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Grant Application

**Small-Scale Water Efficiency Project for the
Pueblo of Jemez**

Submitted to:



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
POLICY AND ADMINISTRATION
DENVER, COLORADO

***WATERSMART: SMALL SCALE WATER EFFICIENCY FOR FISCAL YEAR 2017
FUNDING OPPORTUNITY ANNOUNCEMENT No. BOR-DO-17-F011***

April 27, 2017

Submitted by:

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1 TECHNICAL PROPOSAL AND EVALUATION CRITERIA

Date: April 27, 2017
Applicant: Pueblo of Jemez
Address: Jemez Pueblo, Sandoval County, New Mexico

1.1 Executive Summary

The Pueblo of Jemez is pleased to submit this proposal to the United States Bureau of Reclamation (USBR) WaterSMART Small-Scale Water Efficiency program. The Pueblo believes that there is a clear need to take a prominent role in managing the water resources that sustain their culture and livelihoods. The proposed project is expected to be completed in one year, finishing by June 2018. The project’s goal is to install water meters on all homes and commercial buildings that currently do not have meters. Expected results of this project include increased collection of water payments, accurate accounting of water usage, decreased O&M costs, and better water management and sustainability.

1.2 Background Data

The Pueblo of Jemez is located in North Central New Mexico in Sandoval County and is comprised of approximately 89,000 acres of Tribal Trust Land. Although the Reservation is divided into three large parcels, the exterior boundaries of each are contiguous, without the presence of fee-lands or resident non-Tribal Members. The sole population center of the Pueblo is the village of Walatowa. The economy and livelihood of the people of the Pueblo of Jemez primarily consists of livestock grazing and subsistence farming. The primary source of water to support these activities is the Jemez River and alluvial groundwater associated with the river, formally referred to as the Jemez River Valley Alluvium. The success and livelihood for the people of the Pueblo of Jemez is thus dependent on adequate quantity and acceptable quality of water resources derived from the Jemez River and its associated alluvial system. In addition, other water resources within the Jemez Ancestral Domain are vital to traditional Jemez culture. The protection and reasonable development of these resources is of utmost importance.

1.2.1 Hydrology

The surface water resources of the Pueblo of Jemez consist mainly of the Jemez River. The river drains an area of about 1,050 square miles of mountain and semi-desert terrain before joining the Rio Grande. The Jemez River exhibits highly variable annual flows, which vary from 16,600 acre-feet (AF) to 154,000 acre-feet; average annual flow is approximately 55,800 acre-feet. Average monthly flows are illustrated in Figure 1. Approximately 70% of the Jemez River’s annual flow occurs in March, April, May, and June, resulting in relatively low flows throughout the remaining months; during the summer period between July and September, an average of 12% of the annual streamflow is recorded. Low flows during the summer months are caused by diversions upstream of the Reservation that are used to satisfy the high crop water demand. The largest water user upstream of the Pueblo is the Nacimiento Community Ditch Association (NCDA), which diverts up to 1,335 acre-feet per year to irrigate 715.6 acres. Because the highest irrigation demands occur during the growing season between May and October and annual streamflow is relatively low from June to October, irrigation water shortage generally occurs. Annual gage flow data further shows surface water from the Jemez River is relatively unreliable and highly variable throughout the years, see Figure 2.



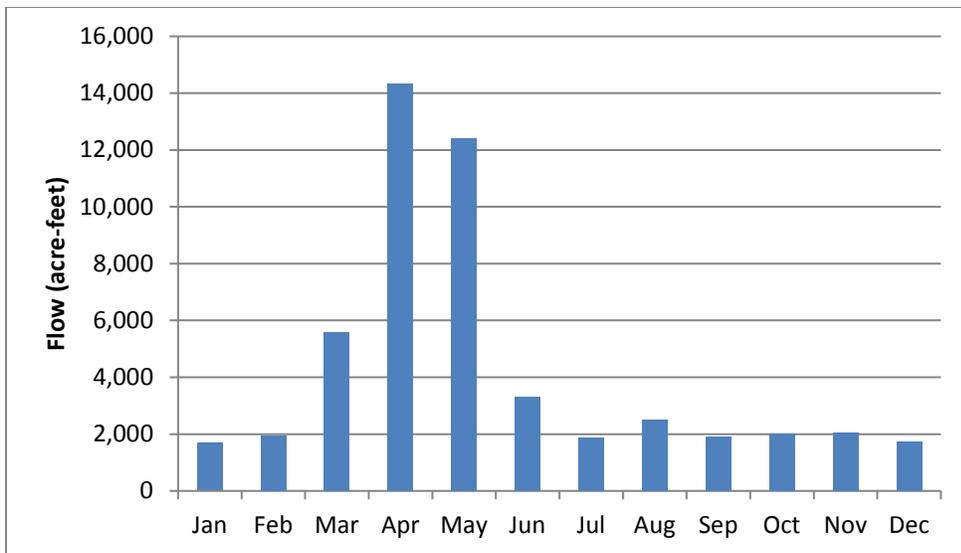


Figure 1: Monthly streamflow for the Jemez River near the Jemez Gage (USGS Gage 08324000)

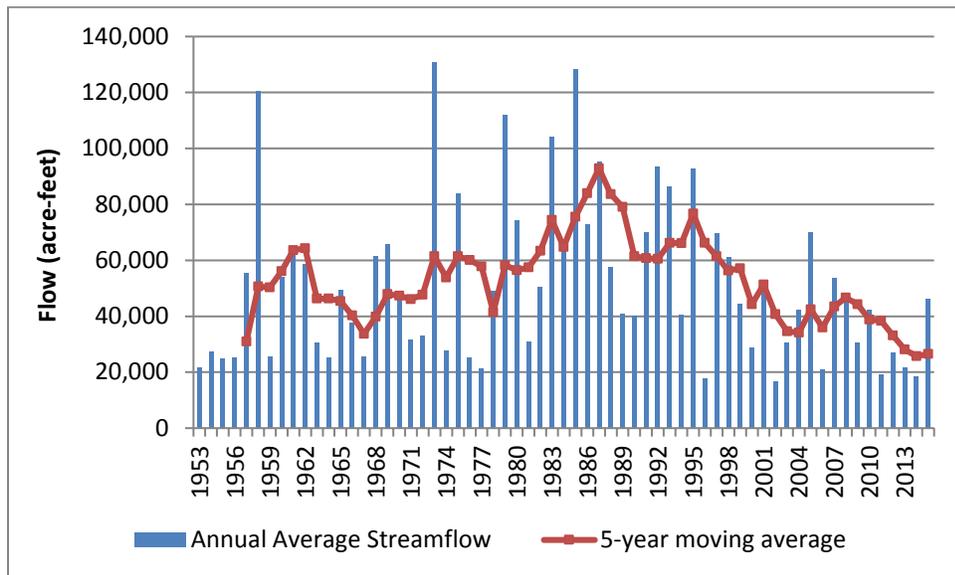


Figure 2: Annual streamflow for the Jemez River near the Jemez Gage (USGS Gage 08324000)

Studies have shown that there are two main groundwater supply source options for the Pueblo: (1) the relatively shallow Jemez River Alluvial aquifer, and (2) the deeper Santa Fe Group aquifer. The alluvial aquifer is a shallow aquifer reaching depths of up to 80 feet and runs parallel with the river valley. This aquifer is in direct hydrologic connection to the Jemez River and undergoes seasonal water level fluctuations in tune with the seasonal river flows. Ground water diverted from the Jemez River alluvium is considered a diversion from the Jemez River. The Santa Fe Group aquifer is composed of several porous sandy formations (Zia Sands) and is the principal deep aquifer in the basin. The aquifer is approximately 800 feet deep near the southern boundary of the Jemez Reservation. The Pueblo currently uses the Jemez River Alluvial aquifer for all domestic, municipal, and commercial purposes.





The Pueblo of Jemez is currently served by two wells (typically referred to as IHS-1 and IHS-3) drilled into the Jemez River alluvium, with both wells each producing approximately 300-400 gpm. The BIA performed the most comprehensive aquifer pump test of the alluvial aquifer to date in 1978, which included two pumping wells (named PW-3 and PW-4) at rates of 500 gpm and 350 gpm, respectively. The results of the aquifer testing showed a water yielding layer of 45 feet in the alluvium under semi-confined conditions, and a specific capacity of 9 to 27 gpm per foot of drawdown. Studies completed indicate that the Jemez River alluvium is a productive water supply source and far more reliable than the surface water resources. However, the Tribes are concerned the supply source is not sufficient to sustain the ever increasing population growth on the Reservation. Figure 3 shows a map of the Pueblo's water resources including the rough extents of both aquifers relative to the Pueblo village.

1.2.2 Water Rights

The adjudication of water rights of all users in the Jemez River Basin in New Mexico, including the Pueblos of Jemez, Zia, and Santa Ana is being conducted under the *United States vs. Abousleman* lawsuit, which was filed in 1983. In 1991, the Special Master issued a report granting the Pueblo of Jemez a water right of about 8,413 acre-feet (excluding conveyance and distribution losses) to irrigate 2,432 acres of historically and presently irrigated lands. However, the Special Master's ruling did not consider future practicable irrigable acreage (PIA) water uses for the Pueblo of Jemez. In December 1996, a motion to adjudicate the irrigation water requirement was filed by the State of New Mexico. The motion, which was not opposed by the United States and/or the Pueblos, presented an annual water duty of 3.46 acre-feet per acre and an additional 70 percent conveyance and distribution efficiencies. The resulting water duty is 4.94 acre-feet per acre and accordingly, the Pueblo of Jemez water right, excluding PIA and non-agricultural water uses, as recommended by the Special Master, is about 12,000 acre-feet.

In July of 1996, the Pueblos of Jemez and Zia, Non-Indian Water Users Association, and the United States signed an agreement that implemented an irrigation rotation schedule between the Pueblos and non-Indian users in the basin during times of water shortage. The joint efforts of the various parties also resulted in the unprecedented appointment of a Water Master to enforce the agreement. The schedule allows that the Jemez and Zia Pueblos have the senior most water rights in the basin. At the start of each irrigation season, the Pueblos and the various upstream ditch associations will agree on a starting rotation schedule. The starting schedule will be based on the projected irrigation needs of the Pueblos (on the basis of irrigated acreage, soil moisture, etc.) and an evaluation of the predicted river runoff as presented in the Basin Outlook reports of NRCS. During the course of the irrigation season, conditions will continue to be monitored and the rotation schedule adjusted, if necessary. The rotation schedule was developed based on the principle that the Pueblos should receive their full amount required first in priority.



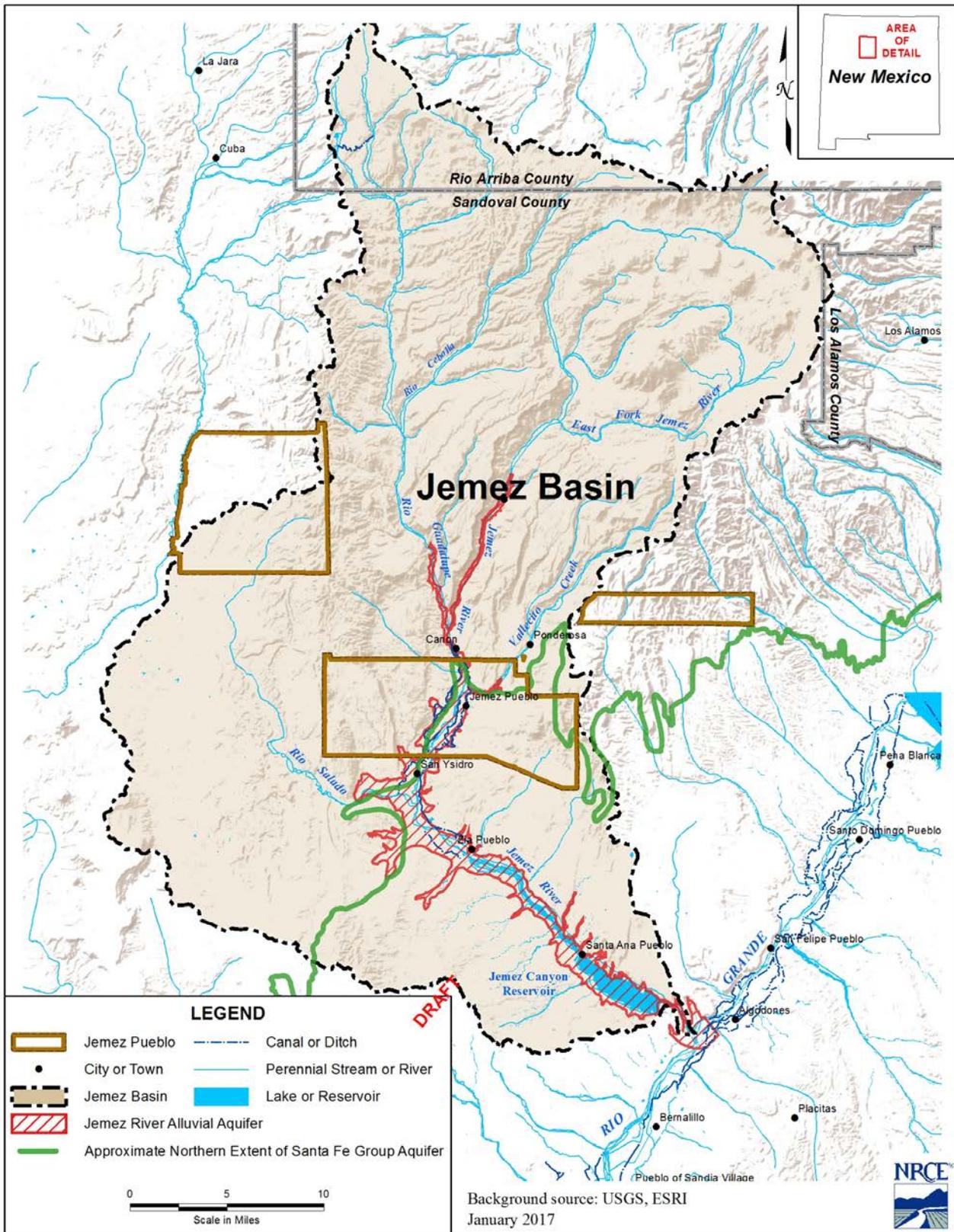


Figure 3: Water Resources on the Jemez Pueblo Reservation



1.2.3 Current and Projected Water Uses

Water demands for the Pueblo of Jemez can be divided into two main categories, non-agricultural and agricultural. An assessment of existing and projected demands for each of these sectors is presented in this section.

Non-agricultural Water Use

Non-agricultural water use includes water for domestic, municipal, commercial, religious, industrial, and recreational purposes. The most important water use sector for the Jemez Pueblo is municipal use, which includes residential, commercial, and public uses. Groundwater is the source for nearly all of the municipal and domestic water supply on the Pueblo. The Jemez Community Water System currently serves approximately 520 residential units, 20 administrative units, and 4 academic institutions. According to the water needs assessment master plan prepared in 2002, the service population was 1,900. Wells and springs also provide water for livestock and wildlife. As the resident population and economy of the Pueblo grows, non-agricultural water use can also be expected to increase.

The future non-agricultural water needs of the Pueblo were projected to the year 2050 based on member population data obtained from American Indian Population and Labor Force Reports (1982 - 2005), which were estimated to grow at the historical rate of about 2.92 percent per year, presented in Table 1.

Table 1: Population of the Jemez Pueblo from 1982 to 2005
<https://www.bia.gov/WhatWeDo/Knowledge/Reports/index.htm>

Year	BIA Population Data	BIA Growth Rate
1982	1,889	-
1985	2,177	5.08%
1987	2,378	4.62%
1989	2,378	0.00%
1991	2,642	5.55%
1993	3,030	7.34%
1995	2,885	-2.39%
1997	3033	2.56%
1999	3131	1.62%
2001	3486	5.67%
2003	3630	2.07%
2005	3628	-0.03%
Average		2.92%

The Jemez Pueblo membership population was then adjusted for a percentage assumed to be residing within the Pueblo. According to the United States Census Bureau, the actual number of people living on the Jemez Pueblo was 1,953, which is about 56 percent of the total enrolled membership population reported in 2001. It is assumed that this percentage will increase, reaching





80 percent by the end of the planning period in 2050. Table 2 shows the estimated population growth for the Jemez Pueblo 2000 to 2050.

Table 2: Projected Population Growth for the Jemez Pueblo, 2000 to 2050

Year	Total Membership Population	Percent Resident Population	Resident Pueblo Population
2000/2001*	3,486	56.02%	1,953
2005	3,588	58.42%	2,096
2010	3,692	60.82%	2,246
2015	3,800	63.22%	2,402
2020	3,911	65.61%	2,566
2025	4,025	68.01%	2,737
2030	4,142	70.41%	2,917
2035	4,263	72.81%	3,104
2040	4,388	75.20%	3,300
2045	4,516	77.60%	3,504
2050	4,647	80.00%	3,718

*The total membership population is based on 2001 BIA data and the resident pueblo population is based on 2000 Census data.

There is no existing data available on domestic water use on the Jemez Pueblo. Water metering would greatly help the Pueblo in quantifying domestic use. However, it is reported that the existing IHS-1 supply well, with a capacity of 210 gpm, typically operates 12 hours a day (Duffy, 1999). On this basis, and using an estimated 2000 service population of about 1,953, the average daily demand can be computed as about 77 gpcd. To derive a conservative estimate of water demand, an initial per capita demand rate of 80 gpcd was assumed as reasonable to reflect 2000 conditions. Over the ensuing 50 years of the planning period, however, it is anticipated that this rate will rise as a reflection of the economic development and other demand growth. It is assumed that the per capita demand rate will rise to the modest value of 120 gpcd by the year 2050. The projected future demand for total residential water use may be estimated by multiplying the population estimate on the Pueblo by the rate of water use per person. Projected populations and residential water demand through the year 2050 are shown in Table 3.

Contemporary Jemez Pueblo cultures have maintained many of the Indian traditions and religious practices. Feasts are often celebrated during various times of the year in Jemez Pueblo. During these feast days, the non-resident population returns to the reservation to participate in the feasts. Because feasts are associated with a 10% increase in water use per person, additional water will be required during feast days. There are reportedly 93 feast days per year.





Table 3: Projected Populations and Residential Water Demand

Year	Projected Resident Tribal Population	Estimated Water Demand (gpcd)	Water Use Estimates		
			(gpd)	(million gallons/year)	(Af/yr)
2000	1,953	80	156,240	57	175
2005	2,010	84	168,837	62	189
2010	2,069	88	182,037	66	204
2015	2,129	92	195,863	71	219
2020	2,191	96	210,340	77	236
2025	2,255	100	225,496	82	253
2030	2,321	104	241,356	88	270
2035	2,388	108	257,950	94	289
2040	2,458	112	275,307	100	308
2045	2,530	116	293,457	107	329
2050	2,604	120	312,432	114	350

Agricultural Water Use

There are approximately 2,400 acres of presently or historically irrigated lands. All of the cropped lands are surface irrigated with furrows, basins, or borders. The crops are primarily used by Pueblo members or their livestock and are generally not produced for commercial purposes. There is an ongoing effort to encourage traditional farming and the Pueblo has recently had an increase in irrigated allotments. In general, the amount of irrigated acreage is limited by the highly variable water supply.

The Jemez Pueblo irrigation system is a gravity flow system of ditches and pipelines that divert from the Jemez River. The main diversion is located on the Jemez River approximately one mile north of the Pueblo of Jemez boundary. A second diversion is located on the Reservation and diverts water to the east side of the river. The irrigation system has 23 miles of ditches with 18 miles being concrete lined or piped.

The Report of the Special Master also presents a Special Finding of the irrigated acres and corresponding priority date (or date of first use) for the Jemez Pueblo as shown in Table 4.





Table 4: Irrigated Acres from Report of the Special Master

Irrigated Acres	Priority Date
1,537.1	First priority
425.9	1915
96.5	1917
59.5	1925
126.0	1932
60.6	1935
126.0	1983
Total = 2,431.6 acres	

Past Relationship with USBR

The Pueblo of Jemez has a long working relationship with USBR. The USBR has been essential in assisting the Pueblo in attaining and managing its water rights. The following table gives some recent activities we have worked on together.

Table 5: Collaborative USBR and Pueblo of Jemez projects.

Proposal	Project	Date
Water Supply Appraisal Investigation- Part of Rural Water Program Appraisal?	Rural Water Supply Program is to help remedy existing water supply problems experienced on the Pueblo and to support its future water supply planning efforts. Over the past decade, the Pueblo has taken active steps to improve upon the dependability and quality of its water supply, and the proposed project represents a continuation of these efforts.	July 2010
East Side Ditch Improvement Study	The Pueblo irrigation project consists of three main ditches: West Main Ditch, East Side Ditch, and Pecos Ditch. The Pueblo is applying for funding from the U.S. Bureau of Reclamation to complete survey work and engineering design of improvements to the East Side Ditch.	August 2010
Abousleman Water Rights Settlement Negotiation	The <i>United States v. Abousleman</i> case relates to the adjudication of water rights of all users in the Jemez River Basin in New Mexico, including the Pueblos of Jemez, Zia, and Santa Ana. The water resources of the Jemez Basin are being threatened by the rapid expansion of communities such as Rio Rancho and Bernalillo. The Pueblo of Jemez is actively involved in providing technical, Tribal, and legal support for the adjudication of all the non-Indian water rights in the Rio Jemez as part of the <i>United States v. Abousleman</i> case.	June 2005
Owl Springs Dam and Reservoir Feasibility Study	The proposed Owl Springs Dam and Reservoir is one of the settlement options discussed by the federal negotiation team, which was appointed to assist the Jemez, Zia and Santa Ana Pueblos pursue a negotiated settlement of their water rights. As part of Federal negotiation team efforts, the United States Bureau of Reclamation (USBR) investigated three potential dam sites in the Jemez Basin at the request of the Pueblo of Jemez. Owl Springs dam site was considered most practical, and a feasibility level study was contracted.	Sept. 2002
Water Master Plan/Water Needs Assessment/Drought Contingency Plan Project	The purpose of this plan is to: Examine existing community and irrigation water supply systems; develop projected demand through a 50-year planning period to assess future demands on both systems; inventory of water resources available to the Pueblo; create a development plan capable of meeting projected future requirements.	Oct. 2005





Development of Jemez Basin Surface Water Operations Model	The purpose of this plan is to develop a Riverware model for the basin.	March 2002
Jemez Basin-Wide Irrigation System Improvement Study	The study evaluated the condition of the irrigation system and identified areas that needed to be fixed.	March 2002
Rural Water Program Appraisal Investigation	Task 1: Meetings; Task 2: Future Water Demand Estimation; Task 3: Water Source Investigation; Task 4: Existing Water System Assessment; Task 5: Alternatives Assessment and Selection; Task 6: Report Preparation	Nov. 2010

1.3 Technical Project Description

1.3.1 Need for Assistance and Problem Statement

The Jemez Pueblo understand that it is imperative to continually protect and preserve valuable water resources to ensure that these assets remain viable and sustainable for current and future Tribal members. The Pueblo currently has a need for assistance to finish installing water meters on all 500+ municipal and domestic water users. Metering will be crucial in assisting the Tribe with efficient water use, sustainable use of natural resources, and coordination of water conservation activities. Funding through this program would greatly enhance the Tribe’s ability to measure and address water inefficiencies. Once 100% meter coverage is achieved, the Public Works Department plans to begin billing customers on a usage-based fee schedule. This development is expected to greatly improve the Public Works Department’s financial situation and overall water management. The U.S. EPA considers water metering a conservation measure and promotes metering in the Water Conservation Plan Guidelines (USEPA, 1998). Additionally, the New Mexico Office of the State Engineer promotes metering in their Water Conservation Guide for Public Utilities (Wilson, 2001).

1.3.2 Status of Existing Community Water System Metering

The Jemez Community Water System currently consists of two municipal water supply production wells (IHS-1, IHS-3), 3 water storage tanks, and a distribution system extending throughout Walatowa. A number of improvements to the system are currently proposed and in various states of implementation. The Pueblo is currently prioritizing installing water meters at all connections to the public water system.

1.3.3 Project Objectives and Activities

The following three objectives and their associated activities were developed to directly address the aforementioned problem statement and the goals pertaining to the WaterSMART Funding Opportunity Announcement No. BOR-DO-17-F011. The results expected from this effort include operable shut-off valves to all residential and commercial connections with the Pueblo, increased collection of water payments, accurate accounting of water usage, decreased O&M costs, and better water management and sustainability.

Objective 1: *Planning and layout of meters for all homes and commercial buildings.* The goal of this objective is to collect existing information to help the Jemez Pueblo systematically identify





the locations on the water service lines of all residential and commercial buildings that require a meter. Construction after 2005 is required to meter, but the Pueblo will confirm that all service lines have meters.

Activity 1.1: Collect existing information, including maps, for meter and shut-off valve location selection. The Public Works Department will provide utility maps, and meter locations will be selected. This activity also includes the identification of all shut-off valves, including inoperable shut-off valves. The Pueblo will repair broken or inoperable shut-off valves prior to meter installation, if necessary.

Objective 2: *Strategize a workplan for meter installation.* The Pueblo leaders and Public Works Department personnel, as well as technical consultants as needed, will plan and prepare a workplan for all construction activities and close out tasks. This includes creating a detailed schedule for installations, hiring construction personnel, and preparing a communication plan for coordinating water shut-off and meter installations.

Activity 2.1: Create coordination schedule with homeowners and business owners for installation of water meters and water shut-off. The Pueblo will conduct a tribal meeting with its members to agree upon a schedule for water shut-offs and meter installations. Additionally, usage-based water billing will be discussed with members for better understanding of water billing and conservation methods.

Objective 3: *Install water meters and data collection software.* Water meter installation will require construction laborers to unearth service lines, fit components to the existing lines, install the water meters, and return the disturbed area back to its original state.

Activity 3.1: Install water meters. Badger manufactured meters will be installed. Appropriate meters will be selected based on pipe diameter and flow requirements for the building.

Activity 3.2: Train Public Works Department in use of water data collected by meters. Meter data will be collected and used by the Public Works Department. Personnel will be trained to collect data, organize the data, and produce water bills based on collected data.

Activity 3.3: Ensure compliance with Indian Health Services specifications and Pueblo of Jemez Tribal Utility Ordinance. The Pueblo will appoint a compliance officer to ensure each activity complies with IHS and OSHA safety regulations during construction.

1.4 Evaluation Criteria

1.4.1 Evaluation Criterion A – Planning Efforts Supporting the Project

Does the proposed project implement a goal or address a need or problem identified in the existing planning effort? The Pueblo of Jemez has an existing Water Needs Assessment, Master Plan, and Drought Contingency Plan (NRCE, 2002) that was designed for a 50-year planning period. Section 5.4.5 of the Mater Plan addresses distribution system future improvements and expansions. Water meters installation is the first recommendation for future improvements.





Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measurements. Table 6.1 of the Master Plan is a prioritized list of near-term improvements for the Pueblo's community water supply system. A Water Meter Installation Program is listed as a first priority activity. The Water Meter Installation Program was selected and prioritized based on the criteria that other water efficiency and management projects stem from the need for accurate data. Water meter data is necessary to determine losses, create a user-based billing system, and prepare for future water needs and studies.

1.4.2 Evaluation Criterion B – Project Benefits

Describe the expected benefits and outcomes of implementing the proposed project. The most important water use sector for the Jemez Pueblo is municipal use, including residential, commercial, and public uses. The existing distribution system is not thought to be subject to excessive losses or water leaks. However, the lack of a comprehensive metering system does not allow a quantification of "lost water". Installing meters on all 500 homes and commercial buildings will allow the Public Works Department to collect vital information about the efficiency of water delivery as well as information for billing users based on their use. This is beneficial for several reasons. First, this allows water users to pay only for the water they use. Studies have shown that metering encourages water conservation because the user feels a responsibility to control their use and therefore influence their water bill. A case study done by the University of California showed that moving from flat-rate billing to usage-based billing resulted in increased water conservation (Baerenklau, 2013).

In addition, the Pueblo of Jemez Public Works Department benefits from metering because they will be able to collect payments to recover operating costs and plan for future water system repairs and O&M costs. Water users will be accountable to pay for water use, which allows the Department to more sustainably manage the Pueblo's water resources. The data collected from meters can be used for future water planning as well as collaboration with other water users in the basin.

1.4.3 Evaluation Criterion C – Project Implementation

Describe the implementation plan for the proposed project. Please include as estimated project schedule that shows the stages and duration of the proposed work. The Public Works Department utilities director and Pueblo leaders will need to conduct meetings for coordination as part of the first two objectives. A workplan will need to be agreed upon and initiated for clear activity implementation and activity responsibility identified. Finally, the public will need to be informed and shut-offs carefully coordinated for meter installations. It is expected that each of these tasks will take a few months for locating shut-off valves and coordinating with home- and business owners for meter installations.

The methodical set of objectives and activities described in detail in Section 1.3.3 will be used to implement this project. Table 6 provides a timeline for the initiation and completion of each of these activities. The timeline corresponds to the start and end dates of Fiscal Year 2017-2018 but may be adjusted based on actual project start date. The proposed project is scheduled to be completed in less than one year. The Pueblo will produce semi-annual and an annual financial and program progress reports for Reclamation in adherence to Section F.3 of the FOA.





Table 6: Schedule of Proposed Objectives

Objective	Activity	2017			Fiscal Year 2018											
		Jul - Sep			Oct - Dec			Jan - Mar			Apr - Jun			Jul - Sep		
		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9
Objective 1 - Planning and layout of meters	<i>Activity 1.1 - Collect Information for meter and shut-off valve locations</i>															
Objective 2 - Strategize a workplan for meter installation	<i>Activity 2.1 - Create coordination schedule</i>															
Objective 3 - Install water meters and data collection system	<i>Activity 3.1 - Install water meters</i>															
	<i>Activity 3.2 - Train Public Works Department</i>															
	<i>Activity 3.3 - Ensure compliance</i>															

Describe any permits that will be required, along with the process for obtaining such permits. Construction that takes place on municipal land will require architectural approval before digging. An architect will be asked to review the site and give approval prior to construction, as well as be on-site during construction.

Describe any engineering or design work performed specifically in support of the project. No engineering design will be required by this project.

Describe any new policies or administrative actions required to implement this project. No new policies or administrative actions are required for this project.

1.4.4 Evaluation Criterion D – Nexus to Reclamation

How is the proposed project connected to a Reclamation project or activity? The Pueblo of Jemez has a long relationship with the Bureau of Reclamation. The USBR has been essential in assisting the Pueblo in maintaining and repairing the more than 23 miles of irrigation system ditches and the irrigation system’s associated dams, siphons, head gates and check dams. The Water Meter Project will not impact the ongoing irrigation system repairs.

2 ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

This Water Meter Project will require earth-disturbing work on all private home and business connections to the main line that do not currently have a meter (constructed before 2005). This includes unearthing pipelines, fitting connections, installing the meters, and returning the area to its previous state (backfill and patching). As previously mentioned, most of this construction is anticipated to take place on private land. As a result, no threatened or endangered species’ habitats will be affected by this activity. Additionally, no wetlands or CWA surface waters exist within the project boundary, nor will the project contribute to the spread of noxious weeds or invasive species.





The Pueblo’s water main and components were constructed in the late 1980s. Since the project is focusing on existing structures without meters, no effects will result on any existing irrigation system components, and none of the buildings are listed as eligible for the National Register of Historic Places. Further, no archeological sites are within the project boundaries. Low income and minority populations will not be disproportionately affected under this project. The applicant for this grant is federally recognized American Indian Tribe; therefore, the impacts on tribal lands were carefully considered and approved.

3 REQUIRED PERMITS OR APPROVALS

Most of the meter installations will take place on private property. Should construction take place on municipal land, appropriate permits or approvals, such as archeological approval, will be obtained on an as needed basis.

4 OFFICIAL RESOLUTION

The official tribal council resolution of the tribal governing body pertaining to this WaterSMART grant will be presented for approval during their May 16, 2017. As per the guidelines in Section D.2.2.7 in the Funding Opportunity Announcement, the endorsed resolution will be submitted within 30 days of the application deadline.

5 PROJECT BUDGET

5.1 Funding Plan and Letters of Commitment

The Pueblo of Jemez requests a 100% federal funding of \$75,000. The Pueblo is committed to contributing the matching \$75,000 to the Water Meter Installation Project as a monetary contribution from the Tribe’s General Fund. No in-kind contributions or costs will be incurred before the start of the project. There is no other funding received from other Federal partners, and there are no other pending funding requests for this project.

Funding Sources	Funding Amount
Non-Federal Entities	
1. Pueblo of Jemez	\$75,000.00
Non-Federal Subtotal	\$75,000.00
Other Federal Entities	
1. Other Federal Subtotal	\$0.00
Other Federal Subtotal	\$0.00
Requested Reclamation Funding	\$75,000.00
Total Project Funding	\$150,000.00

5.2 Budget Proposal





5.3.6 Contractual

No subcontracts are anticipated at this time.

5.3.7 Environmental and Regulatory Compliance Costs

An in-house environmental specialist will be assigned for supervising construction and ensuring IHS and OSHA regulation compliance. The Pueblo's archeologist will also be present for construction when appropriate. Additional funds are not requested at this time, as they are included under Salaries and Wages.

5.3.8 Other Expenses

A 15% contingency was added to cover meter components and unforeseen costs associated with construction activities.

5.3.9 Indirect Costs

This Pueblo's 2016 Indirect Costs Rate is 20.58%.

5.3.10 Total Costs

The total cost of this project will be \$150,000.00.

6 UNIQUE IDENTIFIER

The Pueblo of Jemez is currently registered in the System for Award Management (SAM), and will maintain an active registration in SAM. The organizational DUNS number for the Pueblo is 119699460.

**Indian Organizations
Indirect Cost Negotiation Agreement**

EIN: 85-0213473

Organization:

Pueblo of Jemez
P.O. Box 100
Jemez, NM 87024-0100

Date: January 3, 2017

Report No(s): 17-A-0354

Filing Ref.:

Last Negotiation Agreement
dated July 11, 2016

The indirect cost rate contained herein is for use on grants, contracts, and other agreements with the Federal Government to which Public Law 93-638 and 2 CFR Part 200 apply for fiscal years beginning on or after December 26, 2014 subject to the limitations contained in 25 CFR 900 and Section II.A. of this agreement. Applicable OMB Circulars and the regulations at 2 CFR 225 will continue to apply to federal funds awarded prior to December 26, 2014. The rate was negotiated by the U.S. Department of the Interior, Interior Business Center, and the subject organization in accordance with the authority contained in applicable regulations.

Section I: Rate

Type	Effective Period		Rate*	Locations	Applicable To
	From	To			
Fixed Carryforward	10/01/16	09/30/17	20.58%	All	All Programs

***Base:** Modified total direct costs: Total direct costs, less capital expenditures and passthrough funds. Passthrough funds are normally defined as payments to participants, stipends to eligible recipients, or subawards, all of which normally require minimal administrative effort.

Treatment of fringe benefits: Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs.

Section II: General

Page 1 of 3

A. Limitations: Use of the rate(s) contained in this agreement is subject to any applicable statutory limitations. Acceptance of the rate(s) agreed to herein is predicated upon these conditions: (1) no costs other than those incurred by the subject organization were included in its indirect cost rate proposal, (2) all such costs are the legal obligations of the grantee/contractor, (3) similar types of costs have been accorded consistent treatment, and (4) the same costs that have been treated as indirect costs have not been claimed as direct costs (for example, supplies can be charged directly to a program or activity as long as these costs are not part of the supply costs included in the indirect cost pool for central administration).

B. Audit: All costs (direct and indirect, federal and non-federal) are subject to audit. Adjustments to amounts resulting from audit of the cost allocation plan or indirect cost rate proposal upon which the negotiation of this agreement was based will be compensated for in a subsequent negotiation.

C. Changes: The rate(s) contained in this agreement are based on the organizational structure and the accounting system in effect at the time the proposal was submitted. Changes in organizational structure, or changes in the method of accounting for costs that affect the amount of reimbursement resulting from use of the rate(s) in this agreement, require the prior approval of the cognizant agency. Failure to obtain such approval may result in subsequent audit disallowance.

D. Rate Type:

1. **Fixed Carryforward Rate:** The fixed carryforward rate is based on an estimate of costs that will be incurred during the period for which the rate applies. When the actual costs for such period have been determined, an adjustment will be made to the rate for a future period, if necessary, to compensate for the difference between the costs used to establish the fixed rate and the actual costs.

2. **Provisional/Final Rate:** Within six (6) months after year end, a final indirect cost rate proposal must be submitted based on actual costs. Billings and charges to contracts and grants must be adjusted if the final rate varies from the provisional rate. If the final rate is greater than the provisional rate and there are no funds available to cover the additional indirect costs, the organization may not recover all indirect costs. Conversely, if the final rate is less than the provisional rate, the organization will be required to pay back the difference to the funding agency.

3. **Predetermined Rate:** A predetermined rate is an indirect cost rate applicable to a specified current or future period, usually the organization's fiscal year. The rate is based on an estimate of the costs to be incurred during the period. A predetermined rate is not subject to adjustment. (Because of legal constraints, predetermined rates are not permitted for Federal contracts; they may, however, be used for grants or cooperative agreements.)

E. Rate Extension: Only final and predetermined rates may be eligible for consideration of rate extensions. Requests for rate extensions of a current rate will be reviewed on a case-by-case basis. If an extension is granted, the non-Federal entity may not request a rate review until the extension period ends. In the last year of a rate extension period, the non-Federal entity must submit a new rate proposal for the next fiscal period.

F. Agency Notification: Copies of this document may be provided to other federal offices as a means of notifying them of the agreement contained herein.

G. Record Keeping: Organizations must maintain accounting records that demonstrate that each type of cost has been treated consistently either as a direct cost or an indirect cost. Records pertaining to the costs of program administration, such as salaries, travel, and related costs, should be kept on an annual basis.

H. Reimbursement Ceilings: Grantee/contractor program agreements providing for ceilings on indirect cost rates or reimbursement amounts are subject to the ceilings stipulated in the contract or grant agreements. If the ceiling rate is higher than the negotiated rate in Section I of this agreement, the negotiated rate will be used to determine the maximum allowable indirect cost.

I. Use of Other Rates: If any federal programs are reimbursing indirect costs to this grantee/contractor by a measure other than the approved rate(s) in this agreement, the grantee/contractor should credit such costs to the affected programs, and the approved rate(s) should be used to identify the maximum amount of indirect cost allocable to these programs.

J. Other:

1. The purpose of an indirect cost rate is to facilitate the allocation and billing of indirect costs. Approval of the indirect cost rate does not mean that an organization can recover more than the actual costs of a particular program or activity.

2. Programs received or initiated by the organization subsequent to the negotiation of this agreement are subject to the approved indirect cost rate(s) if the programs receive administrative support from the indirect cost pool. It should be noted that this could result in an adjustment to a future rate.

3. Each Indian tribal government desiring reimbursement of indirect costs must submit its indirect cost proposal to our office within six (6) months after the close of the Tribe's fiscal year, unless an exception is approved.

Section III: Acceptance

Listed below are the signatures of acceptance for this agreement:

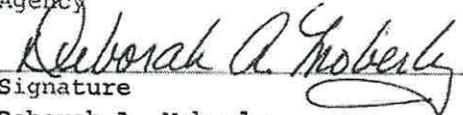
By the Indian Organization:

By the Cognizant Federal Government Agency:

Pueblo of Jemez
Tribal Government

U.S. Department of the Interior
Interior Business Center
Agency

 /s/

 /s/

David R. Yopca
Name (Type or Print)

Deborah A. Moberly
Name

Governor
Title

Office Chief
Office of Indirect Cost Services
Title

12-27-2016
Date

JAN 03 2017
Date
Negotiated by Marilyn P. Elgar
Telephone (916) 930-3811