. The Pueblo will also contribute in-kind services necessary for the implementation of this project.

- *Explain whether the project is supported by a diverse set of stakeholders, as appropriate, given the types of interested stakeholders within the project area and the scale, type, and complexity of the proposed project. For example, is the project supported by entities representing agricultural, municipal, Tribal, environmental, or recreation uses?*

The sole beneficiaries and stakeholders of this project are Pueblo members who will benefit from the increase in supply of water delivered to their lands. See Pueblo of Isleta Resolution No. 2022-075 in Appendix C.

#### H. Other Information Environmental and Cultural Resources Considerations

The Pueblo of Isleta submits the following responses to questions and provides information about the environmental or cultural resource considerations.

- *Will the proposed 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.*

Construction activities include the construction of a pumping plant and the installation of buried irrigation pipeline. Earthwork activities may result in temporary production of dust. The removal of some riparian vegetation (including non-native species) near the pump site where the pipeline leaves the pumping plant will also be required. Most of the construction activities will take place in or adjacent to irrigated fields. These impacts will be mitigated by controlling dust production with water and restoration of the site with native vegetation, where required.

- *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 Southwestern willow flycatcher and the Rio Grande silvery minnow are known to be found in the Middle Rio Grande Valley. The impact of the project construction or operation on these species, if any, is not known but the work can be accomplished in a manner that will not affect the species.

- *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 proposed project may have.*

The Project is adjacent to the Rio Grande, which a “Waters of the United States.” The construction or operation of the project is not located in the channel of the Rio Grande and should not have any impact on the Rio Grande.

- *When was the water delivery system constructed?*

The existing water delivery system, which will receive water from the Atrisco Pumping Station, is operated by the MRGCD and may have been rehabilitated by Reclamation as part of the Middle Rio Grande Project during the 1950’s.

- *Will the proposed 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 have no impact on existing headgates or flumes. The banks of the irrigation canals may be disturbed as necessary for installation of the delivery pipeline.

- *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.*

There are no buildings, structures, or features in the irrigation district that are known to be listed or eligible for listing on the National Register of Historic Places

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

There are no known archaeological sites in the vicinity of the proposed project.

- *Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?*

There will be no high and adverse impacts to low income or minority populations in the vicinity of the project.

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

There will be no adverse impacts to tribal lands and the project will not limit use or access to Pueblo sacred sites.

- *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?*

The control of the spread of noxious weeds will be addressed in the contract documents by requiring that construction vehicle wheels or tracks are kept clean and by controlling the importation of noxious weed in the construction materials.

### **Project Budget**

Bureau of Reclamation funding will be utilized to pay for important elements of the Pueblo of Isleta Water Supply Interconnect Project. Items to be covered under the WaterSMART Drought Resiliency Grant include construction of the Atrisco Pump Station project. In addition to costs associated with construction, the grant funding will also be used to cover engineering design and project administration costs.

The total estimated cost of the project is \$1,434,208.00, including project administration, engineering and construction. The major project budget items are summarized in Table 4.

Table 4. Project budget cost summary

Budget Item	FY 2024	FY 2025	FY 2026	TOTAL
Administration (In-kind):	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 75,000.00
Engineering:	\$ 52,736.00	\$ 52,736.00	\$ 52,736.00	\$ 158,208.00
Construction:	\$ -	\$ 600,500.00	\$ 600,500.00	\$ 1,201,000.00
			TOTAL:	1,434,208.00

The Pueblo of Isleta requests \$679,604.00 in WaterSMART grant funding. The Pueblo will request an additional \$679,604.00 in cost share contributions from a P. L. 93-638 Contract Grant.

The Pueblo will provide an in-kind contribution of \$75,000 for project and contract administration. See Table 5.

Table 5. Summary of funding sources

Source of Funding	Amount (\$)
<b>Non-Federal:</b>	
Pueblo of Isleta (in-kind):	\$75,000*
<b>Federal:</b>	
WaterSmart Drought Resiliency (50%)	\$679,604.00
P. L. 93-638 Contract Grant (50%)	\$679,604.00
<b>Requested Reclamation (WaterSMART) Funding:</b>	\$679,604.00

Construction work would be performed by a qualified construction contractor. Mobilization of construction equipment, pollution control, dewatering activities and construction surveys will be crucial to the initial organization of the project and will be used to prepare the site for construction activities. Funding for this Project will cover the cost to construct a concrete or masonry intake structure in the existing drain to allow salvage water to be pumped from this forebay area into further reaches of the Pueblo of Isleta irrigation system. The cost of the submersible pump, pipe material and fittings and installation to construct pipeline to move water from the Atrisco will be paid with Federal funding. All associated labor, earthwork, and bedding material for the proposed pipeline will utilize Federal funding opportunities. Additionally, the construction of a pump house and all necessary SCADA and security features to operate and monitor equipment will be purchased and installed through the WaterSMART Grant and the P. L. 93-638 grant. The engineering and construction costs are to be divided evenly between the WaterSMART Drought Resiliency Grant and the P. L. 93-638 Contract Grant.

Table 6 shown below itemize budget estimates for the tasks associated with construction of the Atrisco Pump Station.

Table 6. Atrisco Pump Station project construction budget estimate

DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT
Mobilization, demobilization	LS	1	\$85,000	\$85,000
Pollution control	LS	1	\$5,000	\$5,000
Environmental review	LS	1	\$5,000	\$5,000
Construction surveys	LS	1	\$15,000	\$15,000
Control of water during construction	LS	1	\$17,500	\$17,500
Construct pump intake structure	CY	14	\$3,250	\$45,500
Traffic control plan / pavement cut permit	LS	1	\$25,000	\$25,000
Pipeline trench excavation	CY	1910	\$50	\$95,500
Pipeline trench compacted backfill	CY	1420	\$45	\$63,900
Pipe bedding material	CY	240	\$240	\$57,600
Furnish and install 24" steel pipe	LF	100	\$180	\$18,000
Furnish and install 24" PVC pipe	LF	4190	\$75	\$314,250
Pipe fittings, valves and appurtenances	LS	1	\$125,000	\$125,000
Furnish 150 HP submersible pump	LS	1	\$85,000	\$85,000
Construct pumphouse, SCADA and security	LS	1	\$45,000	\$45,000
Furnish and install water meters	EA	3	\$17,500	\$52,500
Extension of three phase power line	LS	1	\$75,000	\$75,000
			SUBTOTAL:	\$1,130,000
			NMGRT (6.25%):	\$71,000
			GRAND TOTAL:	\$1,201,000

Unit price construction costs were estimated using average unit bid prices published by the New Mexico Department of Transportation for the 2022 and 2023 fiscal years. Direct quotes were also solicited from local vendors for unit costs of furnishing construction materials. These prices were increased by 10% to account for changes in market value for an anticipated construction period in the year 2025.

Engineering and design services for the Isleta Water Supply Interconnect Project shall also be covered through the WaterSMART Grant and a P. L. 93-638 Contract Grant. Topographic data collection and surveying will be completed under subcontract to map the existing surface conditions (topography and land use) at the project site and aid in the design of the project. Geotechnical investigations will also be completed under subcontract with a licensed geotechnical engineer to analyze subsurface conditions at the project for use in the design of the foundation and trenching for the proposed pipeline. All data collected will be utilized to prepare construction drawings and specifications for the construction of the Interconnect Project. Upon completion of

the final construction drawings, engineering services for soliciting construction bids, selecting a qualified construction contractor, and construction inspections will be necessary. Upon completion of construction activities, record drawings and a final report will be completed by the engineer and submitted to The Pueblo of Isleta.

Table 7 summarizes itemized costs of engineering services for the design of the Isleta Water Supply Interconnect Project.

Table 7. Atrisco Pump Station project engineering budget estimate

Task no.	Task Description	Engineering Labor	Travel Expenses	Equipment/Supplies	Subcontract	Total Cost
1	Engineering Services Management	\$13,942	\$2,250			\$16,192
2	Topographic data collection and review of existing data	\$3,642	\$75	\$1,500	\$15,000	\$20,217
3	Geotechnical investigations	\$1,820	\$75		\$25,000	\$26,895
4	Hydraulic analysis, pump selection, and engineering design	\$15,483	\$0			\$15,483
5	Prepare draft construction drawings and specifications	\$19,217	\$0	\$450		\$19,667
6	Prepare final drawings and specifications	\$12,625	\$0			\$12,625
7	Solicit bids, and construction oversight	\$20,427	\$2,600			\$23,027
8	Prepare Record Drawings	\$12,128	\$0			\$12,128
					Subtotal:	\$146,235
					NMGRT (@ 8.1875%)	\$11,973
					GRAND TOTAL:	\$158,208



## APPENDIX C – PUEBLO TRIBAL COUNCIL RESOLUTION

TRIBAL COUNCIL OFFICE



PHONE: 505-869-9746

FAX: 505-869-5276

### PUEBLO OF ISLETA

P.O. BOX 1270  
ISLETA, NM 87022

#### PUEBLO OF ISLETA

#### Resolution No. 2022-075

#### Approving the Applications for Funding for Irrigation Infrastructure Improvements Under Federal and State Grant Programs

The following resolution was passed at a duly called meeting of the Tribal Council of the Pueblo of Isleta:

**WHEREAS**, the Pueblo of Isleta is a federally recognized Indian tribe with a written Constitution adopted pursuant to the Indian Reorganization Act and with inherent powers of self-government;

**WHEREAS**, Article V, Section 2(c), of the Pueblo of Isleta Constitution authorizes the Tribal Council to negotiate and enter into agreements with the Federal Government;

**WHEREAS**, the Pueblo of Isleta has over six thousand acres of historically irrigated agricultural lands and an irrigation infrastructure system on its lands that includes many miles of irrigation canals and ditches, some of which are operated and maintained by the Pueblo and its members and others of which are operated and maintained by the Middle Rio Grande Conservancy District (MRGCD) and deliver water to both Pueblo and non-Pueblo members;

**WHEREAS**, much of the Pueblo's irrigation infrastructure system that serves Pueblo lands is in disrepair and in need of improvements to facilitate the effective conveyance and delivery of water;

**WHEREAS**, the current condition of much of the Pueblo's irrigation infrastructure system requires Pueblo farmers to expend many unnecessary hours to irrigate their fields, prevents other Pueblo farmers from irrigating altogether, and results in less water for use on Pueblo lands due to water loss through system leakage and seepage;

APPENDIX C – PUEBLO TRIBAL COUNCIL RESOLUTION (Page 2)

**WHEREAS**, the cost to complete necessary improvements of the Pueblo’s irrigation infrastructure system, including extensive concrete lining or piping of canals and ditches, is estimated to be in the tens of millions of dollars;

**WHEREAS**, the United States (US) Department of Interior, Bureau of Reclamation’s WaterSMART Grants program offers annual funding opportunities that provide “financial assistance to support projects that result in quantifiable and sustained water savings,” including “canal lining/piping;”

**WHEREAS**, the US Department of Agriculture, Natural Resources Conservation Service (NRCS) offers various grant funding opportunities through programs such as the Environmental Quality Incentives Program (EQIP), which provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits such as conserved ground and surface water;

**WHEREAS**, the State of New Mexico’s (State) Water Trust Board provides grant funding from the Water Trust Fund for a variety of water projects statewide; and

**WHEREAS**, it is in the best interest of the Pueblo and its members to leverage Federal and state grant funds from the various US Departments and from the State for the improvement of the portions of the Pueblo’s irrigation infrastructure system that primarily conveys and/or delivers water for the benefit of Pueblo lands.


**NOW THEREFORE, BE IT RESOLVED** that the Tribal Council hereby authorizes the submission of applications on an annual basis to the WaterSMART grants program as well as other Federal and State grant programs for funding to improve the portions of the Pueblo’s irrigation infrastructure system that primarily conveys and/or delivers water for the benefit of Pueblo lands;

**BE IT FURTHER RESOLVED** that the Governor is authorized to do all that is necessary to effectuate the intent of this resolution.

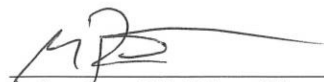
**CERTIFICATION**

We, the undersigned officials of the Pueblo of Isleta, hereby certify that the foregoing Resolution was duly adopted by the Pueblo of Isleta Tribal Council at a regularly meeting held on the 21st day of July, 2022, with a quorum present, with 5 voting for, 0 opposing, and 0 abstaining.

  
\_\_\_\_\_  
Charlene F. Seidl, Tribal Council Vice-President

  
\_\_\_\_\_  
Vernon B. Abeita, Governor

**ATTEST:**

  
\_\_\_\_\_  
Rodney Jones Tribal Council Secretary