

**WaterSMART Grant Application  
Small-Scale Efficiency Projects  
for Fiscal Year 2018  
FOA No. BOR-DO-18-F009**

**Talent Main Canal Shotcrete  
D/S Bear Creek Siphon**

**TALENT IRRIGATION DISTRICT  
APPLICANT**



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## **TECHNICAL PROPOSAL AND EVALUATION CRITERIA**

### ***EXECUTIVE SUMMARY***

July [REDACTED], 2018

The Talent Irrigation District's project area includes land in and around the cities of Medford, Phoenix, Talent and Ashland in Jackson County in southwest Oregon. The District is requesting financial assistance to replace sections of the broken concrete liner in a 900' section of the Talent Main Canal just downstream of the Bear Creek Siphon. The original concrete liner dates to 1958 as part of the enlargement of the District's system through the Bureau of Reclamation's Rogue River Basin Project – Talent Division. It is estimated that 85 acre feet per season is lost through this section. The District will replace the broken concrete liner with 4000psi shotcrete with fiber. Barring any unforeseen circumstances, the project should be completed within a nine month period with an estimated completion date of June 30, 2019.



### ***BACKGROUND DATA***

The Talent Irrigation District is a special district government organized under Oregon Revised Statutes (ORS) 545 by order of the Jackson County Commissioners on May 22, 1916. By the late 1920s the District's original system was constructed which served approximately 10,000 acres.

In 1956 the water users of the District voted and approved the signing of a contract with the Bureau of Reclamation for the rehabilitation and enlargement of the system, which became known as the Rogue River Basin Project - Talent Division.

The District has storage in three Reclamation reservoirs: Howard Prairie, Hyatt Prairie and Emigrant. The District's irrigation water supply comes from the flows of the following creeks: South Fork of Little Butte Creek and its tributaries; Grizzly Creek and Keene Creek above Hyatt Prairie and Keene Creek Reservoirs; Emigrant Creek and its tributaries above Emigrant Reservoir; Bear Creek and its tributaries below Emigrant Reservoir; as well as several other tributaries throughout the Federal Project area.

Irrigation water is provided to the District waterusers by an extensive collection, diversion, storage, and conveyance system. The District makes its water deliveries through 120 miles of canals and 113 miles of laterals. Approximately 15 percent of the

canals are either piped or lined. Approximately 70 percent of laterals are piped with varying sizes, pressures and materials.

The District provides agricultural water for commercial and residential irrigation to land included within its boundaries. The District consists of approximately 2,950 waterusers with 3,480 tax lots over 15,500 irrigated acres. The estimated annual usage is 55,000 acre feet. The dominant crop is forage (hay) followed by tree fruits, grapes, vegetables and other crops.

During hot weather events and the timing of certain crop harvests, the District struggles to keep water to the end-users of each of its six canals. Even though the design capacity of the canals are adequate to serve the canal acreages, during these hot weather events when the aquatic vegetation is at its peak and demand is at its highest, it is difficult and at times impossible to serve the end-user. Patrons on the tail-end of the canals are hesitant to convert from flood irrigation to more efficient methods due in large part to the unreliability of holding a workable or steady head on their intake systems.

According to the District's Water Management and Conservation Plan (WMCP)<sup>1</sup>, the District operates at a deficit during below-average water years. When snow pack and stream flows are below normal, the District often has to draw from its storage reservoirs earlier than normal; and depending on the starting storage capacity, can create a shortfall for that year, which can also extend into the following year. The District relies heavily on accumulated storage supply to provide a full irrigation season.

The Talent Main Canal is one of six canals the District uses to deliver water to its patrons. It begins at the Oak Street Diversion in Bear Creek located northeast of the City of Ashland and terminates southwest of the City of Medford. It serves approximately 860 patrons on 3,765 irrigated acres. Its main production is forage with some tree fruits and grapes. Approximately 30% of its 19.4 miles have been piped, nearly all of which is located on the lower end of the canal where piping is economically feasible. Canal lining has been used more frequently on the upper portion of the canal as a more economical means of conserving water.

Since the District's irrigation water is delivered primarily through canals that are open channels that are subject to high seepage losses and periodic canal bank failures, continued monitoring of the delivery system helps to identify areas of concern, and high seepage areas are given higher priority status. This 900' section of the Talent Main Canal has several areas where cracks in the concrete have developed and washed out the sub-grade creating cavities behind the concrete wall increasing the likelihood of canal failure and causing the loss of water estimated at 85 acre feet per season.

Through Reclamation grant opportunities the District has been able to pair scarce District dollars with Federal funds to make improvements to the District's system that have resulted in conserving water, controlling soil erosion and increasing efficiency in water deliveries. Without continued financial assistance from the Bureau of Reclamation, the

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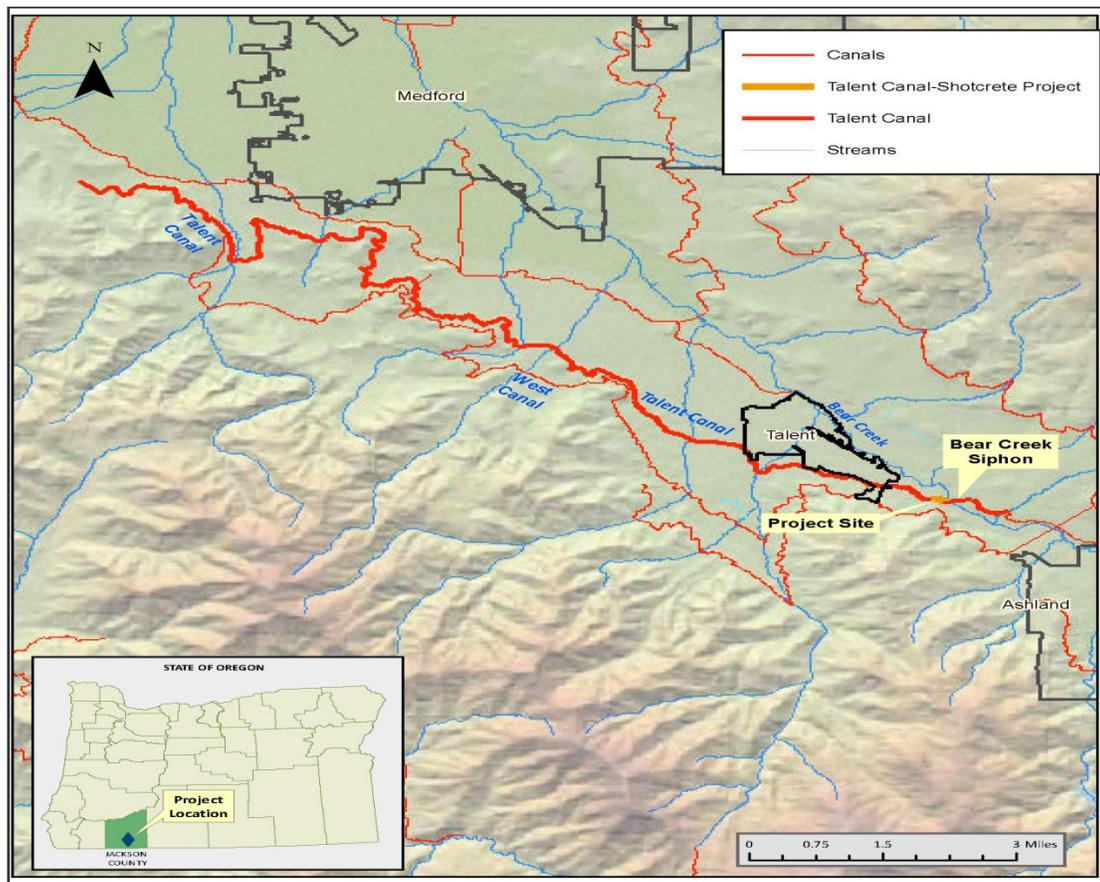
<sup>1</sup> Talent Irrigation District – Water Management & Conservation Plan – April 2018

District would need to delay the majority of its capital improvement projects to find other funding sources. Below is a list of recent projects funded with Reclamation grant funds.

- R16AP00067 Canal Lining & Piping – \$25,000 grant - Completed April 20, 2018 – Lined 700’ of canal and piped 560’ for a cost of \$50,133.
- R15AP00058 EMC Canal Lining Project - \$15,670 grant – Completed January 29, 2018 – Lined 1,140’ of canal for a cost of \$34,180.
- R09AP13423 2009 Canal Lining & Piping - \$126,709 grant – Completed March 9, 2014 – Lined 2,980’ of canal and piped 5,000’ for a cost of \$253,418.

## **PROJECT LOCATION**

The Talent Main Canal d/s Bear Creek Siphon project site is located in Jackson County, Oregon, approximately ½ a mile southeast of the City of Talent. The mid-point of the project is located on latitude 42°13’36.83N and longitude 122°45’09.42W. The project site is located between canal mile marker 2 and 3 on the 19.4 mile long canal.



## **Talent Main Canal Shotcrete Project**

Date: 6/1/2018

## **TECHNICAL PROJECT DESCRIPTION**

The District proposes to replace the broken concrete liner in the 900’ section of the Talent Main Canal just downstream of the Bear Creek Siphon using 125 cubic yards of reinforced shotcrete with fiber.



Cracks in the existing concrete have allowed the water to saturate the sub-grade further undermining the canal's integrity and allowing the loss of approximately 85 acre feet of water annually. Reinforced shotcrete is crack resistant and more tolerant to fluctuations in the canal prism.

District personnel will prepare the site by removing the broken concrete, repacking and reshaping the canal prism using an excavator. Then the crew will apply the shotcrete with fiber, supplied by a local vender, to the site with a concrete pump.

The expected outcomes of this project are:

- reduce leaks and seepage in this 900' section of canal, estimated at 85 acre feet annually;
- reduce the risk of canal failure;
- improves the stability of the canal by using a liner that resists cracks.

## ***EVALUATION CRITERIA***

### **Criterion A – Project Benefits (35 points)**

- **Describe the expected benefits and outcomes of implementing the proposed project.**
  - **What are the benefits to the applicant's water supply delivery system?**
    - Seals the canal prism reducing the likelihood of leaks and seepage.
    - Provides a more efficient water delivery system.
    - Improves the flow of water by reducing friction/turbidity.
    - Provides a smooth surface which discourages the collection of silt and debris that encourages growth of both aquatic and terrestrial vegetation that can choke the canal.
    - Reduces the frequency of canal cleanings through this section.
    - Reduces the likelihood of a canal failure from burrowing rodents or leaks and seepage undermining the canal.
  - **If other benefits are expected explain those as well.**
    - Conserves an estimated 85 acre feet of water annually.
    - Improves delivery reliability by preventing the loss of water in the delivery system, providing a more reliable supply to the end user.

- Improves the water supply since the water saved can be held in the reservoirs for future use.
- Increases the storage in the reservoirs, allowing for additional recreational use.
- Increases the availability and reliability of water for other uses, such as augmenting the operational stream flow enhancement as determined by the requirement of the Biological Opinion.<sup>2</sup>

**Criterion B – Planning Efforts Supporting the Project (35 points)**

- **Describe how your project is supported by an existing planning effort.**
  - **Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?**
    - As stated in the District’s Water Management and Conservation Plan (WMCP), Executive Summary, Page 11, GOALS, “General goals include development and implementation of conservation projects according to criteria that accounts for financial capacity of the TID, time, operational risk priorities, and environmental and regulatory consideration. Project objectives include:
      1. Improvements to water distribution system;
      2. Improvements in water measurement, management and control;
      3. Reductions in seepage losses;
      4. Reductions in operations and maintenance costs; and
      5. Improvements in water delivery accountability; and
      6. Reduce liabilities to the TID.”

The replacement of the concrete liner with reinforced shotcrete in this 900’ section of the canal will assist in the accomplishment of most of these WMCP’s objectives. This project will:

1. Improve the efficiency of the water distribution system by providing a smooth surface, thereby reducing friction loss;
2. Improve water management and control by reducing canal losses allowing more accurate measurements of on-farm use;
3. Reduce leaks and seepage losses by sealing the canal prism;
4. Reduce operation and maintenance costs by discouraging the accumulation of sediment which promotes growth of aquatic and terrestrial vegetation in the canal prism requiring frequent removal;

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<sup>2</sup> Endangered Species Act Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Future Operation and Maintenance of the Rogue River Basin Project (2012-2022), Rogue and Klamath River Basins (HUCs: 18010206, 17100308, 17100307), Oregon and California.

- 5. Improve water delivery accountability by minimizing water loss through this section which provides
    - a. a more reliable flow to the end users and/or
    - b. for the conserved water to be held in storage;
  - 6. Reduce District liability by decreasing the risk of canal failure which is particularly significant given this section of canal is located directly upslope from a major highway.
    - In addition, the Talent Canal, and in particular this section of the Talent Canal is listed in Reclamation’s High Risk Canals in Urban Areas Report as Number 2012-2-T. The report recommended reshaping the canal and repairing the liner.
- **Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.**
    - This project is cost effective compared to the benefits it provides which include the conservation of water.
    - The project site is located on steep terrain. A canal failure in this location could significantly interfere with two high traffic roads located downslope of the project location, Highway 99 N and Talent Avenue, which could cause substantial damage.

**Criterion C – Project Implementation (10 Points)**

- **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.**
  - District personnel will perform all of the tasks detailed below with the exception of the regulatory compliance requirements which will be performed by Reclamation staff. District personnel are familiar with this type of project.

**Project Schedule**

TASK DESCRIPTION	2018	2019	
	Oct - Dec	Jan - Mar	Apr - June
Regulatory Compliance – Reclamation			
Administrative			
Bid Shotcrete			
Grant Reporting			
Construction			
Site Prep - Excavation, repack canal prism			
Shoot shotcrete			
Monitor site for leaks/seepage			

- **Describe any permits that will be required.**
  - No permits are required.

- **Identify and describe any engineering or design work.**
  - No engineering or design work is required.
- **Describe any new policies or administrative actions required to implement this project.**
  - No new policies or administrative actions are required. The District will use the existing policies and procedures for procurements.
- **Describe how the environmental compliance estimate was developed.**
  - District staff consulted with Reclamation staff for an estimate of the regulatory compliance costs. The Environmental Protection Specialist feels this project should qualify for a Categorical Exclusion Checklist. The Archeologist anticipates a “no adverse effect” determination from the State Historic Preservation Officer.

**Criterion D – Nexus to Reclamation (10 Points)**

- **Is the project connected to a Reclamation project or activity?**
  - Yes. The District is part of the Reclamation’s Rogue River Basin Project – Talent Division. The District signed a contract with Reclamation for the rehabilitation and enlargement of the system. As a result, the District in 1960 quitclaimed the system to the Bureau of Reclamation recorded in Vol. 495 Page 375 of the Official Records of Jackson County, Oregon.
- **Will the project benefit any tribe(s)?**
  - This project will not benefit any tribe.

**Criterion E – Department of the Interior Priorities (10 Points)**

- **Modernizing our infrastructure.**
  - The existing concrete lining has cracked allowing water to escape the canal prism. In addition the turbidity of the water over the cracks has undermined the concrete lining creating a backwash removing the subgrade behind the concrete wall. Replacing the concrete liner with reinforced shotcrete will reduce the water loss and the buildup of sediment in the canal prism which promotes vegetation growth.

**PROJECT BUDGET**

**Funding Plan**

The estimated cost of this project is \$37,223. The District is requesting a 50% cost-share of \$18,612 under this grant opportunity. No other funding sources have been identified. The District will provide at least 50% of the estimated project costs through in-kind contributions, estimated at \$14,710\*, and monetary contributions, estimated at \$3,902 derived from the District’s general operating funds. The District does not anticipate any pre-award costs and has not included any in the proposed budget.

**Table 1. Summary of Non-Federal and Federal Funding Sources**

FUNDING SOURCES		AMOUNT
Non Federal Entities		
1) Talent Irrigation District		\$18,612
Labor*	\$9,581	

*WaterSMART Small-Scale Water Efficiency Projects FOA No. BOR-DO-18-F009*

Equipment (District Owned)*	\$1,854	
De minimus 10%*	\$3,275	
Monetary Contribution	\$3,902	
<b>REQUESTED RECLAMATION FUNDING</b>		<b>\$18,611</b>

**Budget Proposal**

**Table 2. Estimated Project Costs**

<b>BUDGET ITEM DESCRIPTION</b>	<b>\$/Unit</b>	<b>Quantity</b>	<b>Qty Type</b>	<b>TOTAL COST</b>
<b>Salaries &amp; Wages</b>				
Program Mngr - Jim Pendleton	INCLUDED IN DE MINIMUS COSTS BELOW			
Foreman	\$23.02	10.0	hour	\$230
<i>General Laborers</i>				
Laborer #4	\$16.32	56.0	hour	\$914
Laborer #6	\$17.15	61.0	hour	\$1,046
Laborer #8	\$17.15	56.0	hour	\$960
Laborer #9	\$19.34	56.0	hour	\$1,083
Laborer #11	\$23.01	56.0	hour	\$1,289
<b>Total Salaries &amp; Wages</b>				<b>\$5,522</b>
<b>Fringe Benefits</b>				
Project Mngr - Jim Pendleton	INCLUDED IN DE MINIMUS COSTS BELOW			
Foreman	\$17.49	10.0	hour	\$175
<i>General Laborers</i>				
Laborer #4	\$7.44	56.0	hour	\$417
Laborer #6	\$12.61	61.0	hour	\$769
Laborer #8	\$14.44	56.0	hour	\$809
Laborer #9	\$15.73	56.0	hour	\$881
Laborer #11	\$18.01	56.0	hour	\$1,009
<b>Total Fringe Benefits</b>				<b>\$4,059</b>
<b>Equipment (District Owned)</b>				
Various Pickups	\$0.545	128.0	miles	\$70
#8 Equipment Hauler	\$47.09	4.0	hour	\$188
#83 Ziemann Trailer	\$3.47	4.0	hour	\$14
#185 Air Compressor	\$13.07	48.0	hour	\$627
#204 Concrete Pump	\$25.98	16.0	hour	\$416
#313 Case Excavator	\$33.70	16.0	hour	\$539
<b>Total Equipment Use</b>				<b>\$1,854</b>
<b>Supplies and Materials</b>				
4000psi Shotcrete w/Stealth Fiber	\$170.50	125.0	cubic yard	\$21,313
<b>Total Material</b>				<b>\$21,313</b>
<b>TOTAL DIRECT COSTS</b>				<b>\$32,748</b>
<b>Indirect Costs</b>				
de minimus	10%		\$32,748	<b>\$3,275</b>
<b>Environmental Compliance</b>				<b>\$1,200</b>
<b>TOTAL ESTIMATED PROJECT COSTS</b>				<b>\$37,223</b>

## Budget Narrative

### Salaries and Wages

The Program Manager is the District Manager, Jim Pendleton.

**By the submittal of this application, I, Jim Pendleton, certify that the labor rates included in the budget proposal represent the actual labor rates of the identified personnel.** These rates are to be taken as estimates only. Increases to wages and salaries are determined annually by the Board of Directors during the budgeting process. If given, they become effective on October 1<sup>st</sup> of each year. Since this project will take place after October 1, 2018, actual labor costs applicable to that time period will be used in determining the District's in-kind contribution.

The administrative staff will prepare the documents necessary for compliance with the reporting requirements of this agreement, including the final project report, with oversight by the Program Manager. Since this proposed project is scheduled to be completed within a 9 month period, the District anticipates producing one semi-annual report and a final report. The estimated time needed to meet reporting requirements is 10 hours. This cost is included in the 10% de minimus of the proposed budget.

**Table 3. Estimated Labor Cost By Task**

TASK DESCRIPTION	DIRECT LABOR RATE	FRINGE BENEFIT RATE	# of Hours	DIRECT LABOR TOTAL	FRINGE BENEFIT TOTAL	Total Each Task
<b>Regulatory Compliance</b>						
Bureau of Reclamation Personnel						
<b>Program Management: Oversight</b>						
Program Manager	INCLUDED IN DE MINIMUS					
<b>Construction Supervision</b>						
Foreman	\$ 23.02	\$ 17.49	10	\$230.20	\$174.90	\$405.10
<b>Site Prep</b>						
Laborer #4	\$ 16.32	\$ 7.44	32	\$522.24	\$238.08	\$5,158.40
Laborer #6	\$ 17.15	\$ 12.61	32	\$548.80	\$403.52	
Laborer #8	\$ 17.15	\$ 14.44	32	\$548.80	\$462.08	
Laborer #9	\$ 19.34	\$ 15.73	32	\$618.88	\$503.36	
Laborer #11	\$ 23.01	\$ 18.01	32	\$736.32	\$576.32	
<b>Shoot Shotcrete</b>						
Laborer #4	\$ 16.32	\$ 7.44	24	\$391.68	\$178.56	\$3,868.80
Laborer #6	\$ 17.15	\$ 12.61	24	\$411.60	\$302.64	
Laborer #8	\$ 17.15	\$ 14.44	24	\$411.60	\$346.56	
Laborer #9	\$ 19.34	\$ 15.73	24	\$464.16	\$377.52	
Laborer #11	\$ 23.01	\$ 18.01	24	\$552.24	\$432.24	
<b>Monitoring</b>						
Laborer #6	\$ 17.15	\$ 12.61	5	\$85.75	\$63.05	\$148.80
<b>Reporting Requirements</b> - project management and administrative costs included in 10% de minimus						
<b>TOTALS</b>			<b>295</b>	<b>\$5,522</b>	<b>\$4,059</b>	<b>\$9,581</b>

**Fringe Benefits**

The Fringe Rates used in the budget proposal are provisional rates for billing purposes based on current costs and should be taken as estimates only. Since construction of this project will take place after October 1, 2018, actual fringe benefit costs applicable to that time period will be used in determining the District’s in-kind contribution. The table below identifies the fringe benefit and the rate calculated for each position as reported in the proposed budget.

**Table 4. Fringe Rates**

<b>Position</b>	<b>Retire-ment</b>	<b>FICA</b>	<b>Health Ins</b>	<b>St Emp Ins</b>	<b>Workers Comp Ins</b>	<b>Leave Accrual</b>	<b>Veh. Allow.</b>	<b>Fringe Rate</b>
Prog. Mngr	11.62	3.76	10.96	.06	.21	3.33	1.15	31.09
Foreman	5.52	1.79	7.53	.03	.97	1.30	.35	17.49
Laborer #4	2.47	1.27	2.21	.02	.69	.43	.35	7.44
Laborer #5	2.17	1.12	5.47	.02	.61	.28	.24	9.91
Laborer #6	2.54	1.31	7.10	.02	.73	.91	.00	12.61
Laborer #8	4.11	1.33	7.10	.02	.73	.91	.24	14.44
Laborer #9	4.77	1.55	7.10	.02	.82	1.23	.24	15.73
Laborer #11	5.65	1.83	7.72	.03	.97	1.81	.00	18.01

**Travel**

No travel expenses are anticipated and are not included in the proposed budget.

**Equipment**

The District will use its own equipment on this proposed project. The usage rates have been calculated using the United States Army Corps of Engineers Construction Equipment Ownership and Operating Expenses Schedule and the Standard Mileage rate published by the United States Treasury, Internal Revenue Service.

The District’s equipment rates for 2018 are below:

<b>EQUIPMENT RATES USING THE ARMY CORP OF ENGINEERS CONSTRUCTION EQUIPMENT OWNERSHIP &amp; OPERATING SCHEDULE FOR REGION VIII DATED 11/30/2016</b>				
<b>REVISED 01/01/2018</b>		<b>2018 RATES</b>		
<b>#</b>	<b>DESCRIPTION</b>	<b>MILE</b>	<b>HOURLY</b>	<b>STANDBY</b>
1	82 MILITARY CEMENT TRK		38.20	4.51
3	81 INTL DUMP TRK - 5 YD		22.03	2.50
4	80 KENWORTH DUMP TRK - 10 YD		56.40	5.43
8	88 PETERBILT LOWBOY		47.09	5.35
10	78 MILITARY TRK/BOOM		25.76	0.99
11	78 FORD TRK/BOOM		25.76	0.99
14-60	VARIOUS PASSENGER VEH	IRS SMR		
75	13 KUBOTA TRACK LOADER		15.47	2.10
83	99 ZIEMAN TRAILER		3.47	0.86
91	08 KUBOTA EXCAVATOR		10.17	2.14
121	04 KUBOTA EXCAVATOR		11.61	2.03

130	02 CASE EXCAVATOR		28.35	5.21
135	CEMENT MIXER		2.09	0.20
185	AIR COMPRESSOR		13.07	1.18
200	WELDER		1.19	0.13
204	85 THOMSEN CONCRETE PUMP		25.98	3.20
207	CHIPPER		14.04	1.46
312	97 CAT EXCAVATOR		30.37	5.43
313	09 312DL CAT EXCAVATOR		33.70	7.26
334	99 BOBCAT EXCAVATOR		10.37	1.66
550	95 JD CRAWLER/DOZER		40.37	5.42
580	90 CASE BACKHOE		16.20	1.54
600	D-6 CAT/DOZER		43.27	1.90

**Materials and Supplies**

A quote for the shotcrete with fiber was obtained from a local vendor. If this project is awarded, the District will follow its policies and procedures for the procurement of materials and supplies.

**Contractual**

There is no contractual cost budget for this project.

**Environmental and Regulatory Compliance Costs**

The District contacted the Bureau of Reclamation for cost estimates relating to environmental and cultural resources compliance. Reclamation’s Archeologist does not anticipate an Adverse Effect on any cultural resources in relation to this project. The Environmental Protection Specialist anticipates the project qualifies for a Categorical Exclusion Checklist. The estimates are as follows and are included in the budget proposal:

- Environmental and Regulatory Compliance: \$200
- Historical and Cultural Resources Compliance: \$1,000

**Other Expenses**

No other expenses are anticipated for this project.

**Indirect Costs**

Included in the District’s budget is a *de minimis* rate of 10% of the modified total direct costs which will cover Project Management and administrative costs.

**Table 5. Total Costs**

<b>TOTAL</b>	<b>IN-KIND</b>	<b>MONETARY</b>	<b>TOTAL</b>	<b>PERC.</b>
NON-FEDERAL:TID	\$14,710	\$3,902	\$18,612	50%
FEDERAL: Reclamation	\$1,200	\$17,411	\$18,611	50%

## **ENVIRONMENTAL AND CULTURAL RESOURCE COMPLIANCE**

- **Will the proposed project impact the surrounding environment (i.e. soil [dust], air, water [quality and quantity], animal habitat, etc.)? 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 District will excavate, repack and reshape the canal prism before applying the reinforced shotcrete material. The project will have no impact on the surrounding environment as all work will be completed within the canal easement. Since this project will occur during the off-season, no water will be in the canal. Dust should not be a problem as all activities will occur during the fall and winter months.

- **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?**  
No.
- **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?”**  
No.
- **When was the water delivery system constructed?**  
The Talent Main Canal was constructed in the early 1920s and enlarged in 1958.
- **Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals or flumes). If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.**  
The original concrete lining was placed in 1958.
- **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.**  
Yes, the canals themselves are eligible in addition to many structures of the irrigation system.
- **Are there any known archeological sites in the proposed project area?**

There are no known archeological sites within the proposed project area.

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

This project will have no effect 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?**

No.

- **Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?**

No.

## **REQUIRED PERMITS OR APPROVALS**

No permits are required for this project.

**OFFICIAL RESOLUTION  
OF THE BOARD OF DIRECTORS OF  
TALENT IRRIGATION DISTRICT**

WHEREAS, the Bureau of Reclamation requests an official resolution to commit applicants of WaterSMART: Small-Scale Water Efficiency Projects, Funding Opportunity No. BOR-DO-18-F009 to the financial and legal obligations associated with receipt of WaterSMART grant financial assistance,

WHEREAS, the Talent Irrigation District must maintain, provide for, and service our existing irrigation water delivery system,

WHEREAS, the District desires to conserve water and manage its water supply more efficiently by replacing the concrete liner with reinforced shotcrete on the Talent Main Canal downstream of the Bear Creek Siphon,

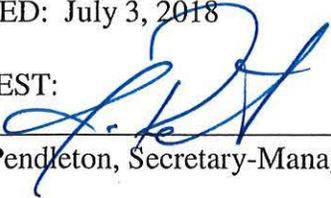
WHEREAS, the District desires to obtain grant funding from the Bureau of Reclamation through the WaterSMART: Small-Scale Water Efficiency Projects for Fiscal Year 2018, Funding Opportunity No. BOR-DO-18-F009.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of the Talent Irrigation District agrees and authorizes that:

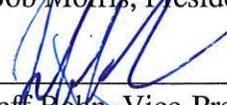
- They have the legal authority and can authorize, Jim Pendleton, Secretary/Manager, to enter into this agreement;
- They have reviewed and support the application submitted;
- The Talent Irrigation District is capable of providing the amount of funding specified in the funding plan; and
- The Talent Irrigation District will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement.

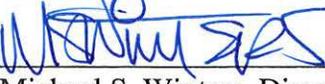
DATED: July 3, 2018

ATTEST:

  
\_\_\_\_\_  
Jim Pendleton, Secretary-Manager

  
\_\_\_\_\_  
Bob Morris, President

  
\_\_\_\_\_  
Jeff Bohm, Vice-President

  
\_\_\_\_\_  
Michael S. Winters, Director  
Constituting the Board of Directors of  
the Talent Irrigation District