

GRANT APPLICATION

to the

U.S. Bureau of Reclamation

Opportunity Announcement No. BOR-DO-20-F002

WaterSMART Grants: Drought Response Program: Drought Resiliency Projects for FY2020

WELL NO. 3

for the Village of Tijeras

Bernalillo, New Mexico

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Mayor

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October 16, 2019



Village of Tijeras Well No. 3 Project Narrative

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Attachments to this Application

- Budget Proposal
- Tijeras Drought Contingency Plan
- Tijeras Public Water System Emergency Response Plan
- Resolution No. 285 – Emergency Water Restrictions Due to Severe Drought
- Tijeras Well No. 3 Siting Study
- Office of the State Engineer Municipal Well Permit (File No. RG-51777-POD3)
- NM Environmental Department - Approval to Construct Well (NM3500601)
- Proof of Matching Funds – Minutes from Village Council Meeting on 08/16/19, Senate Bill 280 (p. 96-97), and Grant Agreement 18-C2234-STB

Executive Summary

Date: October 16, 2019

Applicant Name: Village of Tijeras

County: Bernalillo County

State: New Mexico

The Village of Tijeras is requesting \$673,000 from the Bureau of Reclamation WaterSMART – Drought Response Program to help fund the construction of a new 570-foot deep public water supply well and associated pumping and disinfection facilities. This project significantly improves the ability of local water managers to continue to deliver water during a drought. This project builds long-term resilience to drought by providing an alternate water source eliminating the need for emergency response actions such as water hauling or temporary infrastructure. By providing a new water source to the existing water system, the proposed project will not only significantly decrease vulnerabilities and costs that could be caused by drought but will allow the Village to be in compliance with [Safe Drinking Water Act](#).

Well No.1 capacity has been declining for the past several years. The aquifer from which the well produces is likely bounded by a fault, and thus is compartmentalized and receives limited recharge from regional sources. Since the initial construction of Well No. 1, it has been re-drilled twice and re-equipped three times. Well yield is expected to continue to decline until the well is no longer viable as a source of supply. The New Mexico Environment Department (NMED) Drinking Water Bureau (NMED-DWB) requires two sources of supply for public water suppliers, in case one source is down for maintenance or failure. A new well is needed to replace Well No. 1 to meet the State's requirements. The Village of Tijeras has been proactively working to make this project a reality since early 2017 when an engineering firm was contracted to perform a well siting study and a hydrogeologic study. Upon identifying the well site location, in September 2017 the Village proceeded with submitting a permit application to the Office of the State Engineer. In October 2018, the Village received a permit to drill at the proposed location.

The well design was initiated soon after obtaining the permit and was completed in September 2019 utilizing non-federal money as part of the first phase of the two-phased project. Phase one will be funded by non-federal sources and the remaining elements of this phase will require a 6-month effort beginning in November 2019 with bidding and award of the well, followed by well construction ending in April 2020. During this time electric power extension will be initiated, due to the long lead times required. Phase two has a 13-month duration and will be funded by both non-federal and federal sources. Design of the Phase two pumping and disinfection facilities will begin in January 2020. Construction of the facilities is expected to start in October 2020 and be completed by February 2021. This project is located on Village owned property and is not located on a federal facility.

Background Data

The Village of Tijeras currently serves over 300 water users with 286 residential connections. The water system is currently use for residential and emergency response purposes and not for irrigation or large commercial operations. There are 30 commercial connections to the water system with the most significant water users being schools and a local car wash.

The Village's water system is comprised of 73,200 linear feet of distribution lines, with two storage tanks with a total capacity of 258,000 gallons.

In summary, the Village of Tijeras Water System consists of the following components:

- Two municipal wells
- Two storage tanks (165,000 gallons and 93,000 gallons)
- Two chlorination facilities
- Four booster pump stations
- One PRV station
- One PSV station
- 73,200 feet of water line ranging from 6 inches to 12 inches in diameter

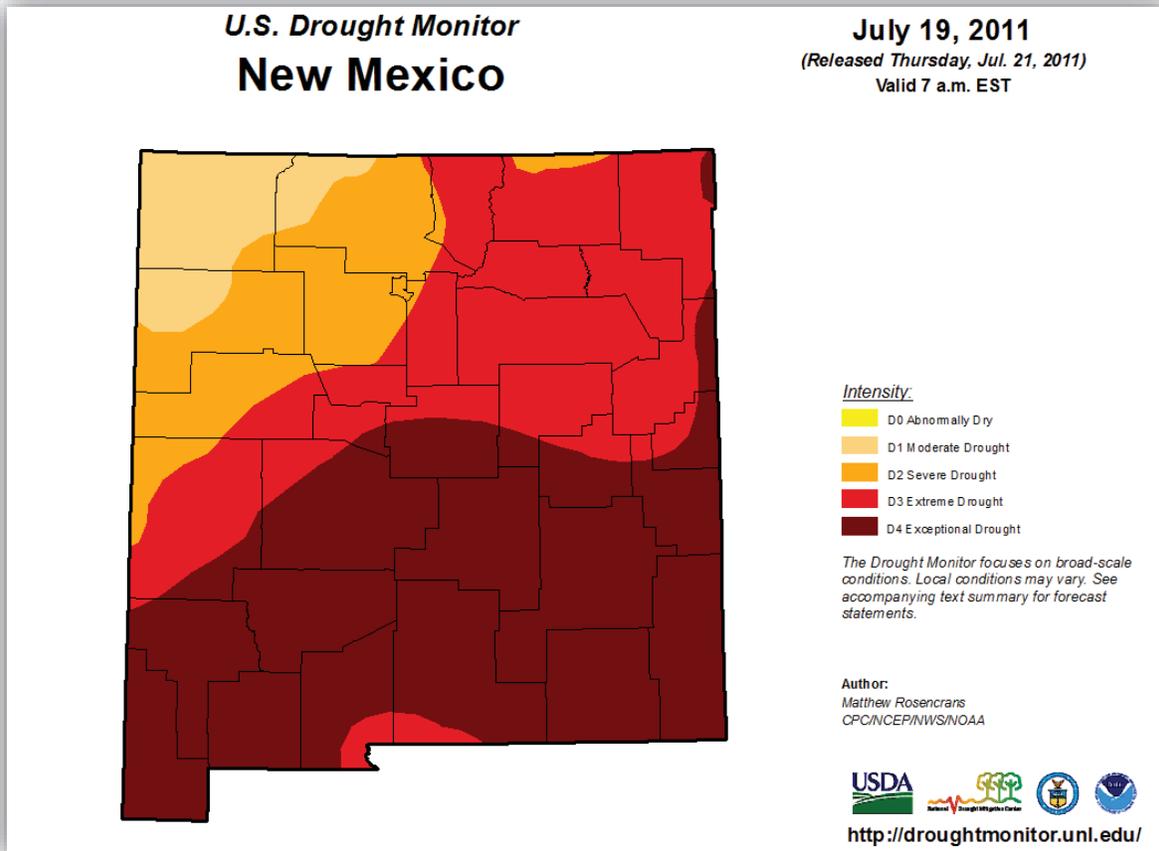
In 2003, old Well No. 1 collapsed and was replaced by the current Well No. 1. Initially, new Well No. 1 produced a yield of 70 gpm, however today it is currently only producing about 20 gpm. Well No. 2, located about 5,800 ft. northeast of Well No. 1, currently produces about 40 gpm. Water supply improvement is required in order to meet projected future demand. Current water demand in the Village is approximately 30 acre foot/year (afy) and projected demand in 2025 is expected to grow. Maximum peak demand could be as high as 132 gpm by 2027.

In March 2011, the Village of Tijeras worked with the Bureau of Reclamation and was granted \$5,000 with a 1:1 match to develop the Village's water conservation plan. In July 2011, the Village was forced to enact Resolution No. 285 to approve emergency water restrictions in order to conserve water to severe drought conditions and well performance concerns. In June 2016, the [Dog Head Fire](#) unleashed just south of the Village burning 17,912 acres and destroying dozens of homes and several other structures. This firefighting effort and influx of emergency responders to the Village put tremendous stress on the Village's water system.

On September 6, 2017, the Village submitted an application with Office of the State Engineer for a permit to drill a supplemental well and on October 31, 2018 the Village was issued a permit to drill a well. In February 2019, the Village submitted an application with the NMED-DWB to modify the Village's public water supply system. The application included an inventory of potential contamination sources that was conducted utilizing two distinct methods that would identify potential contaminant water ways and land uses. The Village received approval to drill the well from the New Mexico Environment Department in June 2019.

Past Droughts & Responses

Since 2000, the longest duration of drought (D1-D4) in New Mexico lasted 329 weeks beginning on May 1, 2001 and ending on August 14, 2007. The most intense period of drought occurred the week of July 5, 2011 where D4 affected 49.09% of New Mexico land.



The Village of Tijeras responded to this exceptional period of drought by passing Resolution #285 (attached) on July 1, 2011, which adopted strict water restrictions including disallowing water sales for profit, limiting outdoor irrigation, and prohibiting outdoor automobile washing and filling swimming pools.

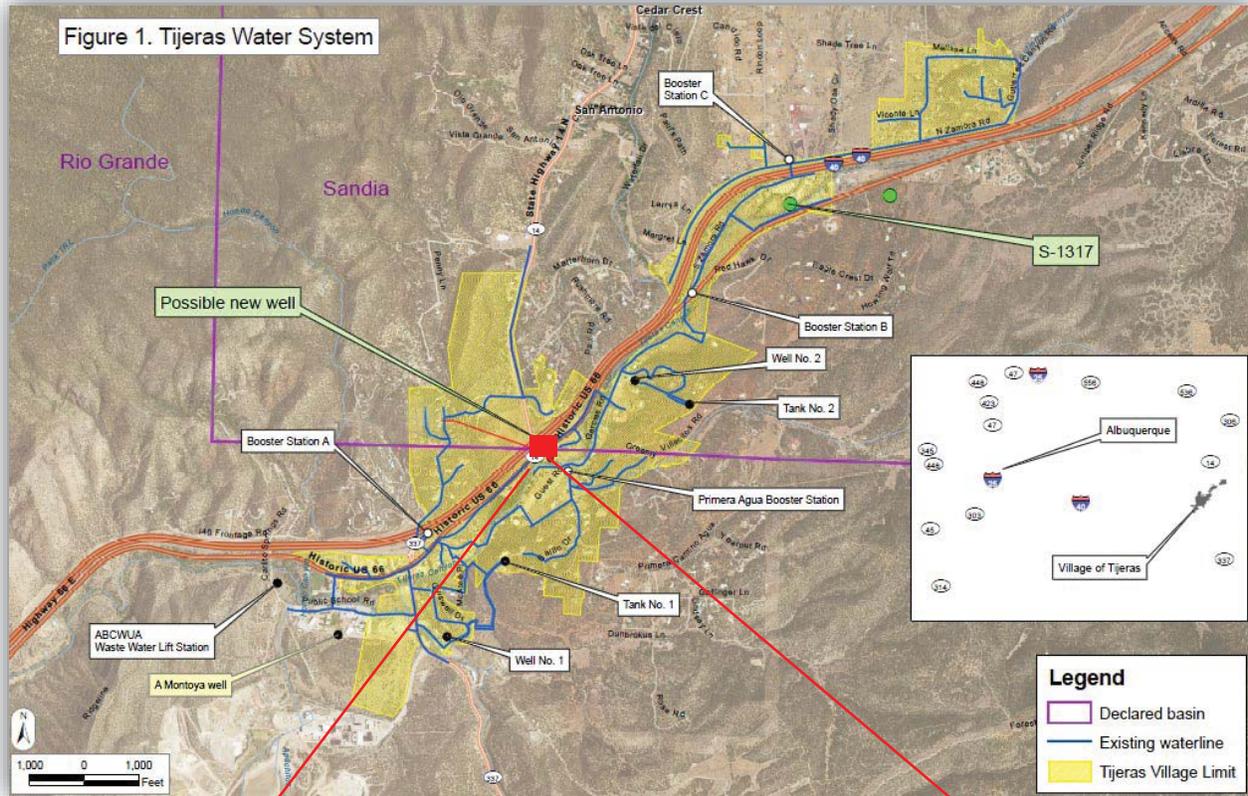
Ironically, the [Albuquerque Journal](#) reported that during the same time period a work crew hit a water line resulting in the forced shutoff of Well #1, which when turned back on was not able to return to its previous pumping capacity. At this point, the Village's only choice was to rely solely on Well #2 while working to repair Well #1. During initial investigation it was discovered that following this incident the water table had dropped almost 75 feet from 224 feet to 149.5 feet.

Project Location

County/State: Bernalillo County, New Mexico

Location Description: Approximately .14 miles south of New Mexico Highway 14 and 333 within the Village of Tijeras on Village-owned property

Location Coordinates: 35° 5'7.1"N Latitude / 106°22'45.8"W Longitude



Technical Project Description and Milestones

Remaining tasks in phase one include drilling, casing, developing, and testing new public supply well (Well No. 3). The well will be drilled under an Additional Groundwater Point of Diversion permit approved by the NM Office of the State Engineer (File No. RG-51777-POD3). The well is planned to be 570 feet deep (although the POD permit allows up to 1,000 feet deep), completed with a 8-inch stainless steel casing and stainless steel louvered screen, and a gravel envelope with a 50-foot deep sanitary annular seal. While well construction is underway, application to PNM will be made to extend electrical power to the well site. Extending electrical power is typically a long-lead item, so initiating the extension early in the project is critical. Phase two entails well pumping and disinfection facility construction including installing a pump and motor in the well; constructing a well building to house the disinfection system, process piping and controls; constructing a pipeline to connect the well to the distribution system; and site improvements including grading and drainage, driveway and security fencing.

Scope of Work

Phase 1:

1. Drill 20-inch borehole and set 50 feet of 16-inch diameter conductor casing
2. Install cement seal between conductor casing and borehole
3. Drill 6-inch pilot hole
4. Run geophysical logs
5. If logs and observations indicate a favorable site, ream pilot hole to final diameter of 15 inches
6. Construct well
7. Develop well to remove drilling mud and fine sediments to increase well efficiency
8. Test well
9. Extend electrical service (PNM)
10. Design Pumping and Chlorination Facilities

Phase 2:

1. Install submersible pump and motor
2. Construct well house
3. Install process and yard piping
4. Install disinfection system
5. Install electrical power and controls
6. Construct pipeline connecting well to distribution system
7. Construct grading, drainage, driveway and fence

Milestones

1. Phase 1 – Well Drilling Design
2. Phase 1 – Well Drilling Bid/Award
3. Phase 1 – Well Drilling Construction
4. Extend Electrical Power to the Site
5. Phase 2 – Well Pumping and Disinfection Design,
6. Phase 2 – Well Pumping and Disinfection Bid/Award,
7. Phase 2 – Well Pumping and Disinfection Construction

Performance Measures

The applicant proposes the following method of quantifying the benefits of their project once it is implemented. Following the successful drilling, testing, and construction of Well No. 3 the quantifiable benefits will be the achievement of a pumping rate of at least 50 gpm. Wells located in and around the study area could be capable of producing up to 150 gpm, depending on the length of the screen interval and well efficiency. The two Village production wells (Wells 1 and 2) were initially reported to each produce 70 gpm. Well 1 was test pumped at 90 gpm, but due to the presence of a nearby low-permeability boundary (only about 45 minutes into the pumping test) its pumping was limited to 70 gpm. The current reported low production rate of 20 gpm is possibly due to a combination of factors, including the low-permeability boundary that together with a pinching out of the Abo/Yeso Formation to the southeast suggests local compartmentalization may limit recharge (John Shomaker & Associates, 2017).

A second quantifiable benefit will be a measurement of water quality. Reported water quality issues for the study area include elevated sulfate, chloride, fluoride, iron, manganese, nitrate, hardness, and total dissolved solids (TDS) concentrations. Elevated concentrations of TDS, nitrate, and water hardness are found in USGS-sampled local wells screened both near the water table and deeper. Elevated concentrations of sulfate, chloride, iron, fluoride, and TDS are also noted in USGS-sampled wells. There appears to be an increase in TDS concentration to the east (up-gradient) as the Abo/Yeso Formations receive recharge from the Madera Formation. Gross alpha concentration at Village Well 2, completed at the northern Village limits, is elevated: The gross alpha concentration of 18.4 pCi/L was adjusted by subtracting the uranium activity in pCi/L, as per EPA citation (EPA, 2007, section 141.66). This resulted in a net or adjusted gross alpha concentration of 13.7 pCi/L, which is below the primary drinking water standard. To avoid elevated gross alpha concentrations in Well No. 3, borehole logs (geophysical and cuttings) will be collected and carefully analyzed prior to selecting the final depths for well screen placement. The quantifiable benefit will be the achievement of a gross alpha concentration at or below 14 pCi/L.

Evaluation Criteria

Project Benefits

Will the project provide an additional water supply? If so, what is the estimated quantity of additional supply the project will provide and how was this estimate calculated?

The project will make additional water supplies available for the Village of Tijeras residents, which will be essential during time of drought. Since Well No. 1 is slowly nearing inoperability, this project will bring long-term resilience to drought for the Village of Tijeras by providing a supplemental water source to Well No. 2, the Village's only reliable municipal well. The new well is expected to produce 50 to 100 gallons per minute.

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

Currently, Well No. 1 supplies about 35% of the Village's supply. At the lower end of the expected productive capacity (50 gpm), Well No. 3 is anticipated to produce about 50% of the total water supply. However, with additional operational flexibility allowed by the new well (described below) the operators will be able to vary the distribution of water from Well No 2 and Well No. 3, based on well performance.

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

With the impending loss of Well No 1, Well No. 3 is critical to maintain a supply of water to the Village's residents. Furthermore, once Well No. 1 is no longer viable, the Village will be reliant upon one source of water. The NMED Drinking Water Bureau standards require that at least two sources be available, to provide redundancy should one of the wells go out of service.

Will the project improve the ability to deliver water during drought or access other sources of supply?

The new well is planned to be drilled deeper than the existing Village wells in order to provide more drought resilience. Deeper aquifers tend to be less prone to water-level decline during droughts than shallow aquifers.

If so, how will the project increase efficiency or operational flexibility?

Existing Well No 1 can only serve the Tank 1 pressure zone, which represents less than half of the Village service connections. Well No. 3 will be connected to the system in such a way that it and existing Well No 2 can serve the entire system, providing better redundancy and operation flexibility.

What is the estimated quantity of water that will be better managed as a result of this project? How was this estimate calculated?

It is estimated that about 15 acre feet of water (approximately half of the Village's current demand) will be better managed due to this project. The estimate is based on the expected use of water from the new well to supply half of the Village's demands. Management improvements include increased efficiency of a properly-designed well and pump, ability to measure water levels in the well for tracking and managing drawdown, and ability to route the water to anywhere in the system it is needed.

How will the project increase efficiency or operational flexibility?

The project will provide an alternate water source to the Village's system so that if Well No. 1 or No. 2 fails the Village will not lose its capacity to provide water to residents and businesses.

What percentage of the total water supply does the water better managed represent? How was this estimate calculated?

Approximately 50%, based on current demands and the expected production capacity of the new well.

Provide a brief qualitative description of the degree/significance of anticipated water management benefits.

Since its incorporation, the Village has struggled to maintain a steady, reliable water supply for all of the activities that rely on the Village's water system. During moments of peak demand or emergency fire response, the water system becomes extremely stressed and at times has come to near exhaustion. The Village views Well No. 3 as an extremely high priority for emergency response and toward reducing the risk of an exhausted water system unable to meet the needs of the residents.

Will the project make new information available to water managers? If so, what is that information and how will it improve water management?

The project includes installation of water level measurement (pressure transducer) which will allow water managers to measure and track well water levels. The information will allow the managers to monitor well performance and aquifer levels, which in turn will inform them when it is necessary to rest or rehabilitate the well.

Will the well be used as a primary supply or supplemental supply when there is a lack of surface supplies?

The proposed Well #3 will provide supplemental supply to the existing Well #2. The Village does not use surface supplies.

Please provide information documenting that proposed well(s) will not adversely impact the aquifer it/they are pumping from (overdraft or land subsidence). At a minimum, this should include aquifer description, information on existing or planned aquifer recharge facilities, a map of the well location and other nearby surface water supplies, and physical descriptions of the proposed well(s) (depth, diameter, casing description, etc.). If available, information should be provided on nearby wells (sizes, capacities, yields, etc.), aquifer test results, and if the area is currently experiencing aquifer overdraft or land subsidence.

Following drilling and construction, the new well will be tested for capacity, efficiency and aquifer properties. Both, step and long term constant rate pumping tests will be performed. The information will be used to properly size the pump for well capacity and to project the long-term sustainable yield. This information, along with ongoing observations of the water level in the well, will be used to manage well withdrawals to ensure that the aquifer is not overdrafted.

Aquifer properties are derived from pumping tests in the Village of Tijeras study area and include a range of transmissivities between 6 and 5,500 ft²/day. Using an average Abo/Yeso Formation thickness of 1,000 ft, this results in hydraulic conductivities between 0.01 and 5.5 ft/day. [Shafike and Flanigan \(1999\)](#) estimated hydraulic conductivities of between 0.01 and 0.50 ft/day and transmissivities between 50 and 300 ft²/day. A contractor performed pumping tests on Abo Formation wells near Placitas, 15 miles north and in a similar geologic setting, and calculated an average transmissivity of 170 ft²/day. The average specific capacity of ten Abo/Yeso Formation wells was 0.70 gpm/ft of drawdown.

Table 1 - Summary of Hydraulic Properties in the Village of Tijeras Study Area

Well	Test Pumping Rate (gpm)	Specific Capacity (gpm/ft)	Transmissivity (ft ² /day)	Total Screened Area (ft)	Hydraulic Conductivity (ft/day)
Well 1 Replacement	120	0.45	530	73	1.1
Well 2	50	0.47	330	60	0.7
Shafike and Flanigan model	-	-	50-300	-	.01-.50
Bartolino Summary	-	-	6-5, 500	-	.01-5.5
Placitas Abo/Yeso wells	3-33	0.70	14-455	40-60	3.3

Please describe the groundwater monitoring plan that will be undertaken and the associated monitoring triggers for mitigation actions. Describe how the mitigation actions will respond to or help avoid any significant adverse impacts to third parties that occur due to groundwater pumping.

The NM Office of the State Engineer (OSE) issued a permit in October 2018 which allows the Village to divert groundwater from the new well in an amount not to exceed existing water rights. In issuing the permit, the OSE has determined that the new well will is not expected to

impair existing water rights or domestic wells. Nevertheless, Well No. 3 will be instrumented with a pressure transducer to measure and track water levels in the well and aquifer. If excessive drawdown occurs (the trigger point will be determined during well testing) the Village will reduce pumping from Well No. 3 and utilize existing Well No. 2 to make up the difference. If nearby wells are adversely impacted by the new well, the Village will consider providing water service to the affected party.

Nexus to Reclamation

How is the proposed project connected to a Reclamation project or activity?

The proposed project is not connected to any know Bureau of Reclamation projects.

Will the project benefit any tribe(s)?

This project will not benefit any tribal entities.

Does the applicant receive Reclamation project water?

The applicant does not receive Reclamation water.

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

The project is not located on Reclamation lands or involve Reclamation facilities.

Is the project in the same basin as a Reclamation project or activity?

The project is located in the same basin as the Middle Rio Grande Project.

Will the proposed work contribute water to a basin where a Reclamation project is located?

Some of the water diverted by the proposed well will be discharged into the sanitary sewer system, which is routed for treatment at the Albuquerque Bernalillo County Water Utility Authority (ABQWUA) Southside Water Reclamation Plant. The effluent discharged from the plant contributes water to the Rio Grande, where the Middle Rio Grande Project is located.

Department of the Interior Priorities

The proposed project contributes to the Department of Interior priorities by restoring trust with local communities and emergency response organizations. The project also helps strike a regulatory balance between the administrative and regulatory burden imposed on the public in the form of the Safe Drinking Water Act. Most importantly, this project helps modernize infrastructure by constructing new infrastructure with the intention of replacing failing infrastructure.

Drought Planning and Preparedness

Historically, the Village of Tijeras administrators have always remained wary of potential drought impact, especially during emergency fire situations. In New Mexico the past 20 years have been marked significantly by drought and as the Village grows so is the urgency to plan for the next period of drought. Toward this end, the Village established a Drought Contingency Plan which addresses the five primary components related to drought planning: 1) Drought Monitoring, 2) Drought Vulnerability Assessment, 3) Drought Mitigation Measures, 4) Drought Response Actions, and 5) the Operational and Administrative Framework for Implementation. In order to develop the plan, the Village's formed a Drought Impact Team, which is an informal group comprised of Village administrators, local agency leads, and an engineering consultant. The Drought Impact Team worked with the Village Council and members of the public to develop proper drought response actions and the operational/administrative framework for administration. The Village's Drought Contingency Plan has been included as an attachment to this application for your reference.

Severity of Actual or Potential Drought Impacts to be addressed

The Village of Tijeras is located in an area designated abnormally dry according to the national [Drought Monitor by the University of Nebraska](#). This region of the United States has historically experienced periods of drought and in the future, this area is also projected for [drought to persist](#). The severity of actual drought impacts are tremendous when considering the area's vulnerability to wild fires with the 2016 [Dog Head Fire](#) being the most recent reminder of the Village's exposure to this extreme risk. Sudden droughts like the one in 2011, can potentially put all of the residents of the Village at risk of having access to no water if Well No. 2 becomes dysfunctional.

Firefighting is a critical service at risk due to potential drought. The Village water system is used by the local fire department, Bernalillo County Fire Department, Sandia Ranger's Station, and La Madera Fire Department, as it plays an essential role in keeping the Village as well as nearby surrounding areas safe from the spread of wildfire. The Village does not have access to any alternative water source in the case of emergency, therefore, establishing a reliable municipal well system is critical to ensure the safety and wellbeing of the area's residents.

Project Implementation

The Village of Tijeras has made significant strides toward making this project a reality and has worked to secure non-federal funding, obtained permits from the State Engineer, and developed preliminary engineering reports and bidding documents (for the well drilling). The Village plans to utilize non-federal funds to complete the well drilling, professional services for oversight of well drilling, electrical power extension, and design of well pumping and disinfection facilities. The Village is requesting \$673,000 from the BOR-Drought Resiliency Program to complete the construction of the well pumping and disinfection facility. If not awarded, the Village would be forced to cap the newly constructed well and wait until additional funds have been identified to complete the project.

PROPOSED PROJECT SCHEDULE	
MILESTONE	MONTH/YEAR
Phase 1 – Well Drilling Design	July 2019 - September 2019
Phase 1 – Well Drilling Bid and Award	October 2019 – December 2019
Extend Electrical Power	November 2019 – June 2020
Phase 1 – Well Drilling Construction	January 2020 – April 2020
Phase 2 – Well Pumping and Disinfection Facility Design	January 2020 – May 2020
Phase 2 - Well Pumping and Disinfection Facility Bid and Award	June 2020 – August 2020
Phase 2 – Well Pumping and Disinfection Facility Construction	October 2020 – January 2021

Project Budget

Funding Plan

For the past few years, this project has been listed as the number one priority for the Village as part of its annual Infrastructure Capital Improvement Plan that is submitted to the state local government division. For this reason, the Village has been successful in securing partial funding at the state-level while also leveraging local funds from the Village's reserves. In 2018, the Village secured \$50,000 (attached Grant Agreement 18-C2234-STB) for the location study, testing and plan for Well No. 3 of which approximately \$20,000 has been obligated toward the design. During the 2019 State Legislative session, \$250,000 (attached Senate Bill 280 p.96-97) in state capital outlay funding for the construction of Well No. 3 was secured with a grant agreement currently pending execution. To demonstrate local support and emphasize the importance of this project, the Village has committed an additional \$225,000 from its reserve fund and plans to secure at least \$148,000 from the State legislature during the 2020 session to ensure it can commit the full required non-federal match for the Drought Resiliency Program. These funds will match 50% of the proposed project costs.

Budget Proposal

Non-Federal Matching Funds	AMOUNT
2018 NM State Capital Outlay - Grant Agreement 18-C2234-STB	\$50,000
2019 NM State Capital Outlay - Senate Bill 280 p.96-97	\$250,000
Village of Tijeras Reserve Fund Allocation	\$225,000
2020 NM State Capital Outlay Request	\$148,000
TOTAL PROJECT COST	\$673,000
SOURCE	
Costs to be reimbursed with the request federal funding	\$673,000
Costs to be paid with non-federal funds	\$673,000
TOTAL PROJECT COST	\$1,346,000

Previously Incurred Project Costs

Since the initial \$50,000 was authorized as part of the 2018 state legislative session, the funds have been available since July 1, 2019. These funds are currently being expended toward Phase One – Well Drilling Design. For the planning and design phase of this project, the Village has contracted with an engineering firm in order to obtain final design and permitting documentation for the well drilling, testing, & construction. The engineer completed the final design documentation and has received approval for the well construction from the State Engineer and the New Mexico Environment Department Drinking Water Bureau. The previous incurred amount is approximately \$20,000 and the remaining \$30,000 has been included in the proposed project budget for drilling oversight and permitting.

Budget Details

Budget Item Description	Computation		Quantity Type	Total Cost
	\$/Unit	Quantity		
Professional Services				
Phase 1 Well Drilling				
Design	\$20,000	1	LS	\$20,000
Drilling Oversight and Permitting	\$30,000	1	LS	\$30,000
Phase 1 Subtotal				\$50,000
Phase 2 Well Pumping and Disinfection Facilities				
Design	\$25,000	1	LS	\$25,000
Survey, Geotechnical, SUE	\$31,000	1	LS	\$31,000
Bidding and Construction				
Administration	\$27,000	1	LS	\$27,000
Construction Observer	\$12,000	4	MO	\$48,000
Phase 2 Subtotal				\$131,000
Professional Service Total				\$181,000
Construction				
Phase 1 Well Drilling				
Mobilization and Demobilization	\$30,000	1	LS	\$30,000
Well Drilling and Construction	\$270,000	1	LS	\$270,000
Geophysical Logging	\$20,000	1	LS	\$20,000
Well Testing and Disinfection	\$80,000	1	LS	\$80,000
Phase 1 Subtotal				\$400,000
Phase 2 Well Pumping and Disinfection Facilities				
Mobilization and Demobilization	\$25,000	1	LS	\$25,000
Well Pump	\$50,000	1	LS	\$50,000
Well House	\$125,000	1	LS	\$125,000
Process and Yard Piping	\$70,000	1	LS	\$70,000
Electrical, Mechanical and Plumbing	\$115,000	1	LS	\$115,000
Disinfection System	\$35,000	1	LS	\$35,000
Grading, Drainage and Site Improvements	\$90,000	1	LS	\$90,000
Other Construction Requirements	\$35,000	1	LS	\$35,000
Phase 2 Subtotal				\$545,000
Construction Total				\$945,000
Other				
Electrical Power Extension				\$50,000
Contingency for Change Orders				\$75,000
New Mexico Gross Receipts Tax				\$94,992
TOTAL ESTIMATED PROJECT COSTS				\$1,346,000

Budget Narrative

Materials and Supplies

Materials/supplies will be furnished and installed under a construction contract and has been included in the attached Phase One and Phase Two Cost Estimates.

Contractual

Contractual costs include professional services by an engineering consultant and construction services by a contractor. These have both been included in the attached cost estimates.

Other

Electrical power extension fees will be paid to the Public Service Company of New Mexico (PNM) to provide electricity to the site and allow for the construction of Phase two.

Contingency funds have been budgeted for change orders to the project.

New Mexico gross receipts tax (7.5933% average rate) has been applied to all professional services, construction, and other work.

NOTE: *A detailed Budget Proposal in Excel Sheet format has been attached to this application for your reference which includes the detailed engineering cost estimate for the project.*

Environmental and Cultural Resources Compliance

1. 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.

The proposed project will take place on Village property located adjacent to the US Historical Route 66 or State Highway 333, a commonly travelled roadway that travels through the Village. Two residential streets boundary the property on the south and east ends. There are expected to be minimal impacts to the surrounding environment, if at all.

2. 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 proposed project will not adversely impact threatened and endangered species.

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

No wetlands are present.

4. When was the water delivery system constructed?

The Village was incorporated in 1973 and drilled its first municipal well in 1997.

5. Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., head gates, 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.

No.

6. 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.

No.

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

No.

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

No.

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

No.

10. 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.

Required Permits or Approvals

Office of the State Engineer

The NM Office of the State Engineer (OSE) issued a permit in October 2018 (attached) which allows the Village to divert groundwater from the new well in an amount not to exceed existing water rights. In issuing the permit, the OSE has determined that the new well is not expected to impair existing water rights or domestic wells.

New Mexico Environmental Department – Drinking Water Bureau

In February 2019, the Village submitted an application with the New Mexico Environment Department – Drinking Water Bureau to modify the Village’s public water supply system. The application included an inventory of potential contamination sources that was conducted utilizing two distinct methods that would identify potential contaminant water ways and land uses. The Village received conditional approval from the New Mexico Environment Department in June 2019 (attached).

Bernalillo County

Bernalillo County requires that a County well permit application be submitted. The application will not receive review and comment from the County. It is for information only. A contractor will prepare and submit the County well permit.

In addition, the well construction contractor will be required to submit a building permit package to the Bernalillo County Zoning Building and Planning Department.

Public Service Company of New Mexico (PNM)

An application to PNM will be required for extending electrical service to the site.