

**MIDDLE RIO GRANDE CONSERVANCY  
DISTRICT**

**Feeder No. 3 –  
Irrigation Efficiency  
and Strategic Outfall  
Pump Station**

**WaterSMART: Drought Resiliency Project Grants for FY 2024**

Funding Opportunity Announcement: R24AS00007  
Tuesday, November 7<sup>th</sup>, 2023

**Applicant**

Middle Rio Grande Conservancy District  
1931 Second Street, SW  
Albuquerque, NM 87103

**Project Manager**

Jason M. Casuga, P.E.  
CEO and Chief Engineer  
Middle Rio Grande Conservancy District  
[jason@mrgcd.com](mailto:jason@mrgcd.com)  
(505) 247-0234



Executive Summary.....	3
<b>Background Data</b> .....	4
<b>General Description of Area to be Addressed</b> .....	5
Sources of water supply.....	5
Total quantity of water supply managed and supplied.....	5
Water rights involved.....	5
Current water uses.....	6
Number of water users served.....	6
Major crops.....	6
Water delivery or distribution system.....	6
Past Working Relationships with Reclamation.....	6
Project Location.....	7
Technical Project Description.....	8
Evaluation Criteria.....	11
<b>Criterion A -- Project Benefits</b> .....	11
Sub-criterion A1a: Adds to Available Water Supplies.....	11
Sub-criterion A1b: Water Better Managed.....	12
Sub-criterion A2a: Climate Change.....	13
Sub-criterion A2b: Environmental Benefits.....	14
Sub-criterion A2c: Other Benefits.....	14
<b>Criterion B -- Planning and Preparedness</b> .....	15
<b>Criterion C -- Severity of Actual or Potential Drought or Water Scarcity Impacts to be Addressed by the Project</b> .....	16
<b>Criterion D -- Presidential and DOI Priorities</b> .....	19
<b>Criterion E -- Readiness to Proceed</b> .....	20
Environmental and Cultural Resources Compliance.....	21
Required Permits or Approvals.....	23
Overlap or Duplication of Effort Statement.....	23
Conflict of Interest Disclosure Statement.....	23
<b>Criterion F -- Nexus to Reclamation</b> .....	23
<b>Criterion G -- Stakeholder Support for Proposed Project</b> .....	24
Project Budget.....	25

## Executive Summary

The Middle Rio Grande Conservancy District (District), a special district of the State of New Mexico, is seeking funding to address variable water supply conditions in the Middle Rio Grande Valley as persistent drought continues to create variable hydrology in the basin. The District's primary mission is to operate, maintain, and manage irrigation, drainage, and river flood control in the region. MRGCD intends to build a pump station at Feeder No 3 which transered works non-federal water supply canal, situated on District land in Valencia County. This station will supplement irrigation flows with drain water which is comprised of accreted groundwater from the Rio Grande and return flows from upstream irrigation. The estimated total project cost is \$5,000,000, and we are seeking \$2,500,000 under the WaterSMART Opportunity #R24AS00007 Task A. The District is fully committed to providing the required 50% match, totaling \$2,500,000. This pump station will increase the conveyance efficiency of water to approximately 3,300-4,500 acres of farmland in southern Valencia County. It will enhance canal water surface elevations, increase the total system volume, and reduce supply variability. These improvements will result in more efficient water scheduling and application, and generate a System Conservation benefit of approximately 6,500 acre-feet annually. This project is consistent with the MRGCD's goals and objectives as found in our Drought Contingency Plan.

### Environmental Impact:

Beyond these primary irrigation benefits, our project provides secondary and tertiary opportunities to benefit the river. The pump station will commit a portion of the water conserved through more efficient irrigation back to the river via the Feeder 3 Wasteway. By supporting our project, you will play a vital role in enhancing water management in our region, benefiting local farmers and the endangered species while contributing to long-term water sustainability.

Thank you for your consideration.

Date of Submission:	November 7, 2023
Applicant Information:	Middle Rio Grande Conservancy District Albuquerque, NM Jurisdiction in Sandoval, Bernalillo, Valencia, and Socorro Counties
Eligibility:	Category A – Irrigation district with water delivery authority
Task Area:	Task A: Increasing the Reliability of Water Supplies through Infrastructure Improvements
Funding Group:	Funding Group III
Project Location:	Valencia County, NM
Project Financing:	Applicant Cost Share: \$2,500,000 Reclamation Cost Share: \$2,500,000 Total Project Cost: \$5,000,000

Project Timeline:	Start Date: November 2024 Estimated Completion Date: June 2026
Located on Federal Facility:	No.

**Background Data**

The Middle Rio Grande Conservancy District (MRGCD or District) operates, maintains, and manages irrigation, drainage, and river flood control in the middle Rio Grande valley, making it a Category A applicant for this funding opportunity. The MRGCD promotes efficient and responsible water management, protects the environment, wildlife, and endangered species in cooperation with other local, state, and federal agencies. Water shortages from long-term and persistent drought have created intense challenges for the District to balance four key responsibilities: 1) competing water management interests that include the riparian habitat along 150 miles of the Rio Grande, 2) flood irrigation of 60,000 acres for a broad constituency that includes the six Middle Rio Grande Pueblos, 3) annual Rio Grande Compact delivery requirements, and 4) the needs of endangered species. This application requests funding for the MRGCD to carry out Phase One of the Feeder No. 3 Pump Station (Project), a FY 2024 WaterSMART Drought Resiliency Project. The District will provide all matching funds and in-kind contributions.

Feeder No. 3 is a significant supply canal for irrigation water in the farming community of Valencia County, NM. The Project will increase the reliability of water supplies through infrastructure improvements (Task A) and will provide benefits for fish, wildlife, and the environment through the installation of a pump station to supply Feeder No. 3 with additional water from the adjacent riverside drain, which is sourced mainly by accretion from the Rio Grande and irrigation return flows. This will resolve existing supply issues created by flow restrictions of adjacent MRGCD facilities and allow for more efficient deliveries to lands south of the project whose demands are fulfilled by the Feeder No. 3. It is expected that this Project, when fully built out, will produce a System Conservation benefit of approximately 6,500 acre-feet annually, and reduce the irrigation rotation of three canals.

Increasing the efficiency of water conveyance is crucial in this run-of-the-river system where storage is not always available. The most recent year that MRGCD was able to store native Rio Grande water in its El Vado reservoir was 2020. This is due to Rio Grande Compact storage restrictions and construction on the reservoir, the latter of which is expected to last until 2028. If drought conditions continue past the reconstruction, MRGCD will be contractually obligated to forgo water storage until New Mexico reduces its water debt to Texas. Increasing conveyance and irrigation efficiency throughout MRGCD’s service area will our resiliency and allow the District to adapt to high runoff years and droughts accordingly.

The pump station will also increase stream flow to benefit fish and wildlife. The primary recipient of these benefits is the endangered Rio Grande silvery minnow, which has been found

to seek refuge in the backwater habitats created at outfall sites where water quality is often superior to the main stem of the river due to decreased temperatures and increased dissolved oxygen levels. The southwestern willow flycatcher is another endangered species in the area that depends on dense riparian vegetation for breeding. Increased flows in the valley will indirectly benefit this species by providing additional water for their preferred vegetation and food source (mosquitos) to thrive.

## General Description of Area to be Addressed

### Sources of water supply

The MRGCD is a local government organization established by state law under the Conservancy Act of 1923, giving it broad authority to acquire lands and water rights, assess taxes and water service charges, design, construct and maintain facilities for the purposes of providing flood protection from the Rio Grande, and drain swamplands and provide irrigation water to farmland to the four counties and six Pueblos within the middle Rio Grande valley (MRG) -- all without the requirement of the traditional procedures used for adjudication. This authority included the consolidation of 70 separate channel headings and community acequias (ditches) that served lands throughout the MRG. The service area, which is home to the state's population and economic center, encompasses 150 miles of mostly riparian land and historic flood plain along the Rio Grande in central New Mexico -- from Cochiti Dam in the north to Bosque del Apache Wildlife Refuge in the south, running through the counties of Sandoval, Bernalillo, Valencia, and Socorro. Reclamation's Middle Rio Grande Project and San Juan-Chama Project (SJCP) provide supplemental storage and contract water as well as river maintenance that assist the District in utilizing the Rio Grande as its primary water supply.

### Total quantity of water supply managed and supplied

The MRGCD currently delivers water via gravity to over 10,000 irrigators in the MRG. The average annual diversion (2008-2021) to meet these needs was approximately 301,500 AF. This provides an annual farm delivery estimated at about 196,000 AF (65% conveyance efficiency). Actual consumptive use of water by agricultural crops is estimated at around 137,000 AF (70% application efficiency). The majority of water diverted but not consumed is returned to the river system through wasteways and drains. Some water evaporates directly from the surface of canals (estimated 12,000 AF annually) or may be consumed by riparian vegetation along canals. Most canals are earthen and incur some seepage loss. Seepage loss may be intercepted by drains and returned to the river or may recharge local shallow aquifers, which in turn may support additional riparian consumption or non-MRGCD water users (domestic wells).

### Water rights involved

The MRGCD holds permits to divert water to serve up to 132,114 acres. As part of the total water rights associated with the diversion permits, the six Middle Rio Grande Pueblos collectively have statutorily recognized water rights for a total of 8,847 acres of Prior and Paramount (priority) lands along with 11,951 acres of newly reclaimed lands for the six Middle Rio Grande Pueblos within and serviced by the MRGCD. Permit 1690 allows the District and the U.S. to store supplemental water at El Vado Reservoir. The District also holds a contract to

20,900 AF of SJCP water. **In addition, the MRGCD holds some pre-1907 water rights in the MRG while Permit 0620 entitles the District to divert and utilize “reclaimed” water associated with drainage of lands within the benefited area. This reclaimed water will be a major source, along with groundwater accreted from the Rio Grande, for the Feeder No. 3 pump station.**

#### Current water uses

The District currently serves approximately 60,000 acres. In addition to serving irrigators, the MRGCD's system of ditches and drains support a number of critical environmental services including 30,000 acres of a unique and contiguous riparian forest known as the Rio Grande Bosque (Bosque). These lands are owned by the District and include existing and future high quality habitat for endangered, threatened, and sensitive species, shallow groundwater recharge, urban open space, air pollution and heat island mitigation, and agricultural habitats. In the MRG basin, the U.S. Fish and Wildlife Service administers the Valle de Oro National Wildlife Refuge, Sevilleta National Wildlife Refuge, and Bosque del Apache National Wildlife Refuge. The basin is home to endangered species including the Rio Grande silvery minnow, southwestern willow flycatcher, and the western yellow-billed cuckoo.

#### Number of water users served

It is estimated that over 400 individual irrigators will be served by the implementation of the Project to increase the efficiency of water delivery to between 3,300-4,500 irrigated acres. The total area served changes slightly every year with acreage rotating in and out of production.

#### Major crops

Agricultural production on District lands is estimated to generate \$35 million to \$70 million per year. Major crops include alfalfa hay, other hays, and grasses (75% of all crops). The remaining 25% includes fruit trees, oats, barley, chile, and corn.

#### Water delivery or distribution system

The District maintains and operates the diversion dams, 1,200 miles of canals, laterals, drains and ditches throughout the benefited area. Water is delivered via gravity to over 10,000 irrigators in the MRG. Most canals are earthen, though MRGCD is pursuing canal lining of its major canals to further improve conveyance efficiency and limit transport losses.

#### Past Working Relationships with Reclamation

MRGCD has successfully implemented WaterSMART grants in the past, including a drought resiliency pump station in our Socorro Division and a comprehensive Drought Contingency Plan.



# Project Location

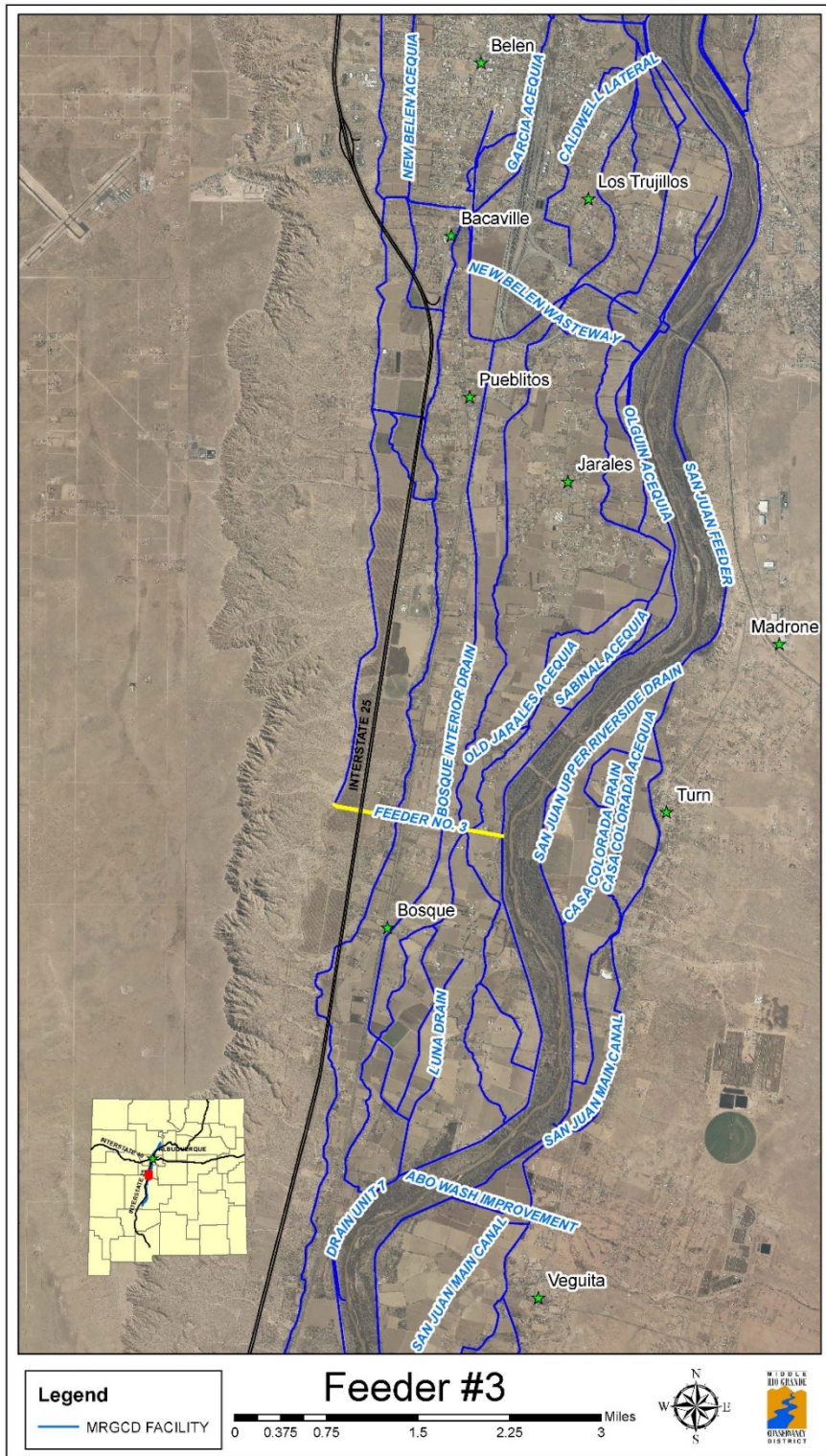


Exhibit A - Area Map of MRGCD Service Area in southern Valencia County, NM.



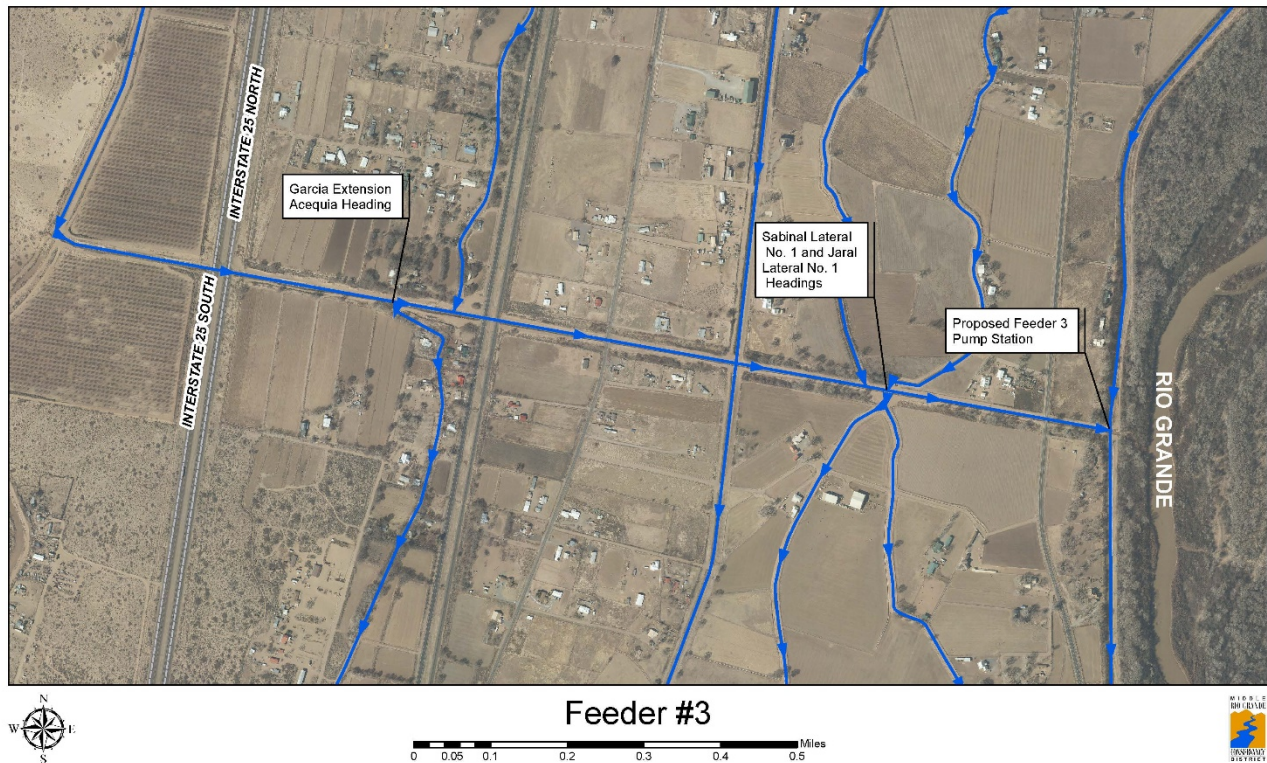


Exhibit B -Site Map of Feeder No.3 Canal and laterals served.

The Feeder No. 3 pump station will be situated west of the Rio Grande in Valencia County, New Mexico, approximately 40 miles south of Albuquerque. The pump station will lift water westerly up the Feeder No. 3 facility and release water at the headings of the Jaral No. 1 lateral (Phase 1), Sabinal No. 1 lateral (Phase 1), and Garcia Extension acequia (Phase 2). The approximate longitudinal coordinates of the pump station are 34.57099° N, 106.77206° W.

### Technical Project Description

The pump system will allow farmers to irrigate more reliably by increasing water volume in irrigation ditches that currently struggle to maintain constant head in low water conditions. The pump facility will begin at the Upper Sabinal riverside drain and use the Feeder No. 3 right-of-way to convey water in a series of pipe systems uphill to the irrigation facilities. These facilities include the Jaral Lateral No. 1&2, the Sabinal Lateral No. 1&2, and the Garcia Extension Acequia. The pump station will take advantage of accumulated drain water located at the intersection of the Upper Sabinal Riverside Drain and the Feeder No. 3 facilities. This drain water is a combination of return flows from upstream irrigation and groundwater sourced by accretion from the Rio Grande. Increasing the water surface elevation in the drain may be needed to achieve submergence on the pump intakes and will necessitate the construction of a downstream check structure.

Drain water which would otherwise be too low in the system to utilize for irrigation will be moved to a higher elevation, creating the additional supply needed to achieve the minimum



water surface elevations in the ditches to water fields in a timely fashion. A pump system will increase the operational resiliency and flexibility of the system, resulting in more efficient scheduling and application of water. Irrigation System Operators (ISO's) will no longer have to postpone scheduled irrigation events or start over due to rerouting or inconsistent water supply. This is expected to reduce the irrigation rotations for the canals listed above by days, and potentially weeks. It will also allow the MRGCD to increase the efficiency of routing water through this area and create a System Conservation of approximately 6,500 acre-feet annually or 28% of the current water supply sent to this part of the District. A portion of the system conservation volume will be committed to the Feeder 3 Outfall for species conservation. Using drain water which is often cooler than river water during the summer is vital to supporting adjacent riparian and aquatic habitat tend. The Outfall for Feeder 3 is currently in use, this pump project will simply provide a reliable source of water to the river via the outfall.

Due to upstream canal conditions, the MRGCD is currently only able to convey 60-90 cubic feet per second (cfs) maximum at the Belen Highline Canal, just west of Interstate 25. This water travels 24 miles south to the Feeder No. 3, where it is then diverted into subsequent facilities. The ideal rate of flow for this portion of the valley would be 110 cfs to account for the 35 cfs flow demand at the Garcia Extension acequia, 35 cfs flow demand at the Jaral No.1 heading to provide 20 cfs and 15 cfs for the Jaral Nos. 1 and 2, respectively; and 60 cfs flow demand at the Sabinal No. 1 heading to provide 25 cfs and 15 cfs to the Sabinal Nos. 1 and 2, respectively. The minimum flow necessary for efficient irrigation of these facilities is 85 cfs, which is significantly higher than the current rate MRGCD can provide with existing infrastructure and has resulted in issues with irrigation scheduling and water application. While the Belen Highline Canal is not the only source of water flowing into Feeder No. 3, it does provide the overwhelming majority of downstream flow for this area. Additionally, the amount of water arriving at the facilities via the Belen Highline Canal is variable, often high at night and lower during the day. The Project will allow the MRGCD to supplement existing flows and improve delivery conditions to ensure sufficient water gets to the Feeder No. 3 and can be diverted at the subsequent facilities.

Due to return flow collection and re-use, the southern end of the Belen Division (which encapsulates this Project) generally has adequate water supply; however, it has become increasingly difficult for MRGCD to convey adequate water south from the Isleta Diversion due to litigation and risk to infrastructure, specifically the Belen Highline Canal. Fortunately, the return flows and accretion of water into the Sabinal Riverside Drain present an opportunity to bypass the conveyance constraints on the Belen Highline and provide supplemental water to irrigators and the river at the very bottom of the Belen Division. At present, there is no way to lift water from the Sabinal Riverside Drain into Feeder No. 3 where it can be delivered to farmers in the division and back to the river. Re-use of the collected water only becomes possible through mechanical lift and pumping, which this Project will provide.

The scope of the installation will involve an electric pump system that will lift and pressurize approximately 60 cfs ,transporting it west through buried pipe within the Feeder No. 3 right-of-way and overcoming the elevation gain of approximately 40 feet between the pump station and the farthest heading. The alignment will run along the south maintenance bank of Feeder No. 3,

buried a minimum of 3' below the channel invert. A series of 2 or 3 separate pipelines will be installed to provide redundancy during pump maintenance. The total alignment of the pipes will span 5,000 feet from the Sabinal Riverside Drain, adjacent to the west bank of the Rio Grande, to the Garcia Extension Acequia heading. This project will be completed in multiple phases. Phase 1 will consist of the pump station and pipeline to the Jaral No. 1 and Sabinal No. 1 lateral headings. Phase 2 will extend this pipeline to deliver water to the Garcia Extension acequia. Planning and design of **Phase 2 is ongoing, but construction of Phase 2 is not being contemplated in this grant proposal.**

The facility will consist of a concrete inlet structure, a below-grade concrete pump house, and a housing for controls and switches. There will be two to three pumps, each with 24" split case units of approximately 180 combined horsepower. Pump controls will utilize variable frequency drives, keeping operating efficiency around 85% over a range of discharge.

The Project will require the construction of a new check structure within the Sabinal Riverside Drain to flow water via gravity into a below-grade pump well. From the well, water will be lifted, pressurized, and directed towards points along the Feeder No. 3 right-of-way where it can then be diverted to the subsequent ditches. The Phase 1 discharge point will be approximately 1,600 feet west of the Sabinal Riverside Drain. Phase 2 discharge point will be approximately 5,00 feet west of the Sabinal Riverside Drain. Water that is committed for river habitat will continue down Feeder No. 3 to the outfall where it will be released back into the river.

To reach the heading of Sabinal and Jaral 1 (Phase 1), the alignment will also intersect with Hwy 109. Phase 2 will require crossing Jarales Rd., Armijo Rd., a BNSF Railroad, and Old US Hwy 85. Each of these crossings will require prior coordination and applicable permitting with the corresponding owner agency. For the construction of the Project, buried pipe depth, inspection testing, and Project timeline restrictions will be included based on the respective permitting requirements. Electrical requirements will include the extension of 480 volt 3-phase power to the site. Appropriate safety and security barricades and fencing will be provided around the Project. See Exhibit B for site map.

Although not a part of this proposal, the District hopes to eventually offset the energy inputs of Feeder No. 3 pump station with solar energy from an on-site installation. The District possesses ample lands on its right-of-way near the Project for solar panel arrays and will be pursuing discussion with the appropriate local power provider about how to generate clean, renewable power to offset demands of the pumping station and to provide for other renewable power supplies to other users when the station is off-line. The Feeder No. 3 pump station is intended to be the centerpiece of a much larger water conservation initiative currently under development in the area that may include off-channel reregulation reservoirs and aquifer storage and recovery.

## Performance Measures

The benefits of the Feeder No. 3 Pump Station to the area's water supply will be readily quantifiable after completion. Measurement devices included in the project will allow for a full and detailed accounting of how much water is arriving at the station and where it is distributed when leaving the hub. The Feeder No. 3 pump station is expected to give area water managers the ability to increase or decrease these flows as desired in response to scheduled irrigation needs. The effectiveness of the Project will be apparent by comparisons of annual discharge and hydrograph variability before and after, showing that water was able to be delivered to locations where it was needed and in the quantities appropriate for acreage being irrigated. Because interruptions during irrigation delivery reduce application efficiency, the elimination of this variability will lead to reduced total on-farm application in the area. ISO irrigation logbook records will provide irrigation duration data and point to a clear reduction in average rotation schedules for the facilities served. These logbooks are in the process of being digitized and will be a valuable tool for quantifying and summarizing the performance of the project. A simple table describing the current delivery condition along with proposed delivery condition is provided below in Table A.

	Acres Served	Irrigators Served	Avg. # of irrigation events annually	Avg. Combined water delivery rate (cfs) for Sabinal 1&2 / Jarales 1&2 / Garcia Extension	Avg. Days to irrigate (Rotation of all)	Acre-Feet/Day	Acre-Feet/Rotation	Acre-Feet/Year	Potential Annual System Conservation Volume (AF)
Current Condition	3,300-4,500	400	8	85	17.3	169	2,916	23,328	
Proposed Condition	3,300-4,500	400	8	110	9.60	218	2,094	16,752	
									6,576

Table A - This table provides a simple comparison of current water supply conditions compared to proposed water supply conditions. By providing more volume more consistently, the "time to irrigate" is reduced resulting in a System Conservation of water.

## Evaluation Criteria

### Criterion A -- Project Benefits

#### Sub-criterion A1a: Adds to Available Water Supplies

One of the central objectives of the Project is to enhance the reliability of water supplies through targeted infrastructure improvements (Task A). This Project introduces an innovative approach to water resource management by tapping into a new source of water. It achieves this by drawing water from the drain, which leverages groundwater that accumulates from the river and captures return flows from upstream irrigation that would otherwise be unavailable for a secondary application as it is lost through conveyance or returned to the river. This method of sourcing water not only augments available water supplies but also is an inventive way of repurposing drain water.

The installation of the Project will benefit water users in Valencia and Socorro Counties in many ways and become a critical component of MRGCD's water infrastructure. The pump station will allow water to be placed where it is needed, in the quantity needed, at the right time by harnessing water sourced by accretion from the Rio Grande and irrigation return flows to

augment existing water conditions in the Feeder No. 3 facility. By optimizing this facility, MRGCD can more precisely schedule water deliveries and ensure a more reliable water supply, capable of delivering the necessary flow rates required for efficient and sustainable gravity-fed irrigation. It is expected that this initiative will not only bolster agricultural productivity but also foster water conservation practices, ultimately contributing to the long-term resilience and prosperity of the affected communities.

#### Sub-criterion A1b: Water Better Managed

By optimizing the flow rate in this area from the current minimum required for efficient irrigation (85 cfs) to what would be considered the ideal rate (110 cfs), the Project reduces the time water is needed in the area. As a result, irrigation events are significantly shortened. MRGCD's Water Distribution Manager and other field staff have reported that this difference in flow rates could drastically shorten irrigation events in the service area due to increased watering capabilities. With optimal supply, the Sabinal Nos. 1 & 2 and Jaral Nos. 1 & 2 laterals could complete irrigating up to 3-4 days faster than the current schedule (from 10 days to 7 days per rotation and from 12 days to 8 days, respectively). The Garcia Extension Acequia, which will be completed in Phase 2 of the Feeder No. 3 pump station project currently needs 30 days to supply all of the irrigators with water per rotation. The Project is expected to allow the same rotation to occur within 14 days. Considering the average of both wet and dry years, there are about 8 irrigation events annually. Although a higher volume of water will be running through this area during irrigation events, the shorter window of operation leads to less water being used overall.

Historically, the Upper Sabinal Riverside Drain has held more than enough water to supplement the Feeder No. 3, ranging from around 120-160 cfs during the irrigation season. While this portion of the drain is not gauged, estimates on the flow can be made by using the gauge data from the Unit 7 Drain at the Sabinal Wasteway, about 3 miles downstream from where the Upper Sabinal meets the Feeder No. 3. Assuming the Belen Highline Canal will continue to provide the area with a maximum flow rate of 60-90 cfs, and that additional water will be captured from upstream tributaries to the Feeder No. 3, the pump station would only need to supplement an additional 40 cfs during irrigation events in order to achieve efficient water application of all three headings if the ditches were run simultaneously. However, this service area comprises of what are known as "on-off ditches", which generally flow water only when irrigation events are scheduled and historically the three headings of interest are not operated at the same time. Therefore, the amount of water needing to be pumped from the drain at a given moment is likely smaller than the estimates given. A portion of the remaining water in the drain (70-110 cfs as the most conservative estimates) could be returned to the river for species habitat or continue to travel south for use downstream.

The proposed project is intended to make significant contributions to water resource management, environmental sustainability, and efficient agricultural practices. It is essential to emphasize that the benefits of this project extend far beyond its immediate implementation and will continue to provide advantages for as long as the pump station is in operation. This



long-term perspective underscores the project's importance and ensures the lasting impact it will have on our community and the environment.

#### Sub-criterion A2a: Climate Change

By optimizing irrigation practices and conserving water, the Project directly contributes to climate change mitigation efforts by creating a localized, supplemental water supply for 3,300-4,500 acres of irrigated land. Additional return flows back to the river via the Feeder 3 Outfall will also buffer aquatic habitat from warmer temperatures and variable hydrology.

In accordance with the District's mission to provide flood protection, this Project will manage flows more effectively in the service area by allowing for the controlled release of water during heavy rains or snowmelt, reducing the risk of floods in downstream areas. This not only safeguards property and infrastructure, but it also protects the environment from the adverse effects of uncontrolled flooding. This most recent irrigation season began with uncharacteristically high Spring runoff with flows upwards of 3,400 cfs downstream of the Feeder No. 3. These high flows caused concern for some of the levees in MRGCD's benefitted area, some of which were filled past capacity and had the potential to break and flood the surrounding land. This Project would increase flood protection in the area by allowing for excess river and drain water to be pumped into other facilities, releasing pressure on the drains and levees.

Efficient irrigation and water management contribute to healthier soils, which have the capacity to sequester carbon. Healthier soils not only support improved crop yields but also act as carbon sinks, aiding in the reduction of atmospheric carbon dioxide. These benefits extend to both the cultivated land in MRGCD's benefitted area and the riparian forest on either side of the Rio Grande. This pump station will create reliable water supply for farmers, which in turn, means they will be able to apply the water they need, when they need it. This alleviates both under delivery concerns and over delivery concerns from a healthy soils perspective.

The District's mission to "keep the valley green" reflects a desire to create green spaces in areas that would otherwise be developed or devoid of most vegetation. Over 400 miles of MRGCD waterways and the 30,000 acres of bosque that MRGCD owns and manages are classified as having recreational use. These uses include walking, biking, horseback riding, fishing, picnicking, rafting, and more. This Project will contribute to MRGCD's efforts to combat the urban heat island effect by providing shade, reducing air temperatures, and enhancing air quality.

Renewable energy offsets are contemplated in a later phase of the Feeder 3 development plan which is not being put forward for funding in this proposal. However, MRGCD intends to explore renewable energy options for offsetting pumping costs. Several options include "over-canal solar" and hydrokinetic energy generation.

### Sub-criterion A2b: Environmental Benefits

In addition to the direct agricultural benefits, the proposed installation of the Feeder No. 3 pump station presents a unique opportunity to address environmental flow considerations, particularly in relation to the endangered Rio Grande silvery minnow (RGSM). By increasing water supply efficiency and optimizing water use, MRGCD can generate system conservation credits from the pump station which can go towards physical storage or delivery of water back to the river. These credits would be attached to the pumping operation and would directly reflect the improvement in efficiency. The Feeder No.3 outfall would then become another strategic outfall for MRGCD. There are a number of these strategic outfall sites already in existence within MRGCD jurisdiction that serve as important habitat areas for the RGSM. Through the environmental water-leasing program (EWLP), the MRGCD uses these outfalls to deliver water back to the river that has been leased from constituents who voluntarily agree to fallow their land in exchange for monetary compensation. Delivering this water to fish habitat ensures that the MRGCD remains a good faith partner on the river while simultaneously enhancing agricultural water access. This holistic approach to water management underscores MRGCD's commitment to balancing the needs of agriculture with the imperative of safeguarding natural resources and the species that depend on them. By securing funding for this Project, MRGCD aims to not only support our farmers but also bolster the longevity of the Rio Grande silvery minnow, an iconic and endangered species of our region.

The southwestern willow flycatcher is another endangered species in the area that depends on dense riparian vegetation for nesting. Increased flows in the valley will benefit this species by providing additional water for this vegetation to grow. MRGCD diversions from the Rio Grande today are half of what they were 30 years ago, reservoir releases have been reduced substantially, and the District's operations have been adjusted to lessen the impact on endangered species -- all while continuing to successfully serve the remaining 60,000 acres of irrigated farmland in the MRG. This Project will allow MRGCD to continue to manage these competing interests.

### Sub-criterion A2c: Other Benefits

This Project is expected to generate a host of other benefits. Several of them include conflict mitigation between water users, achieving a more equitable water distribution, and adding property value across multiple sectors in proximity to the service area.

As mentioned previously, allowing for more efficient irrigation frees up water to be applied to river habitat as instream flows or to other farmers in the benefitted area. The RGSM uses water in a non-consumptive manner, so any water that is designated for habitat will continue to flow downstream and can possibly be credited towards New Mexico's Rio Grande Compact debt to Texas.

When the Compact debt is reduced, MRGCD will once again be able to store water in the El Vado reservoir for agricultural and environmental uses. This will increase flexibility in the system, allowing for water to be accumulated during wet years and for flows to be supplemented in times of drought. The method of operation is currently run-of-the-river,

meaning irrigators can divert when there is sufficient water in the river, and they cannot when there is not sufficient supply. When river flows dwindle, MRGCD enters into Prior and Paramount operations, where the only diversions made are to support the 6 Pueblos in the MRG. This can cause frustration with non-Pueblo farmers in the benefitted area whose livelihoods depend on receiving water for the entirety of the growing season. This Project is one of many management tools the District is using to keep providing water to farmers throughout the valley when river supplies diminish.

MRGCD strives for all of its water users to adhere to a 1-acre per hour irrigation schedule. However, some users are not currently able to achieve this due to infrastructure and policy limitations, such as the reduced flows that are seen in the Feeder No. 3 service area. This Project will be a major step in the District’s ongoing efforts to upgrade infrastructure and ensure efficient irrigation and equitable water distribution overall.

**Criterion B -- Planning and Preparedness**

In 2019, MRGCD released its Drought Contingency Plan (DCP), which was developed to increase its long-term resilience to drought and water shortages. The DCP was prepared by the MRGCD in collaboration with WEST Consultants and Davids Engineering, and it was funded in part by a previous WaterSMART drought preparedness grant. The DCP is evaluated every two years and updated as necessary. The plan includes an index for monitoring drought and corresponding triggers for drought severity, identified current and future vulnerabilities, proposed long-term mitigation actions, drought response actions, administrative framework, and a plan update process. Mitigation efforts outlined in the plan include infrastructure projects, operational changes, and pursuit of greater operational flexibility, all of which will be supported by the implementation of the Project.

Critical Resource	Resource Priority	Contributing Risks	Drought Impacts
Rio Grande Basin Surface Supply	High	Increased competition for supply through increases in upstream needs for water	Reduced water supplies, limiting the MRGCD’s ability meet its obligations
El Vado Storage	Medium-High	Natural variability in temperature and precipitation within the planning area	Less predictability in supplies due to the changes in the timing and spatial distribution of precipitation and streamflow
San Juan Chama Project Water		Reduction of volume and changes in timing of supplies due to climate change	

*Table 2. This table from the DCP shows a list of MRGCD resources that were identified as the most critical, the priority of those resources to the operations of the MRGCD, the risks to these resources, and how drought could impact them.*

The identified critical resources of the MRGCD are the sources of water supply: Rio Grande basin surface water supply, El Vado storage water, and the San Juan-Chama Project Water. Surface water from the Rio Grande is identified as the highest priority as it is the main source of water for the MRGCD. Contributions from El Vado storage and the SJCP are substantial but less critical than annual Rio Grande surface water supplies. This Project addresses two of the three identified critical resources. By increasing efficiency of irrigation downstream of Feeder No. 3, the District will have greater operational flexibility in terms of moving surface water throughout the system. This water can then be delivered to other water users upstream or downstream of the Project, used to supplement river habitat for endangered species, or accounted downstream as part of New Mexico's Compact obligations. By addressing these two resources, the Project may also indirectly address the SJCP water supply; as MRGCD's water operations become more efficient and reliable, it will be less dependent on the SJCP diversion and could potentially reserve the flows for emergencies rather than exhausting the supply mid-season.

Another consideration of the DCP is the vulnerability of some of MRGCD's current infrastructure as climate change increases the likelihood of droughts. The listed priorities that relate to this Project include the **need to maximize supply through alternative sources of water, and the need to reduce conveyance inefficiencies of MRGCD infrastructure**. The pump station thoroughly addresses these issues by using drain water as an additional supply, and maximizing efficiency of irrigation deliveries at Feeder No. 3. In fact, the implementation of a pumping plant is one of the infrastructure and operation recommendations listed in the DCP.

Additional aspects of the DCP include MRGCD's responsibilities regarding drought monitoring, notification of drought status or potential water shortages to water users, and the implementation of drought mitigation actions and drought response measures. The entire DCP can be accessed through this [LINK](#).

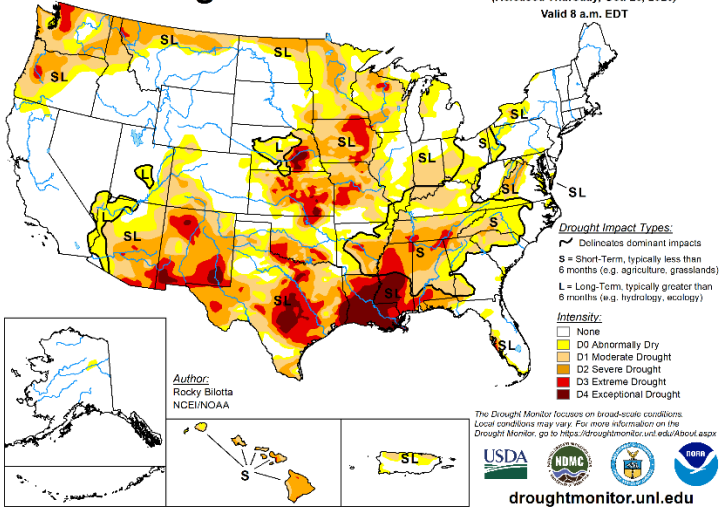
### Criterion C -- Severity of Actual or Potential Drought or Water Scarcity Impacts to be Addressed by the Project

The Project area, similar to most areas in New Mexico, is experiencing increased aridity due to climate change, leading to warmer temperatures, variable water supply which includes reduced snowpacks, earlier spring runoff, reduced soil moisture content, increased risk of wildfires, and increased competition for limited water resources. Because only a small percentage of the precipitation that falls onto the state remains available as surface water or groundwater (about 1.6% and 1.8%, respectively), any reduction in water supply can be disruptive to the system. Over the past decade, the Middle Rio Grande has experienced drought intensities ranging from abnormally dry to exceptional drought. Below are U.S. Drought Monitor graphs 2019-2023 for the month of October, illustrating that the Project area (central New Mexico) is consistently subjected to drought conditions. October of 2020 and October of 2023 have seen the worst of the more recent conditions, with Valencia County experiencing extreme and exceptional drought both years.



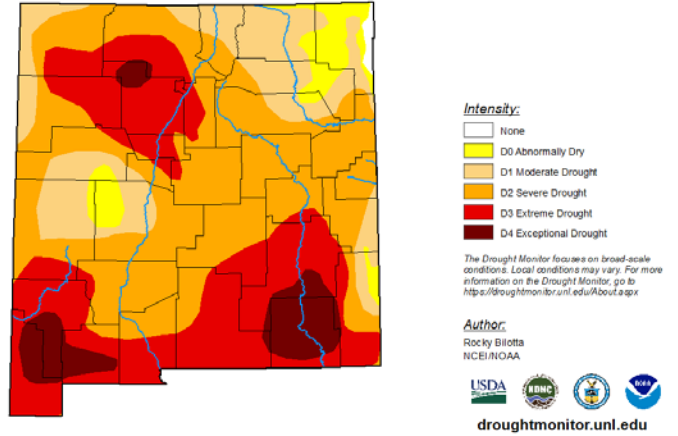
# U.S. Drought Monitor

October 24, 2023  
 (Released Thursday, Oct. 26, 2023)  
 Valid 8 a.m. EDT

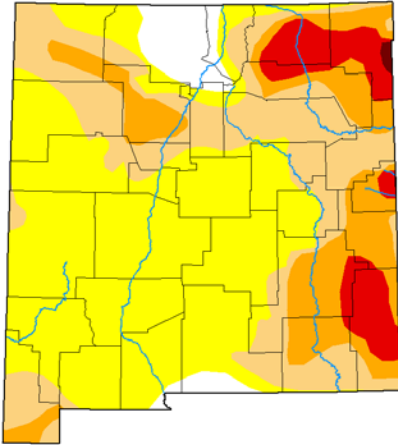


# U.S. Drought Monitor New Mexico

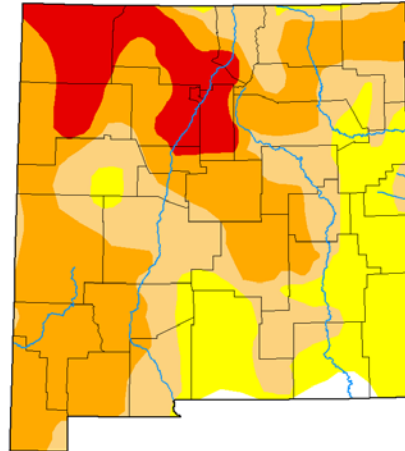
October 24, 2023  
 (Released Thursday, Oct. 26, 2023)  
 Valid 8 a.m. EDT



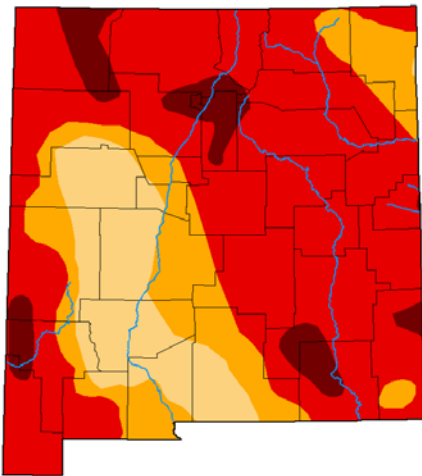
October 25, 2022



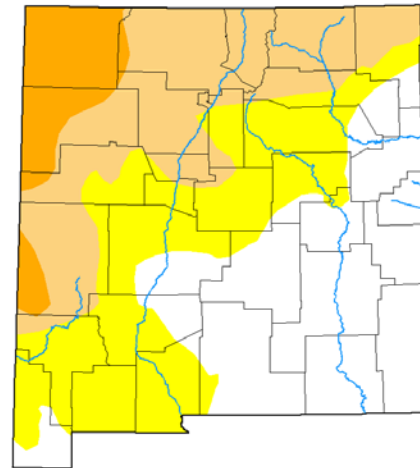
October 26, 2021



October 27, 2020



October 29, 2019



Recognizing the strong link between economic development and water supply, the New Mexico Legislature in 2013 passed Senate Memorial 8, the purpose of which was to bring together representatives from governmental jurisdictions, agencies, tribes, and acequias to discuss how to maximize the MRG's water supply. In 2014, the final report by the Middle Rio Grande Council of Governments identified supporting efficiency improvements as one of five significant ways to maximize the water supply. The same year, Senator Udall introduced the New Mexico Drought Bill (S.1936 NM Drought Preparedness Act of 2015) which focuses on development of a federal, state, tribal, and MRGCD partnership toward improving water management and system efficiencies to help the region cope with short-term drought and long-term effects of climate change.

According to a 50-year climate projection report by the New Mexico Bureau of Geology and Mineral Resources from 2022, global climate models indicate that the state will experience a temperature rise of 5° to 7° over the next 50 years. Precipitation projections vary geographically and temporally. The northern mountains may see an increase in precipitation in the winter but a decrease of spring precipitation, which is critical for snowmelt runoff and ecosystems. The southern part of the state may see a trend of stronger monsoonal activity, potentially later in the year than what is currently seen. The combination of increased temperature and uncertain precipitation leads to projections of increasingly arid conditions and more severe droughts. Snowpack and associated runoff, the Project area's most important source of water, are expected to decline substantially by the year 2070. Considering these projections and the increased rates of evaporation and transpiration that result from higher temperatures, the expected future of New Mexico's water supply is predominantly negative. Given these projected dire scenarios, it is critical for the MRGCD to develop small scale, nimble projects such as this pumping facility that supports water efficiency and water management during drought periods.

The current drought has already produced impacts resulting in economic losses during shortage operations in 4 out of the last 5 years, and it has impacted municipalities that have heavily invested in surface water use strategies to reduce groundwater pumping throughout the region. The Feeder No. 3 pump station will provide additional supply to 4,500 acres of agricultural land help maintain continuity for a portion of the Rio Grande that would otherwise be completely reliant on the upstream river conditions. While this Project is only intended to augment supply, MRGCD sees this type of infrastructure as a way to maximize drain returns and incorporate drought resilience strategies into a gravity fed system.

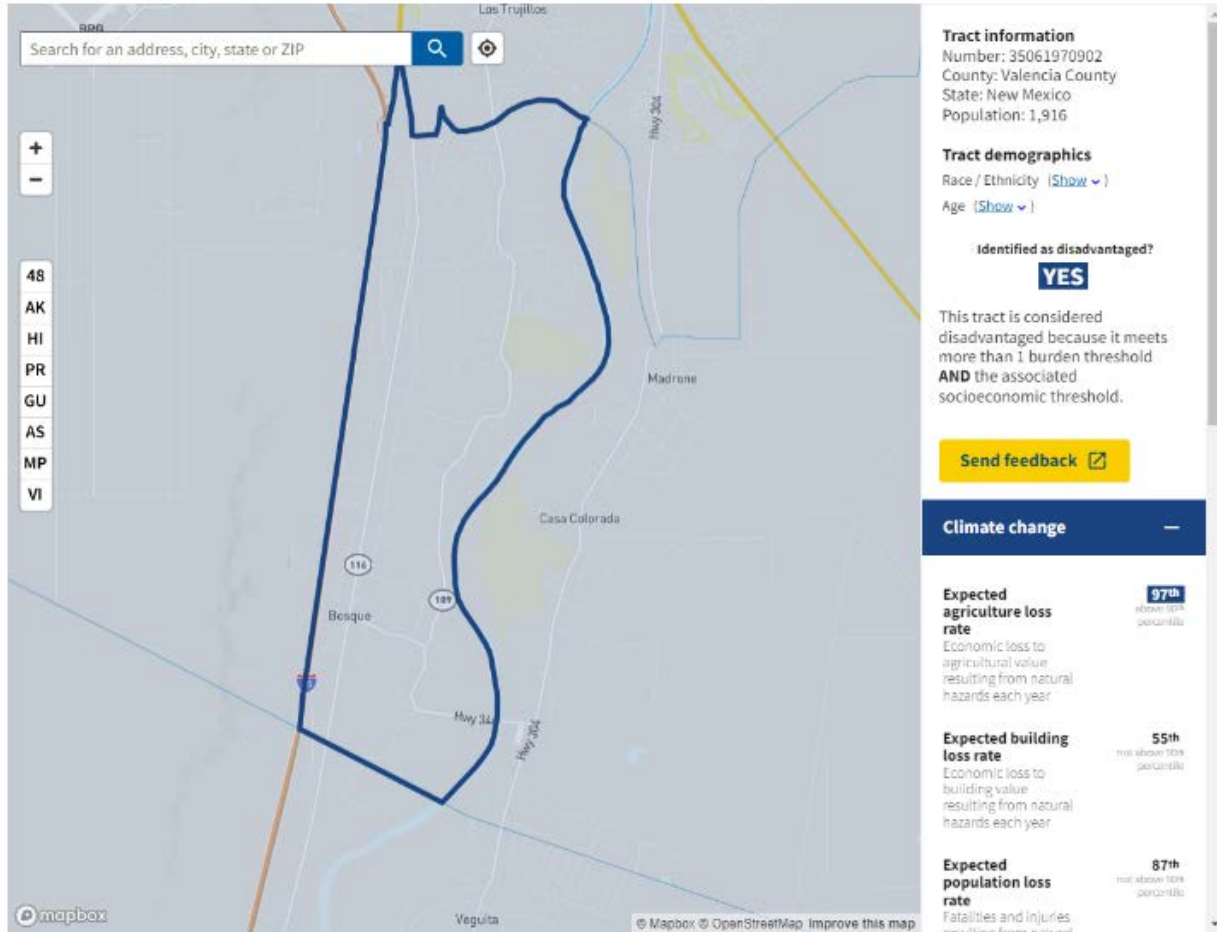
Because surface water supplies are so vulnerable to climate change, irrigators who depend on this source have few choices when there are supply shortages. This instability can force irrigators to reduce cropped acreage to fit the available supply at a given time, leading to economic hardship for both small- and large-scale operations, some who may need to put their land permanently out of production, risking the potential collapse of local or regional agricultural economies.

According to a national assessment published by the EPA in 2017, the largest impacts the southwestern United States will see due to climate change include loss of habitat for cold-water fish and damage to watersheds by wildfire. Increased water temperatures and the resulting lowering of dissolved oxygen levels are detrimental to fish species, including the endangered RGSM. As temperatures rise and soil moisture decreases, the MRG is at a higher risk for wildfires that would negatively affect the water supply as increased erosion carries a higher sediment load to the waterways. Similarly leading to increased erosion and therefore lowered water quality, loss of vegetation due to grazing is a concern in New Mexico. Human health adversities include higher risk of *E. coli* contamination due to increased temperatures and runoff and poor air quality due to increased aridification.

Understanding the importance of surface water supplies to the Project area is paramount when discussing mitigation efforts. Reservoir storage and the SJCP water help supplement the Rio Grande, but relying too heavily on cross-jurisdictional infrastructure can be detrimental to long-term planning as water constraints prevail. For the first time since the SJCP's construction in the early 1970s, it has experienced shortages for 18 separate project contractors including the MRGCD, Albuquerque Bernalillo County Water Utility Authority and other MRG communities. To effectively manage existing water supplies and seek out additional supplies within the system, MRGCD needs to implement its own drought-resiliency projects such as this pumping station.

#### Criterion D – Presidential and DOI Priorities

The Project area has been identified as encompassing disadvantaged or underserved communities by using the Climate and Economic Justice Screening Tool, shown below. This area of Valencia County is considered disadvantaged due to being ranked as above average for the following criteria: expected agriculture loss rate, projected flood risk, low income, high energy costs, unemployment, and high school education. The Project will serve this community by augmenting water supplies in a primarily agricultural area. By stabilizing the water supply in an area that is so dependent on the existing infrastructure, the playing field will be evened for this community to have access to irrigation water and in turn bolster economic growth. This project is below the six Middle Rio Grande tribal lands and facilities served by the District; however, this project will aid the District's ESA commitments that helps provide regulatory coverage to all District constituents including the six MRG Pueblos.



Per the White House Council on Environmental Quality’s interactive Climate and Economic Justice Screening Tool, the area highlighted above by the blue polygon meets the definition of a disadvantaged or underserved community. This community will benefit from the Feeder 3 Project by having a more resilient agricultural water supply during low water conditions.

### Criterion E – Readiness to Proceed

MRGCD has taken significant steps towards completing planning and design of this project by contracting with a local engineering firm to complete 30% design drawings for the Feeder 3 Pump Station. The Contractor will be responsible for Project Management, Pre-Design Phase Services, and Alternative Analysis. Per the Task order ***“The alternatives analysis will conform to USDA Bulletin 1780-2. This format is widely accepted by funding agencies when applying for grants and/or loans. This document will include background information of the community the project will benefit as well as various alternatives that will solve the problem presented. The report will evaluate the best way the address the concern noted in the Introduction section of this document by determining the transmission line location, length, diameter, and operating pressures to transfer 60 cfs in increments of 5 cfs between 0 and 60 cfs. BHI will also evaluate the existing ground elevations and evaluate up to three booster station alternatives. As part of the booster station alternatives analysis, BHI will review pump selections and coordinate with pump suppliers to determine best fit for system operations including flow, head, and NPSHa/r. BHI will coordinate with MRGCD to specify pump selection to facilitate internal O&M operations post construction and commissioning. The design will also include a***



*preliminary cost estimate to facilitate MRGCD selection of the preferred alternative and basis to pursue funding requests.”*

**Proposed Project Timeline:**

<b>September-October 2024</b>	Agreement signed between MRGCD and Reclamation Engineering design and drawings (MRGCD) Develop detailed work plan (MRGCD) NEPA review (Reclamation)
<b>November - December 2024</b>	Review and approval of plans Placement of orders for pumps and pipe (MRGCD) Initiation of construction (MRGCD)
<b>February-March 2025</b>	Completion of pump house and intake structure (MRGCD) First semiannual financial (SF-425) and interim report due
<b>July 2025</b>	Delivery and installation of pumps (MRGCD) Permitting for pipeline construction (MRGCD)
<b>August 2025</b>	Electrical service installation (Socorro Electric Cooperative or PNM) Second semiannual financial (SF-425) and interim report due
<b>November 2025</b>	Initiation of pipeline installations (post irrigation season shutdown)
<b>February 2026</b>	Completion of pipelines Third semiannual financial (SF-425) and interim report due
<b>March 2026</b>	Testing and commissioning of facility
<b>April 2026</b>	Final project submittals to Reclamation
<b>June 2026</b>	Final financial (SF-425) and report due

**Environmental and Cultural Resources Compliance**

The proposed project will involve construction activities along MRGCD facilities in Valencia County. The primary project site is along an earthen channel, subject to occasional dredging/cleaning/mowing, and is regularly disturbed by MRGCD maintenance workers and equipment. The proposed project will require excavation, earthwork, concrete placement, etc. It will produce a slight increase in dust, noise, vehicular and human traffic in the project area while construction is occurring, although these are normal activities in the area. Normal MRGCD construction practices will be employed to prevent construction impact to water in nearby MRGCD canals and drains. There are multiple farm houses near the project site. Residents of these farmhouses will be notified about the project, and any concerns about noise, dust, or vehicle traffic they may have will be addressed. Although activity will increase in intensity for a short time during construction of the project, residents of these farmhouses are accustomed to similar activities by MRGCD during normal operation and maintenance of canals and drains in the area.

Placement of pipelines for discharging water to canals will also require excavation and earthwork. These will be primarily on MRGCD canal rights of way, which are disturbed areas, subject to regular grading and mowing. Installation will produce a slight increase in dust, noise, vehicular and human traffic in the project area while construction is occurring, although these are normal activities in the area. Normal MRGCD construction practices will be employed to prevent construction impact to water in nearby MRGCD canals and drains. This project is not expected to impact designated critical habitat for RGSM and SWFL.

*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?*

Listed species include the Rio Grande silvery minnow, southwestern willow flycatcher, western yellow-billed cuckoo and/or the New Mexico meadow jumping mouse and Pecos sunflower. Critical habitat for RGSM and SWFL may be directly affected by the proposed project. Effects are expected to be beneficial, through providing a delivery of water to the critical habitat areas, and will be coordinated with the Service. The proposed project will not directly affect Mouse habitat.

The outfall to the Rio Grande from the Feeder No.3 presents an opportunity for combined habitat restoration and scientific research. The Feeder No.3 wasteway will deliver water to the west bank of the river through the levee (designated Critical Habitat for RGSM and SWFL). The MRGCD will be supportive of any experimental habitat treatments along this wasteway. The channel may also function as a refugium for the RGSM during times of extreme drought.

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

The proposed project will change the distribution of water between the Sabinal Riverside Drain and the Feeder No.3. There are no negative impacts expected.

*When was the water delivery system constructed?*

The existing MRGCD water delivery system, including the Sabinal Riverside Drain and Feeder No.3 were constructed between 1928 and 1935. The MRGCD canals replaced the function of historic acequias in the area dating back to the early 1800'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 not result in modifications to individual features of the MRGCD irrigation system, with the exception of the new outlet from the pump station that will allow water from the Sabinal Riverside Drain to flow into the Feed No.3.

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

The MRGCD's El Vado Dam and El Vado Reservoir, and several of the MRGCD diversion dams, are listed on the NRHP. The Corrales siphon, abandoned Atrisco Heading, and other structures are eligible or already listed on either the NRHP, or with the NM SHPO. Features or structures in the immediate area of the project site which might be eligible for listing on the NRHP or of interest NM SHPO will not be affected by the project.

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

No, none are known, and the project area is already extensively disturbed.

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

No. While this project is located in a historically underserved area, the end result of the project will be to improve water supply conditions for farmers in the area.

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

No. There are no known ceremonial or sacred sites in the project footprint.

*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?*

No. Water that is pumped from the riverside drain will have the same seed source as water that is provided to the service area from the Belen Highline.

### **Required Permits or Approvals**

Construction of the Feeder No. 3 pipeline will require crossing under two New Mexico State Highways (Highway 116 and Highway 109) and a train track owned and operated by Burlington Northern – Santa Fe Railway. Permits and licenses will need to be procured from these entities, as well as Valencia County where the pipeline will intercept county roads. MRGCD owns sufficient right of way on both sides of the Feeder No 3 for excavation and backfill of the pipeline. Where the pipeline intersects the crossings mentioned above, MRGCD will secure all necessary permits. Electrical service to the site may require permitting by Valencia County.

All Federal Compliance and Approvals including NEPA will be satisfied in coordination with the Bureau of Reclamation.

### **Overlap or Duplication of Effort Statement**

MRGCD is not aware of any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel that would constitute an overlap or duplication of effort for the Feeder 3 Pump Project.

### **Conflict of Interest Disclosure Statement**

MRGCD is not aware of any actual or potential conflict of interest at the time of submission.

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

As of 10/12/2023 MRGCD has contracted with a local engineering firm (Bohannon Huston Inc.) to bring the Feeder 3 pump station project to 30% design. A copy of the task order can be provided upon request.

### **Criterion F -- Nexus to Reclamation**

The Project will provide a collection point for drain returns so they can be efficiently delivered to an irrigation channel and/or to an area in the Rio Grande that is historically difficult to keep water in for Rio Grande silvery minnow and southwestern willow flycatcher habitat. The District is a partner with

Reclamation in the MRG Water Operations Biological Assessment (BA) and this area is an important component in our collective commitments in that BA.

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

Yes, the MRGCD receives Reclamation project water from the Middle Rio Grande Project and the San Juan-Chama Project.

*Is the project on Reclamation project lands or involving Reclamation facilities?*

No, the entire project will take place within MRGCD right-of-way.

*Is the applicant a Tribe?*

No.

### Criterion G –Stakeholder Support for Proposed Project

MRGCD has broad support for this project from a wide array of water entities and users. Letters of support for the Feeder 3 Pump Project have been received from Elephant Butte Irrigation District, a water district downstream of the project location that is heavily invested in efficient water conveyance and system conservation. MRGCD also has letters of support from Audubon Southwest, and the National Fish and Wildlife Foundation, both of which are regional leaders in providing support for sustainable agriculture and environmental management. The District also secured a Letter of Support from ABCWUA (Albuquerque’s Water Utility Authority). ABCWUA is a close partner and water manager on the Rio Grande. They are focused on water resiliency and long-term supply trends. MRGCD did not request any financial support from the entities mentioned here. Having a diverse collection of water managers and advocates sign off on this project is proof that what we are contemplating here is good for the Middle Rio Grande Valley.



# Project Budget

OMB Number: 4040-0008  
Expiration Date: 02/28/2025

<b>BUDGET INFORMATION - Construction Programs</b>			
<i>NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.</i>			
COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
2. Land, structures, rights-of-way, appraisals, etc.	\$ <input type="text" value="4,856.52"/>	\$ <input type="text"/>	\$ <input type="text" value="4,856.52"/>
3. Relocation expenses and payments	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
4. Architectural and engineering fees	\$ <input type="text" value="219,148.72"/>	\$ <input type="text"/>	\$ <input type="text" value="219,148.72"/>
5. Other architectural and engineering fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
6. Project inspection fees	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
7. Site work	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
8. Demolition and removal	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
9. Construction	\$ <input type="text" value="4,463,546.50"/>	\$ <input type="text"/>	\$ <input type="text" value="4,463,546.50"/>
10. Equipment	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
11. Miscellaneous	\$ <input type="text" value="312,448.26"/>	\$ <input type="text"/>	\$ <input type="text" value="312,448.26"/>
12. SUBTOTAL (sum of lines 1-11)	\$ <input type="text" value="5,000,000.00"/>	\$ <input type="text"/>	\$ <input type="text" value="5,000,000.00"/>
13. Contingencies	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
14. SUBTOTAL	\$ <input type="text" value="5,000,000.00"/>	\$ <input type="text"/>	\$ <input type="text" value="5,000,000.00"/>
15. Project (program) income	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ <input type="text" value="5,000,000.00"/>	\$ <input type="text"/>	\$ <input type="text" value="5,000,000.00"/>
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter eligible costs from line 16c. Multiply X <input type="text" value="50"/> % Enter the resulting Federal share.			\$ <input type="text" value="2,500,000.00"/>

September 19, 2023

RE: Letter of Support for Middle Rio Grande Conservancy District's WaterSMART Drought Resiliency Project Grant – Feeder No.3 Pump Station

Dear Bureau of Reclamation Grants Review Committee:

The Elephant Butte Irrigation District (EBID) is providing this letter of support for the Middle Rio Grande Conservancy District's (MRGCD) application for a Drought Resiliency Grant made available through the U.S. Bureau of Reclamation's WaterSMART Program. The MRGCD is a collaborative water management partner with EBID, working together on multiple projects aimed at improving water conservation, management, and downstream Compact Deliveries in the Middle Rio Grande Valley.

The MRGCD is proposing the installation of the Feeder No.3 Pump Station which will enable the lower extremities of the west-side Belen Division to irrigate more efficiently through augmented riverside drain supply. Currently, water must be diverted at Isleta Dam and routed through over 25 miles of canal to reach the Feeder No.3 which provides water to approximately 4,500 acres of productive agriculture in southern Valencia County. However, upstream operating constraints, and persistent drought have impacted the District's ability to efficiently convey water to the bottom portions of the Belen Division. The Feeder No.3 Pump station will take advantage of drain return flows and river accretion in the Upper Sabinal Riverside Drain to augment supply and increase conveyance and irrigation efficiency in this area. The pump station will also support river habitat by increasing the discharge of water to the river via the Feeder No.3 wasteway. This wasteway will serve as a Strategic Outfall in the area, supporting multiple listed species, including the Rio Grande Silvery Minnow and the Southwest Willow Flycatcher.

We at EBID have significant experience with this type of project. In the mid 2010s, we developed a lift pump diversion from the Rio Grande into the tail end of our Rincon Valley canal system as part of our Water, Habitat, Energy Nexus (WHEN) WaterSMART grant. The lift pumps basically transformed the farmers in the service area from the tail end of the Rincon Valley system to the head of the lift pump command area. The discrepancy between the head of a canal system and the tail is thousands of years old - as old as irrigation canal systems. Using modern technology by adding a lift pump station to serve the tail-enders, we were able to overcome this dilemma that EBID has been dealing with for its entire century-plus of operation. Our farmers are delighted, both upstream and downstream of the lift pump site, and our delivery efficiency has never been better. We are implementing similar projects in our Mesilla Valley systems, also with WaterSMART funding.

The proposed Feeder No. 3 Pump Station would offer similar benefits, as well as improving habitat management. It will leave more water in the river for a longer stretch, and improve the efficiency of Compact delivery to Elephant Butte Reservoir.

There are unique challenges to water management on the Rio Grande, and we are pleased that MRGCD is undertaking this effort as we are equally concerned about future water availability and system resiliency. If you have questions or need additional information, please feel free to contact me at 575-639-4377 or [gesslinger@ebid-nm.org](mailto:gesslinger@ebid-nm.org).

Sincerely,

A handwritten signature in black ink, appearing to read 'Gary Esslinger', followed by a horizontal line.

Gary Esslinger  
EBID Treasurer/Manager



# NFWF

**NATIONAL FISH and WILDLIFE FOUNDATION**

1133 Fifteenth Street, N.W. Suite 1100

Washington, D.C. 20005

P 202-857-0166 | F 202-857-0162 | [nfwf.org](http://nfwf.org)

October 10, 2023

RE: Letter of Support for Middle Rio Grande Conservancy District's WaterSMART Drought Resiliency Project Grant – Feeder No.3 Pump Station

Dear Bureau of Reclamation Grants Review Committee:

The National Fish and Wildlife Foundation (NFWF) is providing this letter of support for the Middle Rio Grande Conservancy District's (District) application for a Drought Resiliency Grant made available through the U.S. Bureau of Reclamation's WaterSMART Program. The District is a collaborative water management partner with NFWF, working together on multiple projects aimed at improving water conservation and management in the Middle Rio Grande Valley.

The District is proposing the installation of the Feeder No.3 Pump Station which will enable the lower extremities of the west-side Belen Division to irrigate more efficiently through augmented riverside drain supply. Currently, water must be diverted at Isleta Dam and routed through over 25 miles of canal to reach the Feeder No.3 which provides water to approximately 4,500 acres of productive agriculture in southern Valencia County. However, upstream operating constraints, and persistent drought have impacted the District's ability to efficiently convey water to the bottom portions of the Belen Division. The Feeder No.3 Pump station will take advantage of drain return flows and river accretion in the Upper Sabinal Riverside Drain to augment supply and increase conveyance and irrigation efficiency in this area. The pump station will also support river habitat by increasing the discharge of water to the river via the Feeder No.3 wasteway. This wasteway will serve as a Strategic Outfall in the area, supporting multiple listed species, including the Rio Grande Silvery Minnow and the Southwest Willow Flycatcher.

There are unique challenges to water management on the Rio Grande, and we are pleased the District is undertaking this effort as we are equally concerned about future water availability and system resiliency. If you have questions or need additional information, please feel free to contact me at [Chris.West@nfwf.org](mailto:Chris.West@nfwf.org).

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris West".

Chris West  
Director, Rocky Mountain Region



# Audubon

Paul Tashjian  
Director of Freshwater Conservation  
Audubon Southwest  
400 Gold Ave SW; Suite 660  
Albuquerque, NM 87102  
Phone: 505-217-4531

September 18, 2023

RE: Letter of Support for Middle Rio Grande Conservancy District's WaterSMART Drought Resiliency Project Grant – Feeder No.3 Pump Station

Dear Bureau of Reclamation Grants Review Committee:

Audubon Southwest is providing this letter of support for the Middle Rio Grande Conservancy District's (District) application for a Drought Resiliency Grant made available through the U.S. Bureau of Reclamation's WaterSMART Program. The District is a collaborative water management partner with Audubon SW, working together on multiple projects aimed at improving water conservation and habitat management in the Middle Rio Grande Valley.

The District is proposing the installation of the Feeder No.3 Pump Station which will enable the lower extremities of the west-side Belen Division to irrigate more efficiently through augmented riverside drain supply. Currently, water must be diverted at Isleta Dam and routed through over 25 miles of canal to reach the Feeder No.3 which provides water to approximately 4,500 acres of productive agriculture in southern Valencia County. However, upstream operating constraints, and persistent drought have impacted the District's ability to efficiently convey water to the bottom portions of the Belen Division. The Feeder No.3 Pump station will take advantage of drain return flows and river accretion in the Upper Sabinal Riverside Drain to augment supply and increase conveyance and irrigation efficiency in this area. The pump station will also support river habitat by increasing the discharge of water to the river via the Feeder No.3 wasteway. This wasteway will serve as a Strategic Outfall in the area, supporting multiple listed species, including the Rio Grande Silvery Minnow and the Southwest Willow Flycatcher.

There are unique challenges to water management on the Rio Grande, and we are pleased the District is undertaking this effort as we are equally concerned about future water availability and system resiliency. This type of project improves efficiency while also improving water delivery for environmental purposes. If you have questions or need additional information, please feel free to contact me at 505 217-4531 or [Paul.Tashjian@audubon.org](mailto:Paul.Tashjian@audubon.org).

Sincerely,



---

September 29, 2023

RE: Letter of Support for Middle Rio Grande Conservancy District's WaterSMART Drought Resiliency Project Grant – Feeder No.3 Pump Station

Dear Bureau of Reclamation Grants Review Committee:

The Albuquerque Bernalillo County Water Utility Authority (Water Authority) is providing this letter of support for the Middle Rio Grande Conservancy District's (District) application for a Drought Resiliency Grant made available through the U.S. Bureau of Reclamation's WaterSMART Program. The District is a collaborative water management partner with the Water Authority, working together on multiple projects aimed at improving water conservation and management in the Middle Rio Grande Valley.

The District is proposing the installation of the Feeder No.3 Pump Station which will enable the lower extremities of the west-side Belen Division to irrigate more efficiently through augmented riverside drain supply. Currently, water must be diverted at Isleta Dam and routed through over 25 miles of canal to reach the Feeder No.3 which provides water to approximately 4,500 acres of productive agriculture in southern Valencia County. However, upstream operating constraints, and persistent drought have impacted the District's ability to efficiently convey water to the bottom portions of the Belen Division. The Feeder No.3 Pump station will take advantage of drain return flows and river accretion in the Upper Sabinal Riverside Drain to augment supply and increase conveyance and irrigation efficiency in this area. The pump station will also support river habitat by increasing the discharge of water to the river via the Feeder No.3 wasteway. This wasteway will serve as a Strategic Outfall in the area, supporting multiple listed species, including the Rio Grande Silvery Minnow and the Southwest Willow Flycatcher.

There are unique challenges to water management on the Rio Grande, and we are pleased the District is undertaking this effort as we are concerned about future water availability and system resiliency. If you have questions or need additional information, please feel free to contact me at (505) 289-3434 or [mkelly@abcwua.org](mailto:mkelly@abcwua.org).

Sincerely,



Mark Kelly PE  
Water Resources Division Manager  
Albuquerque Bernalillo County Water Utility Authority