Bloomfield Irrigation District: Flume Water Conservation Project

WaterSMART Grants: Small-Scale Water Efficiency Project

FY2017

Funding Opportunity Announcement No. BOR-DO-17-F011

Bloomfield Irrigation District

Flume and Concrete Support Enhancement for Water Conservation Project

APPLICANT

Bloomfield Irrigation District
Stacy Dodd, Office Coordinator
Karen Steele, Administrative Assistant
P.O. Box 606
Bloomfield, NM 87413

Project Manager
Mike Meidinger
P.O. Box 606
Bloomfield, NM 87413
p 505-793-0913
f 505-632-3102
bloomfield@qwestoffice.net
**Table of Contents**

**Contents**

Technical Proposal and Evaluation Criteria .............................................................. 3
Executive Summary ........................................................................................................ 3
Photo 1 .......................................................................................................................... 3

Proposed Project Summary .......................................................................................... 3
Proposed Project ............................................................................................................ 3

Background Data ........................................................................................................... 3
Geographic Location ..................................................................................................... 4
Photo 2 .......................................................................................................................... 4

Source of Water Supply ............................................................................................... 4
Water Rights Involved .................................................................................................. 4
Current Water Uses and Number of Users Served .......................................................... 5
Current and Projected Water Demand ........................................................................... 5
Potential Shortfalls in Water Supply ............................................................................. 5
Major Crops and Total Acres Served ............................................................................ 5
Water Delivery System ................................................................................................ 6
Energy Efficiency Elements .......................................................................................... 6
Past Working Relationship with Reclamation ................................................................. 6

Proposed Project Description ....................................................................................... 6
Preliminary Breakdown for Project ................................................................................ 6

Evaluation Criteria ....................................................................................................... 7
Evaluation Criterion A .................................................................................................... 7
Evaluation Criterion B .................................................................................................... 7
Evaluation Criterion C .................................................................................................... 9
Chart 1 Preliminary Project Plan & Timeline .................................................................. 9

Evaluation Criterion D ................................................................................................... 10

Environmental and Cultural Resources Compliance ..................................................... 10
Required Permits or Approvals ..................................................................................... 11
Official Resolution ........................................................................................................ 11

Project Budget ............................................................................................................. 11
Funding Plan and Letters of Commitment ..................................................................... 11
Table 1 – Summary of Non-Federal Funding Sources .................................................... 12

Table 2 – Preliminary Budget Proposal ....................................................................... 12

Budget Narrative .......................................................................................................... 12
UEI and SAM Number .................................................................................................. 13
References ...................................................................................................................... 13
Bloomfield Irrigation District: Flume Water Conservation Project

Technical Proposal and Evaluation Criteria

Executive Summary
Date: April 24, 2017
Applicant Name: Bloomfield Irrigation District
Company Address: P.O. Box 606
City: Bloomfield County: San Juan County State: New Mexico
Contact: Stacy Dodd, Office Coordinator Bloomfield Irrigation District or Mike Meidinger, Ditch Foreman Bloomfield Irrigation District, Karen Steele, Administrative Assistant Bloomfield Irrigation District

Proposed Project Summary

Proposed Project
Bloomfield Irrigation District (BID) is requesting funding for the small-scale on-the-ground Flume Water Conservation Project that is not located on a Federal facility. The age of the flume, concrete support beams, and wooden inlet spill gate are beyond the maintenance lifespan. The wooden inlet spill gate is one of the original structures on the ditch. The concrete structures are in advanced stages of deterioration with exposed rebar. There is large amounts of water constantly leaking from the bottom of the abutment inlet and outlet on the base of the structure. This flume is vital to the continued flow of water to all stakeholders.

The proposed project will be Phase 1 of 3 Phases. Phase 1 consist of Demolition and removal of old aging concrete structures, the site work and clean-up/export of materials, replacement of old flume with new flume that will have Resin system of isophthalic polyester throughout. Phase 2 will be replacement of wooden spill gate with new updated spill gate. Phase 3 will consist of installing catwalk to access the spill gate safely and up to Occupational Safety and Health Association (OSHA) standards. It is within BID’s Capital Improvement Goals to replace old deteriorated structures with new sound structures that will hold up long term to the conditions of the ditch environment. This will enhance the integrity of our ditch and ensure water delivery to all stakeholders confidently. This flume project is included within these goals. Proposed start date will be November 5, 2018 and end date of December 21, 2018.

Background Data

Bloomfield Irrigation District is a Quasi-Government Local Public Body and has a long history of providing water to the community and local farmers. San Juan County was formed in 1876. On July 4, 1876, parts of San Juan County were opened to settlement and settlers came into the area, mostly from Colorado and Texas to farm, ranch and raise sheep. The San Juan was a free-flowing river and the land around the river was primarily leased to sheep and cattle ranchers. The abundance of water in San Juan County and fertile soil led to the development of agriculture, supported mostly by irrigation.

BID has been diverting water since May of 1912 and carries a 1906 priority date. The Jacquez Acequia which carries an 1878 priority date is part of our ditch. Many hard-working farmers and ranchers did their best, with limited resources, to keep the system flowing. In 1922, an agreement was signed between 7 western states called the Colorado River Compact. As the annual water yield of the Colorado River varied considerably from year to year, it was necessary to build storage dams at various points on the river system to provide more uniform annual water distributions for the users in the system. The addition of dams to the system would provide water storage, siltation basins, flood control and recreation.
This need evolved into the Colorado River Storage Project, approved by Congress in 1956. The Colorado River Storage Project was developed by the Bureau of Reclamation (B.O.R) to provide for the development of the Colorado River basin including flood control and hydroelectric power generation. On July 1958 the Bureau of Reclamation started building Navajo Dam, the dam being dedicated in September 1962. The dam was built to provide the benefits of a siltation basin, flood control, recreation and water for irrigation and industry. In addition to agriculture, San Juan County has large Coal, Natural Gas and some Oil deposits. (Float and Fish 5)

Bloomfield Irrigation District has one of the longest ditches in the county. There are over 66 structures on our ditch that are vital to safe and efficient operations. Many of which date back to World War 1 or earlier time frame of construction and installation.

Geographic Location
Bloomfield Irrigation District is in San Juan County New Mexico and serves the Blanco, and City of Bloomfield Areas. Bloomfield ranks in the upper quartile for Population Density and Diversity Index. Located in San Juan County, the City of Bloomfield encompass a land area of 7.91 sq. miles and water area of 0.05 sq. miles. Its elevation is 5,456 feet. (Hometown Locator 2)

Source of Water Supply
Bloomfield Irrigation District diverts water from the San Juan River a few miles downstream of the Navajo Dam Reservoir. BID then carries the water 42 miles to the end of the ditch located east of Bloomfield.

Water Rights Involved
We have been diverting water for irrigators and municipalities since May 20, 1912. BID has a priority date of 1907, and designated herein Priority N. 9 in the amount of three acre feet per acre per annum. The base water rights are established as adjudicated in the 1948 Echo decree, and also carries water for 26 – 1950’s License 2870 water permits. Total of Irrigated Acres: 6350.
- Approximately 60% of the ditch is operated year round to support the City of Bloomfield’s primary source for domestic water supply, supplying to more than 8,100 consumers
  - Water used by the City of Bloomfield is also used to supply domestic water to the Blanco Water Users Association and in times of emergency Bloomfield has the capabilities of supporting the City of Aztec with said water.
  - Providing to the City of Bloomfield Reservoir on average 426,000,000 gallons or 1,300 acre feet of water per year.
  - The Blanco Water Users Association provides water to 1348 customers.
  - Providing approximately 500 customers for the Harvest Gold (Animas Valley Water Users Association Customers)
Bloomfield Irrigation District: Flume Water Conservation Project
- Enterprise / Conoco Phillips for daily operations
- Providing on average 281,685,000 gallons or 865 acre feet of water per year just for irrigators.
- We have 2,513 water right owners on the Citizens Ditch. (5,400 acres)
- Divert water approximately 3 miles for 23 water right owners on the LaPumpa Acequia (408 acres)
- Divert water and conducts all maintenance for approximately 4 miles for 37 water right owners on the Jacquez Acequia (529 acres)

Bloomfield Irrigation District diverts on average 160 cubic feet per second of water in the summer months. Irrigation season runs from April 1st to October 31st. In the early irrigation season months there is more than enough water for everyone to get what is allotted to them. However, as the season progresses more demand is placed on the ditch and customers at the end of the ditch, at times, have a hard time receiving their allotted water. This is due to water loss throughout the ditch from infrastructure, evaporation, and invasive plants.

Current Water Uses and Number of Users Served
Current water uses consists of water for domestic, commercial, and agriculture with 6350 shares and more than 8,100 water users.

Current and Projected Water Demand
All water right owners are adjudicated an amount of irrigated acres and have a certain amount of water allotted to them. This is not anticipated to change. The irrigation water demands have remained the same and anticipated to do the same in the future as far as demand. Domestic water demand for the City of Bloomfield will increase as the population grows. Population growth is estimated to increase by 1.11% in San Juan County by 2020.

Potential Shortfalls in Water Supply
As agreed with the BOR and New Mexico State Engineers in the event of water shortage, BID shall shorten its irrigation season in order to meet its commitment to reduce irrigation depletions during times of drought. The end date for the period during which BID may divert water for irrigation uses shall be moved forward in time from October 31 until the percentage reduction in irrigation depletion matches the same percentage shortage as calculated by Reclamation. To determine a revised end date to the irrigation season, the following percentages indicating the distribution of the annual irrigation depletion by month shall be used:
- 12 percent for September
- 19 percent for August
- 22 percent for July
- 19 percent for June
- 13 percent for May
- 10 percent for April

Also in order to receive credit for irrigation depletion demand foregone, as a result of ceasing for a period of time after starting irrigation deliveries, but prior to ending irrigation deliveries, BID must provide Reclamation and the State Engineer with one-week advance notice of the number of days and the dates during which diversions will cease and cease all diversions for agricultural purposes during the dates specified, for a period of not less than seven consecutive days.

Our water supply is dependent upon the snowpack of the mountains of southwest Colorado to central New Mexico. Consecutive years of bad snowpack could mean supply once seen as dependable could falter. As temperatures warm a federal study warns climate change would mean less reliable supplies of water. "As Acequias confront the challenges of an uncertain climate, commodification of water, and other pressures, we also see the resurgence of local agriculture and the need for healthy local produce for our communities." (NMAA 4)

Major Crops and Total Acres Served
Farms with crops that range from fruit trees, pasture, and gardens. "In addition to the waters diverted for irrigation of lands, this ditch and the land owners and water users thereunder have the subsisting vested right to demand,
Bloomfield Irrigation District: Flume Water Conservation Project

divert receive and use such amount and amounts of waters, as are from time to time beneficially needed and required, for domestic and stock watering purposes. Originally built and organized under name of Citizens Ditch and Irrigation Company. Assigned to Bloomfield Irrigation District December 26, 1911.” (The Echo Decree 3). Total of Irrigated Acres is 6350.

Water Delivery System
On BID’s 42 miles of ditch there are:
- 17 syphons
- 5 tunnels
- 4 flumes
- 19 spill gates
- 21 culverts
- Approximately 7 miles of Raw Water pipeline
- Cotton Wood Ditch diversion

Energy Efficiency Elements
Will be replacing the flume with 11’ W x 7’ - 5” D x 45’ L FRP Flume. Resin system will be an isophthalic polyester throughout the laminate. The isophthalic polyester properties portfolio is inferior with respect to strength, chemical resistance and corrosion resistance when compared with other resin types including isophthalic polyesters. Corrosion barrier will consist of one (1) layer of C-veil followed by one (1) layer of 1 ½ oz. /ft² chopped E-glass. Exterior layers will consist of helically filament wound E-glass and alternating layers of 1 ½ oz. /ft² chopped E-glass strand and 24 oz. /yd² woven roving. Surface coat will consist of a paraffinated resin coat containing UV inhibitors.

Past Working Relationship with Reclamation
BOR has been assessing the areas ditches and acequias to acquire information on operations and infrastructure conditions for better water management. Denver BOR office did a site visit of our ditch and infrastructure on our ditch on August 30, 2015. Those in attendance felt that amongst other things there were 2 flumes that were of great concern. This flume is one of many vital structures in keeping the water flowing in the ditch.

BID attends all BOR Navajo Operations meetings and have an open communication to share and work together on constant fluctuations in needs or concerns for our ditch, other area ditches and the Navajo Damn Reservoir Operations.

Proposed Project Description

The proposed project will consist of Demolition and removal of old aging concrete structures, the site work and clean-up/export of materials, replacement of old flume with new flume that will have Resin system of isophthalic polyester throughout. Upgrading to new, updated, sound structures that will hold up long term to the conditions of the flume and ditch environment will enhance the integrity of our ditch. If flume was to give way it would put all stake holders in an emergency where water supply would be cut off for an extended period. Proposed start date will be November 5, 2018 and end date of December 21, 2018.

Preliminary Breakdown for Project
Within one year the funding request from WaterSMART will be, project forecasted to begin on November 5, 2018 (subject to procurement completion) and be completed by December 21, 2018 and will include the following:
- Start of Project/Mobilize
- Demolish existing flume & supports
- Prep & Grade
- Build forms & tie rebar
- Set forms
- Pour concrete
Bloomfield Irrigation District: Flume Water Conservation Project

- Strip forms
- Install new flume
- Clean up
- End of Project/Demobilize

Evaluation Criteria

Evaluation Criterion A—Planning Efforts Supporting the Project (35 Points)
Up to 35 Points may be awarded based on the extent to which the proposed on-the-ground project is supported by an applicant’s existing water management plan, water conservation plan, System Optimization Review (SOR), or identified as part of another planning effort led by the applicant.

Describe how your project is supported by an existing planning effort.
We have many aging infrastructures, many that date back to World War 1 or earlier. There are wooden spill gates that were installed in the early 1900's that are still being used today. BID’s syphons were installed in 1946 right after the war. The age of the flume and concrete support beams are beyond the maintenance lifespan and are in advanced stages of deterioration. BID current goal and planning effort is to conserve, better manage, and make more efficient use of water in as many ways possible to help ensure that delivery of entitled water to the Lower Basin States, City of Bloomfield, and all irrigators on our ditch as well as stop the wasteful return flow.

Due to the vulnerabilities of our ditch and the thousands of customers who depend on this water for domestic, irrigation, and municipal needs, support of many City, County, State, and Federal representatives has been demonstrated. U.S. Rep. Ben Ray Lujan facilitated a roundtable discussion on Tuesday December 20, 2016 to bring all stake holders together to discuss the resources and funding needed to address the ditch needs. Both Enterprise and Conoco Phillips had representatives attend. The City of Bloomfield, San Juan County, along with many state and federal agencies attended in support.

- Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?
  Aging infrastructure on our ditch has been identified as a problem and is in our existing Capital Improvement Goals. This proposed project is top priority within these goals. There is a wide diversity of benefits to maintain the structure on our ditch to ensure adequate CSF flow. On top of ensuring water to stake holders, there is a need to conserve as much water as possible because there have been years of low snow pack and drought conditions. The unpredictability of weather and dry conditions are factors for water conservation and the future needs of water downstream, which is a limited resource. “Facing declining levels in Lakes Mead and Powell, the Upper Colorado River Commission, the U.S. Bureau of Reclamation, and four water providers that depend on Colorado River Basin supplies have been funding pilot projects to test methods for saving water that could be part of a drought contingency plan for the Upper Basin of the Colorado River. The Pilot Program is exploring and learning about the effectiveness of temporary and voluntary measures that could be used, when needed, to help maintain water levels in Lake Powell above the elevations needed to maintain hydroelectric power production and protect Colorado River compact entitlements.”(UCRC 1)

- Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.
  BOR has been assessing the areas ditches and acequias to acquire information on operations, infrastructure conditions for better water management. Denver BOR office did a site visit of our ditch and infrastructures on our ditch on August 30, 2015. Those in attendance felt that amongst other things there were 2 flumes that were of great concern. This flume is one of many vital structures in keeping the water flowing in the ditch.

Evaluation Criterion B—Projects Benefits (35 Points)
Bloomfield Irrigation District: Flume Water Conservation Project

Up to 35 points may be awarded upon evaluation of the benefits that are expected to result from implementing the proposed project. This criterion considers a variety of project benefits, including improving the management of water supplies, the significance of the anticipated water management benefits, the public benefits of the project, and any expected environmental benefits.

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

Replacing our aging infrastructures will help accomplish water conservation and efficiency on our ditch. Our ditch is the City of Bloomfield’s primary source for domestic water supply, supplying to more than 8,100 consumers and many farmers and ranchers depend on water from our ditch to keep their crops and stock healthy.

- What are the benefits to the applicant’s water supply delivery system?

The structure on our ditch is vital to the ability to function and sustain water flow to all stakeholders. Our ditch is the City of Bloomfield’s primary source for domestic water supply, supplying to more than 8,100 consumers. Also provide water to Blanco Water Users and Harvest Gold Water Users. We have 2,513 water right owners on the Citizens Ditch, and divert water for approximately 3 miles for 23 water right owners on the LaPumpa Acequia. Divert water and conducts all maintenance for approximately 4 miles for 37 water right owners on the Jacquez Acequia. We provide water to Enterprise/Conoco Phillips for daily operations.

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

  ▪ Extent to which the proposed project improves overall water supply reliability

  The vitality of our ditch is in question due to aging infrastructure and there is a great need to take care of these problems. On May 16, 2016 there was a breach in our ditch and the ditch was shut down for 12 days. San Juan County emergency management was called in due to the vital importance of the water we supply and a State of Emergency of declared. By replacing aging infrastructure such as this flume we are ensuring the reliability of our ditch to provide water to all stake holders involved.

  ▪ The expected scope of positive impact from the proposed project (e.g., local, sub-basin, basin)

  The Colorado River Compact of 1922 specifies that the Upper Basin States are to provide a minimum annual flow of 7,500,000 acre feet to the Lower Basin States. Locally, we provide water to the City of Bloomfield, Blanco Water Users, and industrial operations. Our ditch is a factor in helping maintain these acre feet and provides positive impact to all stakeholders by maintaining required water delivery.

  ▪ Extent to which the proposed project will increase collaboration and information sharing among water managers in the region

  We have an ongoing relationship and have been working with Jose Pino and Chambliss Lantana from the local NRCS for a year and a half to map out our structures and seek available funding. Dale Lyons with the Nature Conservancy came out and walked parts of our ditch to see firsthand the needs and operations of ditch. We have spoken with Paula from NM Acequia Association on the needs and funding for the areas of two Acequias we divert water for and one of which we do maintenance for.

  ▪ Any anticipated positive impacts/benefits to local sectors and economies (e.g., agriculture, environment, recreation, tourism)

  Our water delivery to the City of Bloomfield for the Parks and Recreation Department, which is responsible for watering the city parks and landscaping. In 2016 The City of Bloomfield put into action a U.S. Highway 64 Beautification Project for the City median landscaping. This project was put in place as a way of making Bloomfield a more attractive place for business and create tourism. The declining oil and gas industry caused the cities gross receipts tax revenues to plunge to a $1.3 million Budget Shortfall and the City is hoping to diversify income to meet budget shortfall. Out of the landscaping cost of $1.7 million, $1.2 million is from the New Mexico Finance Authority and the remaining is Capital Outlay Monies. The integrity of our ditch and the structures on our ditch are vital to the delivery of water to maintain the numerous recreation sites of Bloomfield such as the Soccer fields, Baseball fields, and Parks. The irrigation water is a beneficial factor to the economy, recreation, and tourism to the City of Bloomfield. We also deliver water for agriculture within our district, we have 2,513 water right owners on the Citizens Ditch. We also divert water for approximately 3 miles for 23 water right owners on the LaPumpa Acequia, and diverts water and conducts all maintenance of
Bloomfield Irrigation District: Flume Water Conservation Project approximately 4 miles for 37 water right owners on the Jacquez Acequia. Our water delivery is a vital part of the community in so many factors that it is of utmost importance to upgrade the aging infrastructure and avoid an emergency situation.

**Evaluation Criterion C**—Projects Implementation (15 Points)

Up to **15 points** may be awarded based upon the extent to which the applicant is capable of proceeding with the proposed project upon entering into a financial assistance agreement. Applicants that describe a detailed plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.

- Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.

![Chart 1 Preliminary Project Plan & Timeline](image)

**Chart 1 Preliminary Project Plan & Timeline**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>START</th>
<th>END</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Start</td>
<td>11/5/2018</td>
<td>11/6/2018</td>
<td>Mobilize equipment</td>
</tr>
<tr>
<td>Milestone 1</td>
<td>11/7/2018</td>
<td>11/15/2018</td>
<td>Demolish existing concrete and remove old flume</td>
</tr>
<tr>
<td>Milestone 2</td>
<td>11/16/2018</td>
<td>11/21/2018</td>
<td>Start prep and grade for flume supports and inlet and outlet</td>
</tr>
<tr>
<td>Milestone 5</td>
<td>12/5/2018</td>
<td>12/7/2018</td>
<td>Set forms</td>
</tr>
<tr>
<td>Milestone 6</td>
<td>12/10/2018</td>
<td>12/11/2018</td>
<td>Pour Concrete</td>
</tr>
<tr>
<td>Milestone 7</td>
<td>12/12/2018</td>
<td>12/13/2018</td>
<td>Strip Forms</td>
</tr>
<tr>
<td>Milestone 8</td>
<td>12/14/2018</td>
<td>12/18/2018</td>
<td>Install flume/will work this Saturday</td>
</tr>
<tr>
<td>Milestone 9</td>
<td>12/19/2018</td>
<td>12/20/2018</td>
<td>Clean Up</td>
</tr>
<tr>
<td>Milestone 10</td>
<td>12/21/2018</td>
<td>12/21/2018</td>
<td>Demobilize</td>
</tr>
<tr>
<td>Project End</td>
<td>12/21/2018</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Describe any permits that will be required, along with the process for obtaining such permits. There are no permits required for this project known at this time.
Bloomfield Irrigation District: Flume Water Conservation Project

- Identify and describe any engineering or design work performed specifically in support of the proposed project.
  There are no engineering or design work performed specifically for this project at this time.
- Describe any new policies or administrative actions required to implement the project.
  Upon approval of the grant and the board to proceed a procurement will be implemented.

Evaluation Criterion D — Nexus to Reclamation (15 points)
Up to 15 Points may be awarded based on the extent that the proposal demonstrates a nexus between the proposed project and Reclamation project or activity. Describe the nexus between the proposed project and a Reclamation project or activity, including:

  - How is the proposed project connected to a Reclamation project or activity?
    We receive water down stream of Navajo Dam, which is part of the Colorado River Storage Project.
  - Will the project help Reclamation meet trust responsibilities to any tribe(s)?
    This project is not part of any known to us trust responsibilities to any tribes.
  - Does the applicant receive Reclamation project water?
    Bloomfield Irrigation District does receive Reclamation project water from Navajo Dam project operations.
  - Is the project in the same basin as a Reclamation project or activity?
    This project is in the same basin as the Colorado River Storage Project which is a Reclamation project and activity.
  - Will the proposed work contribute water to a basin where a Reclamation project is located?
    Our ditch is within the Colorado River Storage Project, therefore any emergency diversion or water conserved would be a contribution to the Basin.

Environmental and Cultural Resources Compliance

- 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.
  There is no proposed impact on the surrounding environment. There is not any earth-disturbing or work that will affect the air, water, animal habitat, or surrounding environment.
- Are you aware of any species listed or proposed to be listed as 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?
  There is no known species to be affected in our ditch.
- 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.
  There are no known wetlands inside the project boundaries.
- When was the water delivery system constructed?
  The water delivery system was constructed between 1907 and 1912.
- 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.
  The proposed project will modify an aging flume that is one of the original structures and is past the maintenance lifespan.
- 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.
Bloomfield Irrigation District: Flume Water Conservation Project

There are no known structures or features listed in the irrigation district at this time.

- Are there any known archeological sites in the proposed project area?
  There are no archeological sites in the proposed project area.

- Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?
  The proposed project does not have any disproportionately high or adverse effects at all on low income or minority populations.

- Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?
  The proposed project will not limit access to ceremonial use of Indian sacred sites. There are no impacts to tribal lands.

- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?
  The proposed project will not have any effect on any spread of noxious weeds or non-native invasive species.

**Required Permits or Approvals**
There are no required permits or approvals for this project at this time.

**Official Resolution**
Please see Attachment A – Signed by the Board in an open meeting on April 4, 2017

**Project Budget**

**Funding Plan and Letters of Commitment**
Non-Federal share of project costs has already been obtained and is in reserve. Upon receiving approved grant the money would be included into the budget submitted to New Mexico Department of Finance for the Bloomfield Irrigation District Budget 2018-2019. There will be no third-party funding sources.

- Bloomfield Irrigation District will make our contribution to the cost-share requirement with reserve account, tax revenue and assessments.

  - There will be a cost for procurement for the project before start date.
    - The preliminary procurement Total cost is $71.20
    - The cost of the procurement will be done by Bloomfield irrigation District Chief Procurement Officer as in-kind service.
    - Bloomfield Irrigation District follows NM procurement law and it is required for a project of this cost.

- There is no funding requested or received from other federal partners at this time.

- There are no pending funding requests that have not been approved.
Bloomfield Irrigation District: Flume Water Conservation Project

If proposal is selected for award the proposed project will follow New Mexico State Procurement Code and go out for procurement under BID’s Chief Procurement Officer. At this time it will be determined if engineering services will be needed. The procurement code applies to all governmental entities. The Function of procurement is to have efficient purchasing system that would result in an increase in savings of tax dollars and increase public confidence in purchasing system. The objective is to significantly reduce the opportunities of unethical behavior associated with the procurement process. Per procurement code the contract will be awarded to a construction company to perform the proposed project. Our ditch foreman and board of directors would oversee all activities from start to finish of proposed project.

Environmental and Regulatory Compliance Costs
There have been no Environmental or Regulatory Compliance costs determined at this time.

Other Expenses
There are no other expenses at this time.

Indirect Costs
At this time BID does not have a federally approved indirect cost; therefore no indirect cost will be taken at this time.

Proposed Total Costs
Total funded by BID $74,944.05
Total requested funds from Reclamation $74,944.05

UEI and SAM Number
• Unique Entity Identifier and System for Award Management
  o BID is registered and updated through March 2, 2018 with SAM.
  o BID’s unique entity identifier is 956377527.

References


3. In The First Judicial District Court of New Mexico, Within and For San Juan County; The Echo Ditch Company vs The McDermott Ditch Company (The Echo Decree), No. 01690, Judgment. (April 22, 1901).

4. New Mexico Acequia Association, “Make the Most of Spring Acequia Meetings!”

5. Float and Fish, San Juan Area History, http://www.sanjuanfloatnfish.com/history.htm

6. New Mexico Department of Workforce Solutions, Economic Research & Analysis Bureau, www.dws.state.nm.us
A RESOLUTION authorizing the submittal of a state grant application by the Bloomfield Irrigation District for the WaterSmart Grants Small Scale Water Efficiency Projects for Fiscal Year 2017 (Funding Opportunity Announcement No. BOR-DO-17-F011) by the US Department of the Interior Bureau of Reclamation.

WHEREAS the Bloomfield Irrigation District believes itself to be qualified, and is willing and able to carry out all activities described in the state grant application; and,

WHEREAS in this action the Bloomfield Irrigation District has declared its intent to conduct the Blanco Flume project described in the application; and,

WHEREAS the Bloomfield Irrigation District is aware and capable of providing the amount of funding and/or in-kind contributions specified in the funding plan; and,

WHEREAS in this action the Bloomfield Irrigation District will, upon an award and acceptance of the grant, agree to the terms of the grant;

IT IS THEREFORE RESOLVED THAT: The Bloomfield Irrigation District requests the funds and assistance available from the US Department of Interior Bureau of Reclamation under the WaterSmart Grant Program and will comply with state rules for the program, and,

HEREBY AUTHORIZES the authorized representative Board Chairman, Andrew Dean, to act on behalf of the Bloomfield Irrigation District to submit and sign an application to US Department of the Interior BOR Financial Assistance Operations, sign related documents, and

HEREBY AUTHORIZES the authorized representative Board Chairman, Andrew Dean, to act on behalf of the Bloomfield Irrigation District to sign the grant agreement if the grant funds are awarded.

Now THEREFORE BE IT HEREBY RESOLVED that the Governing Body of Bloomfield Irrigation District, State of New Mexico hereby agrees to proceed with herein above described grant proposal process.

RESOLVED: in Quarterly session this 4th day of April, 2017 By the GOVERNING BODY OF:

Bloomfield Irrigation District, Bloomfield New Mexico
Leonard Trujillo, Board Member

State of New Mexico
County of San Juan

Subscribed and sworn before me this 4th day of April, 2017 By Andrew Dean, Leonard Trujillo, and Dale Archuleta.

Stacy A. Dodd
Notary Public

My Commission Expires 9/21/19

2017 WATERSMART GRANT APPLICATION
May 11th, 2017

Ms. Irene Hoiby  
Bureau of Reclamation  
Financial Assistance Operations  
PO Box 25007  
Denver, CO 80225

Dear Ms. Hoiby and WaterSMART Grant Review Committee:

The New Mexico Delegation proudly supports the grant application of the Bloomfield Irrigation District in its application for the WaterSMART Grants: Small-Scale Water Efficiency Projects for Fiscal Year 2017 grant, FON # BOR-DO-17-F011. The funding will be used to replace one of the four flumes within its extensive ditch system.

Bloomfield Irrigation District (BID) is located in San Juan County New Mexico and serves the Blanco and City of Bloomfield Areas with a current population of 8,182 and covering a land area of 7.91 sq. miles. The BID provides irrigation to many farmers in the area through one of the longest ditches in the country. It will not be able to do so, however, if the flume in question continues to leak and if it is subject to overflows, as it currently is. Indeed, there more than 8,000 people benefit from the use of the BID ditch and any loss of water in such a dry and arid climate as Northwestern New Mexico would be severely detrimental.

If the BID would be granted the WaterSMART funding, they would put it to good use replacing the flume with a new resin-based flume that will be covered in ultraviolet inhibiting material to protect it from the harsh New Mexico sun. Furthermore, the wooden spill gate will be replaced with a new updated spill gate. Finally, upgrading the structures surrounding the ditch will hold improve the conditions of the flume and ditch environment and will enhance the integrity of the ditch for decades to come. If the flume was to give way it would create an emergency situation for
all stakeholders where their water supply would be cut off for an extended period. It is supremely important the BID receives this funding to avert an emergency situation in a very arid region of the United States and so that their water use can be more efficiently without the wasteful overflows caused by the current degraded flume system.

The New Mexico Delegation proudly supports the grant application of the Bloomfield Irrigation District and believes that funding from the Bureau of Reclamation will substantially benefit the state of New Mexico as a whole. We ask that their application be given due consideration within all applicable guidelines, rules, and regulations.

Sincerely,

Tom Udall
United States Senator

Steve Pearce
United States Representative

Martin Heinrich
United States Senator

Ben Ray Luján
United States Representative

Michelle Lujan Grisham
United States Representative