

GRANT APPLICATION

to the

U.S. Bureau of Reclamation

Opportunity Announcement No. BOR-DO-17-F011

WaterSMART Grants: Small-Scale Water Efficiency Projects for Fiscal Year 2017

Effluent Reuse for Construction Water for the Village of Los Lunas Los Lunas, New Mexico

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I. Executive Summary

Date: Monday, May 15, 2017

Applicant Name: Village of Los Lunas

City: Los Lunas

County: Valencia

State: New Mexico

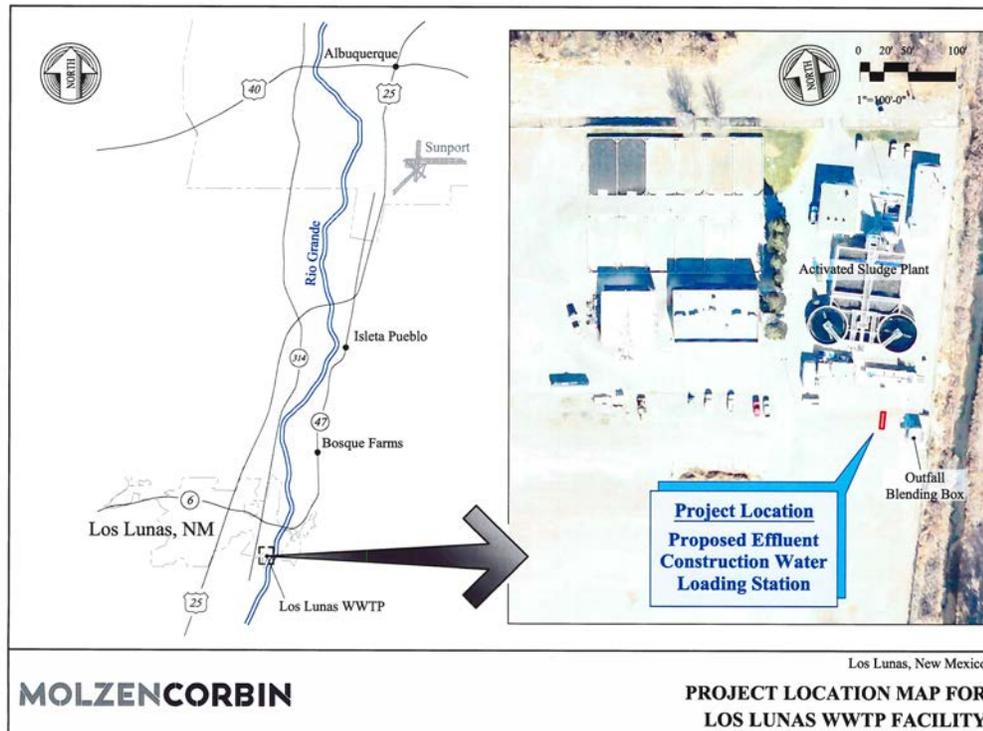
The Village of Los Lunas, New Mexico is located approximately 25 miles south of the City of Albuquerque in Valencia County. The Village is one of the fastest growing communities in New Mexico with approximately 14,835 residents, with a water system that currently serves 6,481 and industrial, commercial and institutional (ICI) customers.

The proposed scope of work involves a treated effluent construction water load out station for use within the community. The funds will be used to cover permitting, design and construction. The small-scale project will enable the use of treated effluent instead of potable water for non-potable construction-related uses. This project accomplishes beneficial reuse of effluent in place of potable water. The proposed project is anticipated to be completed within 12-18 months and is not located on a Federal facility.

II. Background Data

The Village of Los Lunas, situated along the Rio Grande River, is located 19 miles south of downtown Albuquerque in the Middle Rio Grande Basin. The Village limits, which cover 10.1 square miles, are located along the Rio Grande and Highway I-25. Figure 1 is a location map showing the Village of Los Lunas relative to Albuquerque, as well as the proposed location for the project at the wastewater treatment plant.

Figure 1. Location Map



Los Lunas provides water service to 6,481 residential and industrial, commercial and institutional (ICI) customers. These include 5,906 single-family accounts, 69 multi-family accounts that serve 511 housing units, and 506 commercial accounts which include municipal and county government facilities. Included in these numbers are 138 residential, 4 commercial, 4 multi-family and one school account that are outside the Village limits.

The Village currently uses four groundwater wells that withdraw water from the Rio Grande Basin. The water system can currently provide a supply that is adequate to meet current demand and the projected Phase I demand from the Facebook data processing center. In the future, the Village will need to drill a new well to be able to meet anticipated water demand. The Village has recently completed a well location study that identifies possible locations for this well, which will be referred to as Well 7.

Los Lunas holds a comprehensive water right permit, RG-20571 et al, which allows the Village to divert up to 6,320.5 acre-feet of water per year (AFY), provided that the Village has adequate water rights associated with its permit. The Village currently holds 5,566 AFY of diversion rights, assuming a 50 percent return flow. The Village's Forty-Year Water Development Plan contains a complete description of Los Lunas' water rights. The Village diverted almost 2,500 acre-feet of water in 2016. Current projection for water demand in 2025 (excluding the Facebook water use) is 2,860 acre-feet.

The Village's water right permit, issued in 2011 by the OSE, was approved on the basis that the groundwater supply was adequate to allow withdrawals at the projected rate of diversion for 40 years without impairment to other water users. This determination, along with the water rights that the Village currently holds, should provide the community with adequate water supplies well into the future.

The sewer collection system in the Village consists of many pipe lines ranging in size from 8-inch to 30-inch diameter. Sewage is delivered to the Village's wastewater treatment plant by both gravity and pumped methods. Following liquid treatment of the sewage, the effluent is currently discharged to the Rio Grande. This project will be taking a small portion of the effluent flow and making it available for non-potable construction uses.

The Village of Los Lunas has successfully received a 2016 grant with the Bureau of Reclamation to develop a Water Conservation Plan for their water management planning efforts.

III. Project Description

A water load out station will be constructed on the effluent line for treated water leaving the wastewater treatment facility. This station will enable water trucks and tankers to fill up with effluent for non-potable construction activities. The initial step for project implementation will be preparation of schematic design, followed by submission of a groundwater discharge permit application to the New Mexico Environment Department. Once permitted for this effluent use, the construction documents will be prepared and advertised for bids. The selected contractor

will then complete construction of the load out facility. Actual milestone dates are outlined in the Implementation Plan Schedule (Table 1).

Currently, all construction water in the community is drawn from the potable water system. Completion of this project will allow for the use of treated effluent for most of the Village's construction water use. Based on the Village's Water Conservation Plan, the project is expected to result in a one percent savings of potable water consumption.

IV. Evaluation Criteria

Evaluation Criterion A - Planning Efforts Supporting the Project

1. *Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?*

Yes, this project was identified in the Village's Water Conservation Plan.

2. *Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.*

The Water Conservation Plan identified two action-oriented goals that included efficiency of the water supply system and water efficiency on the demand side. On the demand side, it was identified that wastewater reuse was one of the conservation measures that would have a measurable impact on the system. It has been determined that the beneficial reuse of effluent for construction purposes is a direct replacement for the potable water currently used for these activities.

Evaluation Criterion B – Project Benefits

1. *Describe the expected benefits and outcomes of implementing the proposed project.*

A reduction in the groundwater diverted from the aquifer is the main expected benefit of the proposed project. Another expected benefit is providing a construction water source that is not subject to drought contingency measures. When water restrictions are enacted, construction water is usually the first target. By using effluent water for construction, a reliable source of water can continued to be used during periods of drought.

2. *What are the benefits to the applicant's water supply delivery system?*

The benefits to the Village's water supply delivery system are that the project will reduce the amount of groundwater being drawn from the aquifer which will impact the well pumps, water treatment systems, and the distribution network of pipes.

3. *If other benefits are expected explain those as well. Consider the following:*

Construction water supply reliability is improved by using effluent instead of potable water for the reasons noted in Question 1 during periods of water restrictions.

Evaluation Criterion C – Project Implementation
Implementation Schedule for Proposed Project

The development of the Effluent Reuse for Construction Water project will include the following tasks:

Table 1.

Task	Description	Estimated Schedule
1	Obtain groundwater discharge permit and submit to the New Mexico Environment Department	6 months (October 2017 - March 2018)
2	Design documents to include preliminary design, final design and bidding documents	4 months (March-June 2018)
3	Construction	6-8 months (June-Nov. 2018) or (June-Jan. 2019)

Los Lunas staff will work with a technical consultant to design the project. Project work is estimated to begin in October 2017 and be completed by January 2019. The tasks will be accomplished according to the schedule above, which may change according to the timing of the grant award.

1. Describe any permits that will be required, along with the process for obtaining such permits.

A groundwater discharge permit from the New Mexico Environment Department (NMED) will be required. This process involves submitting an application and fee to the NMED for the proposed project. It is anticipated this process will take 6 months to complete.

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

Design documents will be prepared for competitive bidding and selection of a contractor for installation of the effluent load out station.

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

The Village will need to let contractors know that the point of diversion for construction water will now be the effluent load out station at the wastewater treatment plant.

Evaluation Criterion D – Nexus to Reclamation

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

The Village of Los Lunas is located approximately 25 miles south of the City of Albuquerque and is built upon the banks of the Rio Grande. The municipal water supply comes from groundwater wells near the river. The Village also has an allocation of San Juan Chama

Project (SJCP) water. Los Lunas uses its water system to provide water to its residential, commercial and institutional water users. The project is a direct result of planning efforts from the Village's Water Conservation Plan which is a current planning document prepared utilizing Bureau of Reclamation funding.

2. Will the project help Reclamation meet trust responsibilities to any tribe(s)?

N/A

3. Does the applicant receive Reclamation project water?

No

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

No

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

The project is located in the Middle Rio Grande Basin.

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

N/A

V. 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 a previously disturbed site at the Village's wastewater treatment plant. Minimal impacts from construction activities may include dust and storm water runoff. These can be mitigated by requiring the installing contractor to employ best management practices for reduction of the impact to the surrounding environment.

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. If the construction proceeds according to the proposed schedule and within the bird nesting season (March 15 through September 15), surveys for nesting birds would be conducted prior to initiating construction activities. The Rio Grande silvery minnow has habitat in the Rio Grande. To prevent impacts, the Village of Los Lunas will: (1) implement BMPs specified in the SWPPP; (2) delay the use of heavy equipment during morning hours (from November 1 through March 31) if roosting bald eagles are visible from the project area; (3) inspect construction equipment for fuel, lubricant, and antifreeze leaks; and (4) ensure that discharges from the Village of Los Lunas Wastewater Treatment Plant meet standards under

the Village's NPDES permit for the treatment plant to ensure that there is no effect on the Rio Grande silvery minnow.

- 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's water delivery system was established in 1939 and has been developed through the implementation of numerous projects since that time. The current wastewater treatment plant was constructed in the early 1980's and various projects have been implemented on the site since then. A capacity expansion was implemented in 2010.

- 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.**

N/A

- 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.**

N/A

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

No archeological sites are located in the proposed project area.

- 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.

VI. Required Permits

The Village of Los Lunas will need to submit a groundwater discharge permit application to NMED. The process is outlined and described in the "Evaluation Criterion C" section. The Village will adhere to and comply with all Federal government requirements.

VII. Official Resolution

The Village of Los Lunas is in the process of adopting a Resolution supporting the application for grant funding to the U.S. Bureau of Reclamation for the Effluent Reuse for Construction Water small-scale project. Resolution # 17-08 is included on the following page. The Village Council is scheduled to review and approve the Resolution on Thursday, May 25, 2017.

RESOLUTION #17-08

For the United States Department of the Interior, Bureau of Reclamation

WaterSMART Grants: Small-Scale Water Efficiency Projects for Fiscal Year 2017

WHEREAS, the United States Bureau of Reclamation is currently soliciting applications for financial assistance for small-scale water efficiency projects;

WHEREAS, the Village of Los Lunas has the legal authority to enter into an agreement;

WHEREAS, the Village of Los Lunas has the capability to provide the amount of funding and/or in-kind contributions specified in the funding plan;

WHEREAS, the Village of Los Lunas is eligible to apply for funding from the United States Department of Interior, Bureau of Reclamation; and

WHEREAS, the Village of Los Lunas will work with the United States Bureau of Reclamation to meet established deadlines for entering into a grant agreement.

NOW, THEREFORE, BE IT RESOLVED that the governing body of the Village of Los Lunas has reviewed and approves the application to the United States Bureau of Reclamation WaterSMART Grants: Small-Scale Water Efficiency Projects for Fiscal Year 2017.

PASSED, APPROVED AND ADOPTED THIS 25th DAY OF MAY, 2017

Charles Griego, Mayor

ATTEST:

Gregory D. Martin, Village Administrator

VIII. Project Budget

Funding Plan

In order to complete this project, the Village is committed to providing in-kind services. The Village will match 50% of the project estimate from in-kind services and a cash match outlined in Table 1 of the Budget Proposal. The Village has committed funds from the Water Sewer Enterprise Fund which will be available once the Bureau of Reclamation awards the project.

1. **Describe any costs incurred before the anticipated Project start date that you seek to include as project costs.**

The project will commence after funding is awarded from the Bureau of Reclamation.

2. **Describe any funding requested or received from other Federal partners. Note: other sources of Federal funding may not be counted towards the cost share unless otherwise allowed by statute.**

None.

3. **Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.**

None.

Table 2- Summary of Non-Federal and Federal Funding Sources

Denote in-kind contributions with an asterisk ().*

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
Village of Los Lunas	\$75,198.88
Non-Federal Subtotal	\$75,198.88
Other Federal Entities	
None	
Other Federal Subtotal	0
REQUESTED RECLAMATION FUNDING	\$74,680.67

Budget Proposal and Narrative

The Village of Los Lunas would seek professional consultation services for the design of the Effluent Reuse for Construction Water. Construction will be completed by a contractor. The following provides a cost estimate of these services.

Budget Proposal (see Table 3)

Budget Narrative

Salaries and Wages

Village staff will participate in the permitting, design, and construction phases of the project. There are two Village staff members who will participate in the activities: the Public Works Director and the Wastewater Supervisor.

Fringe Benefits

Fringe benefits for Village staff have been included in the budget.

Travel

No travel costs are expected.

Equipment

No equipment costs are expected.

Materials and Supplies

No materials and supplies costs are expected.

Contractual

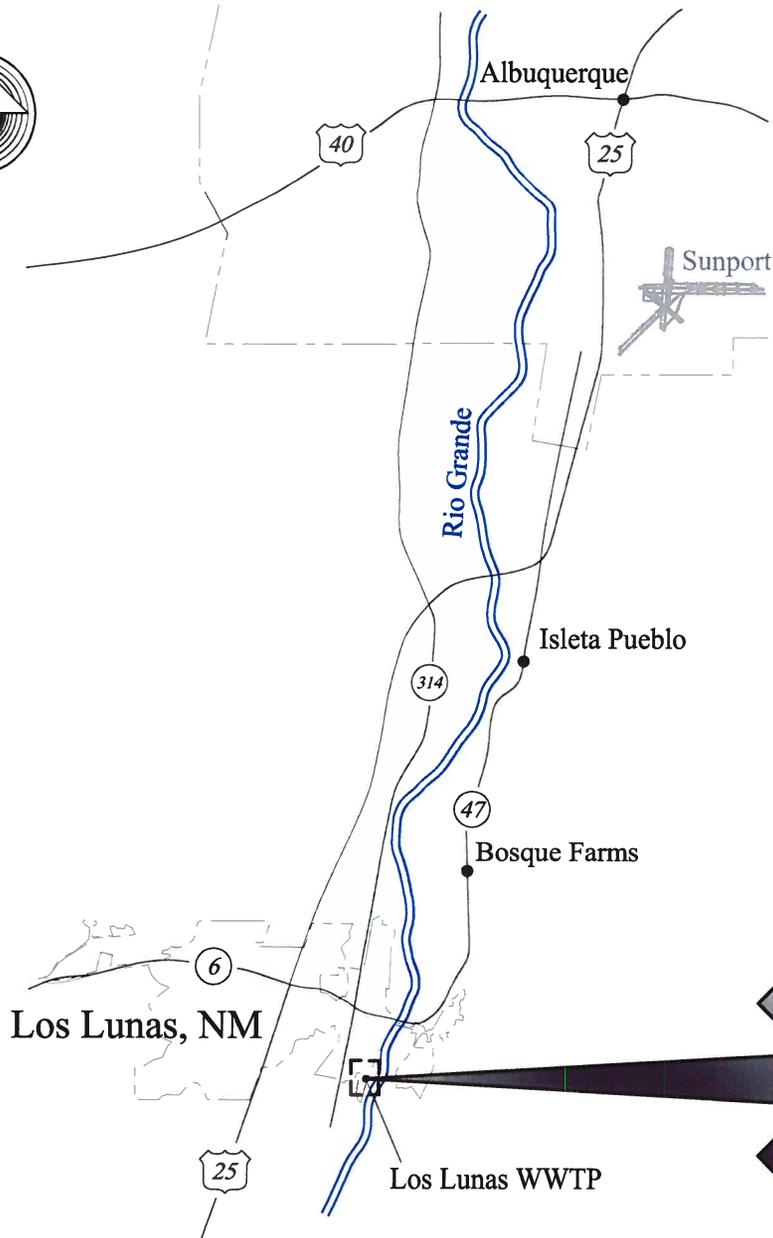
Contractual costs include professional services by an engineering consultant and construction services by a contractor. These have both been included in the budget.

Environmental and Regulatory Compliance Costs

The budget includes costs for implementing a survey for nesting birds prior to commencing construction activities.

IX. Unique Entity Identifier and System for Award Management (SAM)

The Village of Los Lunas is registered in the SAM system under DUNS #: 041067570 and CAGE Code: 5HNY6. The registration is currently active and expires on 01/10/2018.



Los Lunas, New Mexico

MOLZENCORBIN

**PROJECT LOCATION MAP FOR
LOS LUNAS WWTP FACILITY**