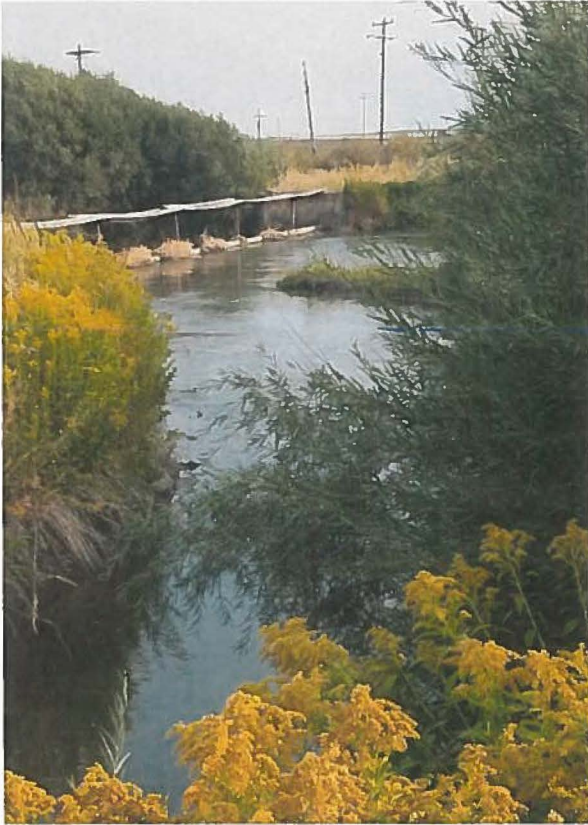


Arco Diversion Conveyance Project



**Application for
WaterSMART Grant
Funding Opportunity
Announcement No.
BOR-DO-21-F001
Funding Group I
Water and Energy
Efficiency Grants**

Submitted To: Bureau of Reclamation
Financial Assistance Operations
Attn: Mr. Ned Weakland
Denver Federal Center
Bldg 67, Rm 152
6th Avenue and Kipling Street
Denver, CO 80225

SEP 17 '20 AM 11:06

Submitted by: Arco Diversion Conveyance Lateral Pipeline Association
Attention: Mike Telford, President
PO Box 827
Arco, ID 83213

Arco Diversion Conveyance Project

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Arco Diversion Conveyance Project

1.0 Executive Summary

The Arco Diversion Conveyance Lateral Pipeline Association (Association) is located in the City of Arco, Butte County, Idaho. The Arco Diversion Conveyance Project is located mostly north of the city, with one pipeline running through the city. This project consists of three phases which will ultimately result in improvements that will reduce losses from leakage in more than 12 miles of canals in the Association's delivery system. The Association presently experiences losses averaging more than fifty percent in their system, resulting in increased pumping costs and routine crop losses. The pipelines to be constructed in Phase 1 of this project will result in an annual savings of 736 acre-feet of water, which will be applied to a beneficial use in the Association's delivery system, and an average annual savings of \$103,000 in pumping power costs. This project is not located on federal lands. Phase 1 of this project is anticipated to be completed by the end of 2021.

2.0 Location

The project is located in southeastern Idaho, mostly north of the town of Arco, as generally depicted in Figures 1 and 2. The project consists of two pipelines to replace existing ditch conveyances. Phase 1 of the Arco Pipeline begins at Lat/Long 43°42'38.67"N 113°20'46.25"W and picks up water from three wells, ending at Lat/Long 43°39'05.57"N 113°19'01.44"W. Phase 1 of the Munsey Pipeline begins at Lat/Long 43°43'07.24"N 113°21'05.00"W and picks up water from 3 wells, ending at Lat/Long 43°42'00.17"N 113°20'42.59"W.

The project consists of three phases. This application for funding pertains to Phase 1 only, but all three phases are depicted for illustration purposes.

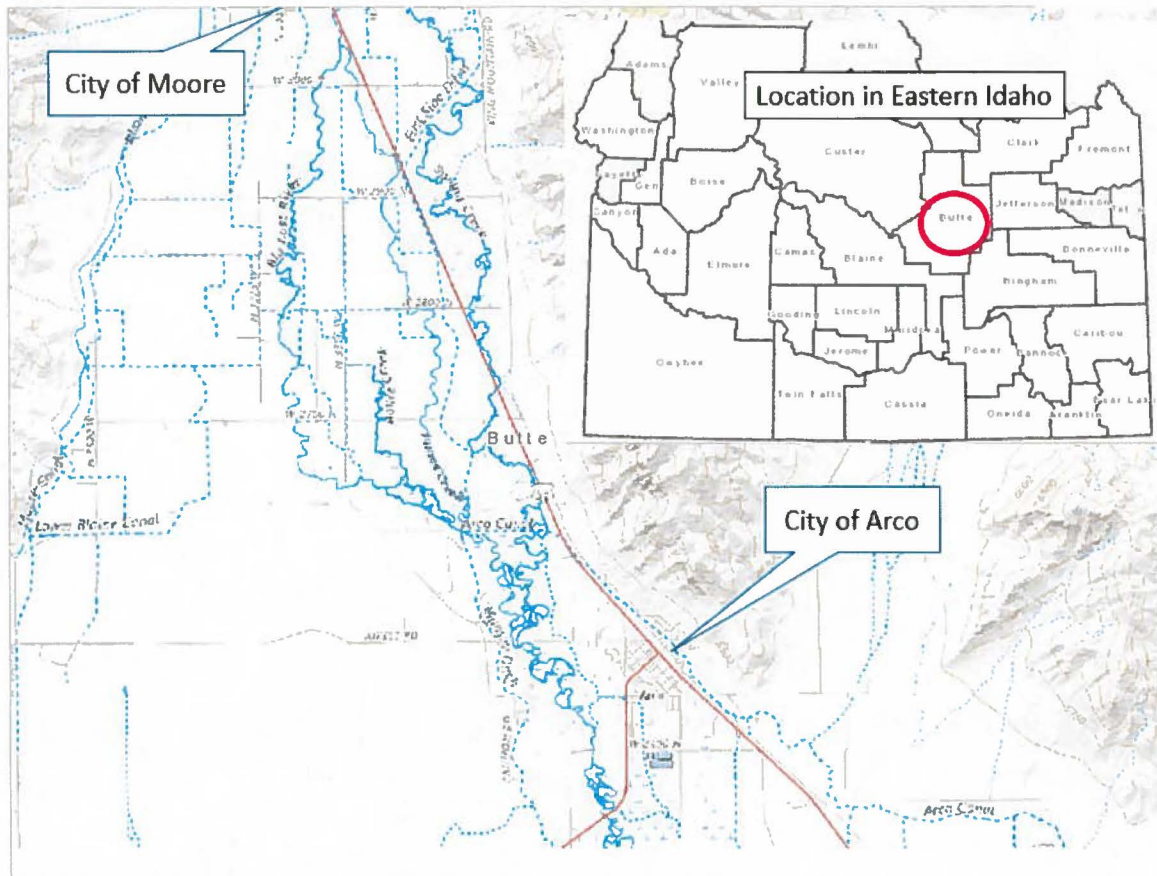


Figure 1. General Location of the Project.

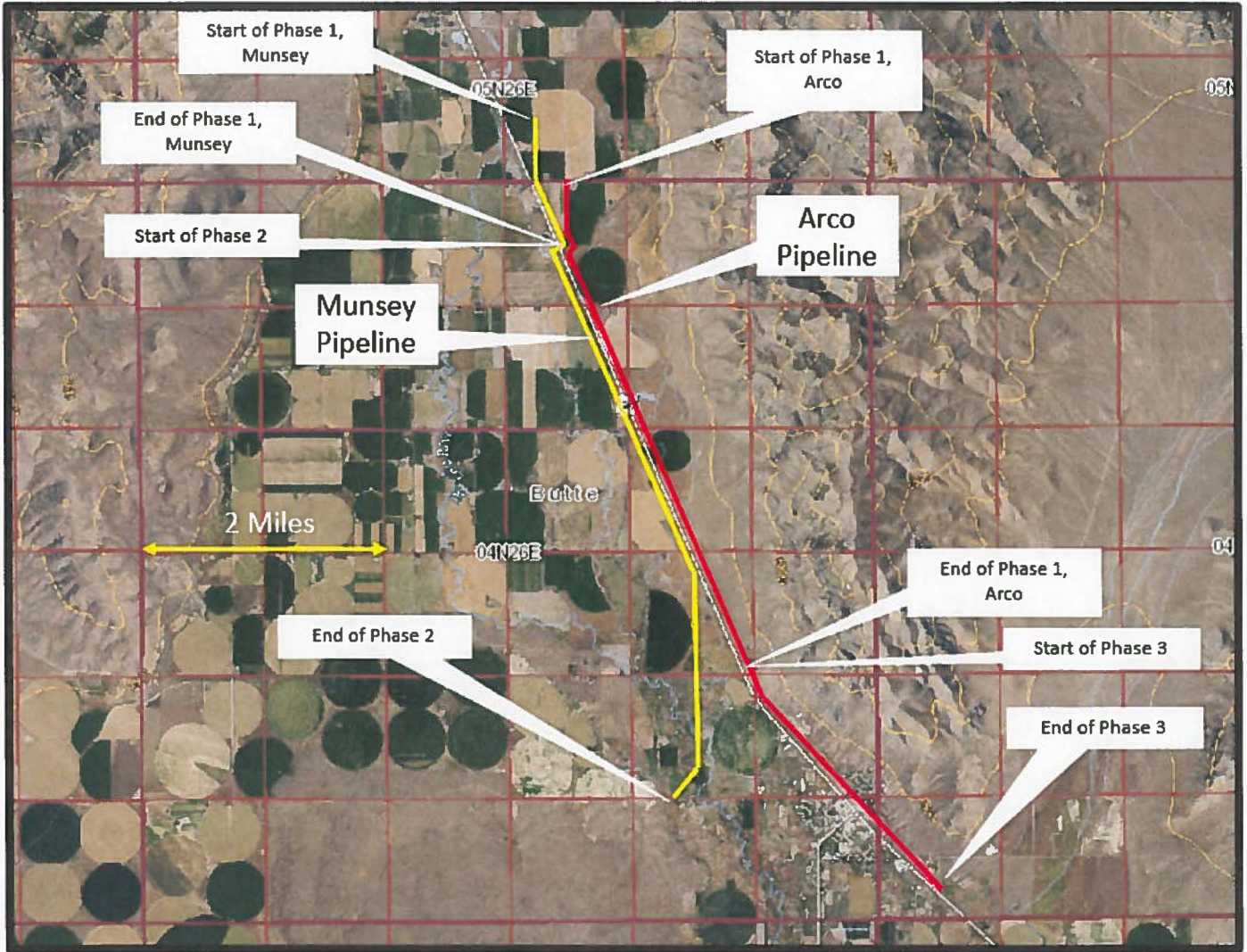


Figure 2. Locations of the Proposed Pipelines.

3.0 Technical Project Description

3.1 General Description

The Arco Diversion Conveyance Project is located in Butte County, Idaho at an approximate elevation of 5,400 feet above mean sea level in a high desert environment that characterizes the Eastern Snake River Plain. The area receives, on average, 11 inches of precipitation each year which mostly is accounted for in the snow the area receives during the winter months. Irrigation and irrigation projects are responsible for much of the economic development in the area.

The Arco Diversion Conveyance Lateral Pipeline Association was formed to better manage water conveyed from wells by replacing long and leaky canals with pipelines. The Association consists of eight water users holding seventeen water rights with source of ground water totaling a diversion capacity of 57.77 cubic feet per second as depicted in Table 1.

Privately Decreed Water Right(s) Holder	Water Right Nos.	Diversion WMIS Number	Water Right Diversion Rate	% of Total Water Rights	LDWUA Votes (1 per .02 cfs)
PARKINSON FARMS	34-7176 & 34-12368	187	7.8	13.50%	390.0
MARK AND PAIGE TELFORD	34-4132, 34-10058, & 34-13569	33	3.67	6.35%	183.5
SUNSET FARM & RANCH LLC	34-14772, 34-2277, & 34-2480B	32	6.86	11.87%	343.0
STANDLEE HAY COMPANY	34-7028A, 34-7234, & 34-2480A (6.6 cfs)	188 (Toone Well)	12.76	22.09%	638.0
	34-2509 & 34-7226B (6.16 cfs)	78 (West Lower Well) 80 (East Lower Well)			
TELFORD LANDS LLC	34-7037, 34-2401A, and 34-4015	31 (South Island Well) 186 (North Island Well)	17.34	30.02%	867.0
AARON AND DESAREE TELFORD	34-7100	33	2.72	4.71%	136.0
JAY AND DEANN JENSEN	34-2357B	166	2	3.46%	100.0
LOST RIVER FARMS	34-7205	34	4.62	8.00%	231.0
TOTALS	N/A		57.77	100.00%	2888.50

Table 1. Water Rights of Association Members.

A schematic of the upper end of the project is provided as Figure 3 below.

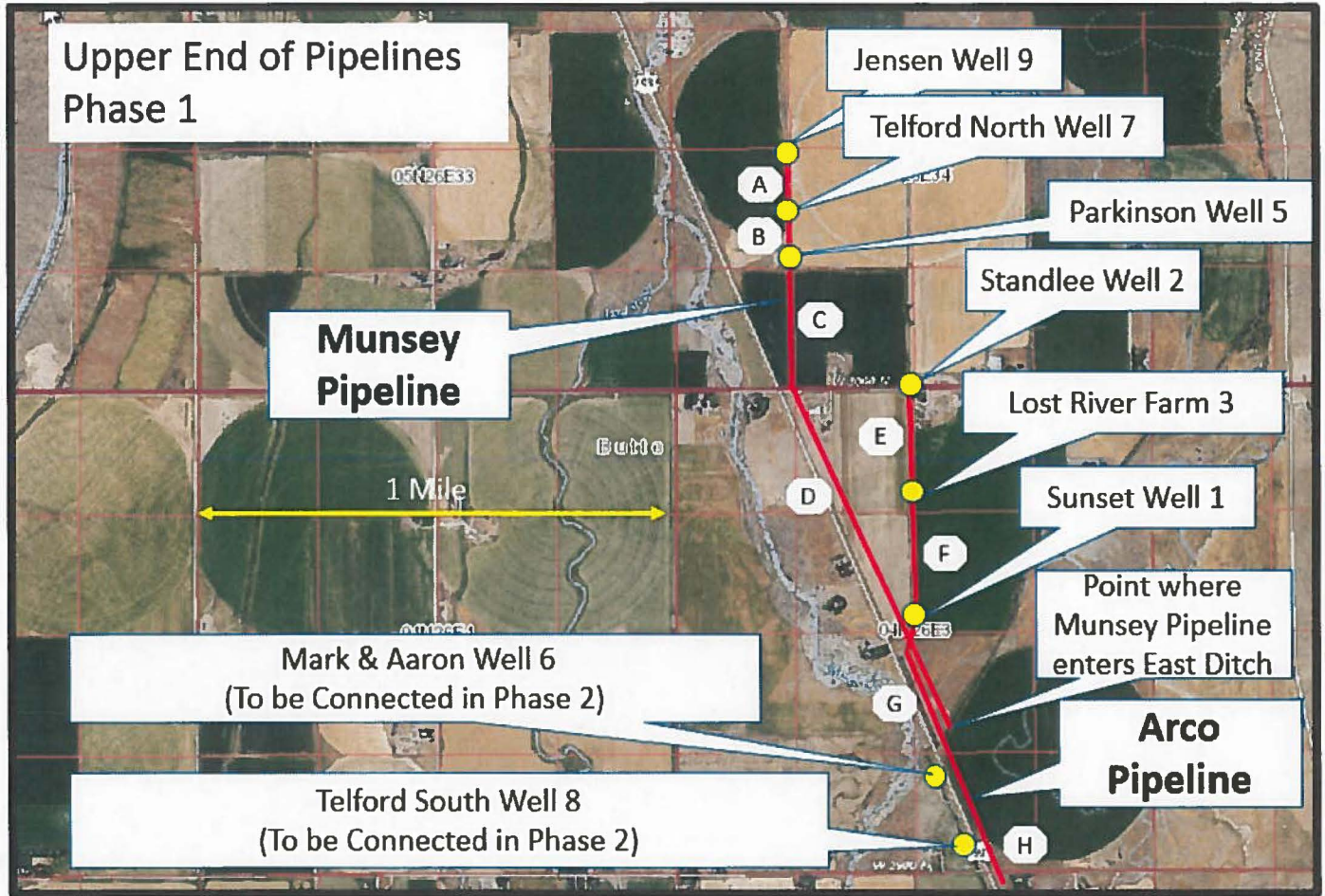


Figure 3. Upper End of the Project

3.2 Phasing

This project has been divided into three phases due to its large scale and cost. This document focuses on Phase 1 as this is the portion for which funding is requested. However, a brief description of all three phases is provided to portray the concept of the entire project. These phases are depicted in Figure 2.

- 3.2.1 Phase 1 is in two parts, including part of the Arco Pipeline and part of the Munsey Pipeline. The Arco Pipeline is proposed to be installed from the point of beginning downstream to a location where the pipeline discharges into the Arco Canal. This results in seepage savings in a long reach of the canal. The Munsey Pipeline is proposed to be installed from the point of beginning to a location where the pipeline discharges into the East Canal.
- 3.2.2 Phase 2 includes the remainder of the Munsey Pipeline.
- 3.2.3 Phase 3 includes the remainder of the Arco Pipeline.

3.3 Allocation of Flows and Savings

The canals that convey the water from these wells experience high losses as evidenced by records compiled by the Big Lost Irrigation District and the Idaho Department of Water Resources via the Water Management Information System (WMIS). The losses are summarized in Table 2 for the Arco Pipeline and Table 3 for the Munsey Pipeline. Supporting documentation is voluminous, comprising a stack of paper 14 inches high, and thus has been estimated by staff of the District. One challenge of loss computations is the variability from year to year depending on available water supply and hence the amount of mixing between surface water flows and water supplied by wells. If surface water in the canals is plentiful, as happened in the rare case of 2017, the loss of the well water in the canals due to seepage and evaporation is inconsequential and thus was counted as zero by the District. During times when only well water is available in the canals the loss can be as high as 80%, thus causing the well owners to curtail diversions due to pumping expenses.

In the experienced judgement of the Manager of the Big Lost River Irrigation District (see Appendix D), a reasonable average loss in the conveyances from the wells on the Arco Pipeline to the point where the pipeline crosses the Arco Canal is 20%, as reflected in Table 2. This reach is identified as the "Abbreviated Reach." Losses from the Abbreviated Reach downstream to the end point of the proposed pipeline are identified as "Average Shrink Loss." These losses will be removed by construction of the Phase 3 pipeline. Thus, they are identified in Table 2 for informational purposes but are not included in the computation of benefits for Phase 1.

It must be emphasized that the estimates of the average losses are based on significant measuring efforts by the Big Lost Irrigation District, but due to the great variability in climate and moisture conditions these numbers vary widely. The estimate provided by the Manager of the Big Lost River Irrigation District is an attempt to place a number on a highly variable situation where during dry years the members of the Association are significantly economically impacted by the losses, providing the impetus for this pipeline construction project.

Well No.	ARCO Pipeline									Phase 1 Savings (af per year)	Phase 2 Savings (af per year)	Phase 3 Savings (af per year)
	SUNSET	WMIS#	H.P.	2016	2017	2018	2019	2020	Anticipated Average			
1		32	200	0	0	0	0	1815	1815			
	Abbreviated Reach % Loss			20	20	20	20	20				
	Useable Water A/F-AR%			0	0	0	0	1452	1361	363		
	Average Shrink Loss %			32	0	33	38	35				
	Useable Water A/F-AV%			0	0	0	0	944	885			508
	Total Loss							871	871			
	This well has not been used recently because losses are so high the previous owner left ground idle. It is planned to be reinstated.											
2	STANDLEE	188		700	0	683	541		641			
	Abbreviated Reach % Loss			20	20	20	20	20				
	Useable Water A/F-AR%			560	0	546	433	0	489	152		
	Average Shrink Loss %			32	0	33	38	35				
	Useable Water A/F-AV%			381	0	366	268		317			172
	Total Loss			319	0	317	273	0	303			
3	LOST RIVER FARM	34	100	798	0	106	286	798	497			
	Abbreviated Reach % Loss			20	20	20	20	20				
	Useable Water A/F-AR%			639	0	84	229	638	398	99		
	Average Shrink Loss %			32	0	33	38	35				
	Useable Water A/F-AV%			434	0	57	142	415	262			136
	Total Loss			364	0	49	144	383	235			
	Phase 1, Arco Pipeline Totals									614	0	816

Table 2. Arco Pipeline Water Use and Seepage Reductions

Well No.	Munsey Pipeline									Phase 1 Savings (af per year)	Phase 2 Savings (af per year)	Phase 3 Savings (af per year)
	Parkinson	WMIS#	H.P.	2016	2017	2018	2019	2020	Anticipated Average			
5		187	200	1321	613	1014	713	1321	996			
	Abbreviated Reach % Loss			5	5	5	5	5	5			
	Useable Water A/F -AR%			1254	583	963	677	1254	946	50		
	Remaining Shrink Loss %			15	15	15	15	15	15			
	Useable Water A/F -AV%			1066	495	819	575	1066	804		142	
	Total Loss			254	118	195	137	254	192			
6	Mark & Aaron	33		614		421	121	613	442			
	Average Shrink Loss %			15	15	15	15	15				
	Total Loss			92	0	63	18	92	66		66	
7	Telford North	186	200	1408	85.57	1078.89	720.04	1408	940			
	Abbreviated Reach % Loss			5	5	5	5	5	5			
	Useable Water A/F -AR%			1338	81	1025	684	1338	893	47		
	Remaining Shrink Loss %			15	15	15	15	15	15			
	Useable Water A/F -AV%			1137	69	871	581	1137	759		134	
	Total Loss			352	21	270	180	352	181			
8	Telford South	31	200	1539	693	469	499	1539	948			
	Average Shrink Loss %			15	15	15	15	15				
	Total Loss			231	104	70	75	231	142		142	
9	Jay Jensen	166	200	901	0	0	87		494			
	Abbreviated Reach % Loss			5	5	5	5	5	5			
	Useable Water A/F -AR%			856	0	0	83	0	469	25		
	Remaining Shrink Loss %			15	15	15	15	15	15			
	Useable Water A/F -AV%			728	0	0	70	0	399		70	
	Total Loss			225	0	0	22	0	95			
	Munsey Pipeline Totals									122	555	0
	Arco Pipeline Plus Munsey Pipeline Totals									736	555	816

Table 3. Munsey Pipeline Water Use and Seepage Reductions, with Totals of Losses in Both Pipelines, by Phase

3.4 Pipeline Design and Costs

A pipeline design has been prepared by Mr. Terrel Kidd, an experienced pipeline designer and supplier from Blackfoot Idaho. Mr. Kidd has identified optimum pipe sizes based on flows from the wells in both the Arco Pipeline and the Munsey Pipeline. A schematic of the design is provided as Figure 3. As depicted in Tables 4 and 5, costs for Phase 1 have been computed for each of the pipeline segments, as well as for connections, road crossings, etc. While these costs are accurate for present conditions, they will likely be changed at the time of construction. Nevertheless, they provide an excellent estimate of the ultimate costs of the project. While the focus of this application is Phase 1, the information for Phases 2 and 3 is provided in Tables 6 and 7 as an indication of the ultimate scope of this project.

Arco Pipeline		
Phase 1. Standlee Well to Crossing at Arco		
Items	Cost	Segment on Figure 1
1270' of 18" Pipe	\$ 15,380	E
1400' of 24" Pipe	\$ 31,276	F
2600' of 21" Parallel Pipes	\$ 45,656	G
38000' of 21" Parallel Pipes	\$ 667,280	H
Install 18" Pipe	\$ 3,810	
Install 24" Pipe	\$ 7,000	
Install 21" Parallel Pipes	\$ 75,500	
Crossing East side canal	\$ 4,000	
Standlee Inlet	\$ 1,000	
Lost River Farm Inlet	\$ 1,500	
Sunset Inlet	\$ 3,000	
Elbows	\$ 14,000	
Air vents	\$ 10,000	
Country Rd Crossings	\$ 6,000	
Totals	\$ 885,402	

Table 4. Costs for Phase 1 Arco Pipeline Installation

Munsey Pipeline		
Phase 1. Jensen Well to Road Crossing.		
Items	Cost	Segment on Figure 1
1100' of 18" Pipe	\$ 13,321	A
600' of 21" Pipe	\$ 10,538	B
4550' of 21" Pipe	\$ 79,898	C
4500' of 24' Pipe	\$ 101,647	D
Jensen Inlet	\$ 1,000	
Telford Inlet	\$ 3,000	
Parkinson Inlet	\$ 3,500	
Elbows and Tees	\$ 5,000	
Air vents, tees	\$ 4,000	
Pipe Install	\$ 42,700	
Total	\$ 264,604	

Table 5. Costs for Phase 1 Munsey Pipeline Installation

The following information on Phases 2 and 3 is provided as background, but these costs are not included in this proposal.

Munsey Pipeline		
Phase 2. Road Crossing to River Diversion.		
Road Crossing Using Existing	\$ 40,000	
600' of 21" Pipe	\$ 10,538	
600' of 24" Pipe	\$ 13,404	
1800' of 27" Pipe	\$ 55,404	
48400' of 30" Pipe (19000 x	\$ 1,734,168	
Elbows and Tees	\$ 5,000	
County Road Crossings	\$ 6,000	
Private Road Crossings	\$ 10,000	
Air vents, tees	\$ 36,000	
Pipe Install	\$ 397,975	
River Crossing. No water, pumpouts and blocking	\$ 10,000	
Total	\$ 2,318,489	

Table 6. Costs for Phase 2 Munsey Pipeline Installation

Arco Canal Part 2 – Phase 3	
Highway Crossing at Arco to Liner	
Items	Costs
15200' of 21" Parallel Pipes	\$ 533,824
Elbows	\$ 4,000
Termination	\$ 3,000
Pay road crossings	\$ 6,000
Vents	\$ 10,000
Install 21" Parallel Pipes	\$ 165,710
Totals	\$ 722,534

Arco Canal Part 3 – Phase 3	
Standlee Spraker Well to East side of Highway	
Items	Costs
2100' of 12" Pipe	\$ 12,000
Inlet @ Well	\$ 650
Install Pipe	\$ 4,500
Cross Highway in Existing Path	\$ 4,500
Tie-in to Existing Pipeline	\$ 3,000
Totals	\$ 24,650

Table 7. Costs for Phase 3 Arco Pipeline Installation

4.0 Technical Proposal Evaluation Criteria

4.1 Quantifiable Water Savings

The water savings resulting from this project are quantified in Tables 2 and 3 above. The wells providing water along the Arco and Munsey pipelines have traditionally diverted into canals for conveyance to lands south of Arco. Credit for water diverted into the canals has been subject to a shrink factor computed by and administered by the Big Lost Irrigation District (BLID). This shrink has varied from a low of zero percent during periods of high flows to a high of eighty percent during periods when only well water was placed in the canals. As supported in the letter from the Manager of the BLID in Appendix D, the shrink is computed in two parts. The shrink from the wells to the conveyance ditch is estimated to average about 20 percent. The shrink from the conveyance ditch to the farms on the Arco Canal during the past four years has ranged from zero in 2017 (an

exceptionally good water year) to 38 percent, with a value typically in the mid-thirties. Thus, the shrink is divided into two parts – from the well to the conveyance ditch and then through the conveyance ditch. Tables 2 and 3 specify this information for each well, and further show the project phases intended to install pipelines that will additionally reduce losses.

In response to the specific questions in the announcement for this award opportunity:

- The water savings in this project will result from piping water that historically has been conveyed via canals and subject to seepage and evaporation losses.
- The annual water savings estimate for Phase 1 as identified in Tables 2 and 3 is a total of 736 acre-feet per year.
- Canal seepage savings will be identified by the Manager of the BLID and his staff. After piping, the losses will be reduced from the values shown in Tables 2 and 3 to zero.
- The material being used for piping will be 100 pound PVC pipe, resulting in effectively no water loss.

4.2 Water Supply Reliability

This project will increase water supply reliability by reducing seepage losses and making more water available for on-farm purposes. With an average annual rainfall of about 11 inches in the area, of which most is supplied during the winter months, the only vegetation without irrigation is sagebrush and periodic clumps of native grasses. Thus, during times of irrigation water shortage crops are reduced. The amount of crop production is highly proportionate to water available.

Phase 1 of this project is projected to save 736 acre-feet of water annually. Economic impacts of this water can be calculated as follows:

Using an average application of 1.75 af/acre, 736 af will grow 420 acres more of crop in an average year. At an average of 6 tons of alfalfa hay per acre the yield from this water savings will be 2,522 tons of hay. At an average price of \$150 per ton, the economic impact in an average year is \$378,334.

To address the specific questions in this award announcement:

- Water supplies in this part of Idaho are chronically short. Thus, additional water supply translates into additional crop production and crop value.
- This project will increase the reliability of the water supply by reducing the shrink of pumped water due to seepage in conveyance canals.

4.3 Implementing Hydropower

On one hand this project does not implement hydropower. On the other hand, local power supplies are enhanced by reducing the requirement for pumping to supply a given amount of water to the crops. This impact gives rise to the letter of support of this project provided by the local supplier of electricity, Lost River Electric Cooperative, Inc., provided in Appendix D.

The predicted savings of electricity can be computed by reviewing the power records at two of the wells, which are summarized as follows:

Co-op #402 (WMIS 186) (Well #7 on Figure 3)

2018 ---- \$15,216.11

2019 ---- \$13,447.08

2020 YTD ---- \$21,037.60

Co-op #583 (WMIS 31)(Well #8 on Figure 3)

2018 ---- \$10,348.64

2019 ---- \$10,705.36

2020 YTD ---- \$17,025.20

Extrapolating the costs from these two wells enables estimation of power savings in the project via implementation of Phases 1, 2 and 3 as identified in Table 8.

Well No.	ARCO and Munsey Pipelines			Anticipated Average	Phase 1	Phase 2	Phase 3	2018	2019	2020 YTD	Avg	Phase 1	Phase 2	Phase 3
	WMIS#	H.P.			Water Savings (af per year)	Water Savings (af per year)	Water Savings (af per year)	Power Cost (\$/year)	Power Cost (\$/year)	Power Cost (\$/year)	Power Cost \$/af	Avg Power Savings (\$ per year)	Avg Power Savings (\$ per year)	Avg Power Savings (\$ per year)
1	Sunset	32	200	1815	363	508						\$ 50,820	\$ -	\$ 71,120
2	Standlee	188	200 est.	641	152	172						\$ 21,280	\$ -	\$ 24,080
3	Lost River Farm	34	100	422	99	136						\$ 13,860	\$ -	\$ 19,040
5	Parkinson	187	200	996	50	142						\$ 7,000	\$ 19,880	\$ -
6	Mark & Aaron	33	200 est.	442		66						\$ -	\$ 9,240	\$ -
7	Telford North	186	200	940	47	134	\$ 15,216	\$ 13,447	\$ 21,038	\$ 159	\$ 6,580	\$ 18,760	\$ -	\$ -
8	Telford South	31	200	948		143	\$ 10,348	\$ 10,705	\$ 17,025	\$ 121	\$ -	\$ 20,020	\$ -	\$ -
9	Jay Jensen	166	200	494	25	70						\$ 3,500	\$ 9,800	\$ -
Arco Pipeline Plus Munsey Pipeline Totals					736	555	816					\$ 103,040	\$ 77,700	\$ 114,240

Note: Use the average for wells 7 and 8 to extrapolate for the others. Use \$140/af.

Table 8. Estimation of Average Power Savings for Each Phase of the Project

4.4 Complementing On-Farm Improvements

This project interfaces with on-farm improvements in that it better assures water availability to operate the sprinkler systems that have been installed on-farm. Under the existing system, where shrink losses have varied from 0-80 percent of the amounts pumped, irrigators are not assured of reliable water supplies and thus cannot fully optimize on-farm improvements. Piping water that traditionally has been subject to shrink losses removes the variability of supply and thus enhances the efficiency of on-farm improvements. The resulting impact on the farmers is demonstrated by their willingness to form the Arco Diversion Conveyance Lateral Pipeline Association, for which they will use their own funds, supplemented by this WaterSMART award, to provide an additional and more reliable water supply.

4.5 Department of the Interior and Bureau of Reclamation Priorities

This project is well aligned with Department of the Interior Priority 1(d) – Review Department water storage, transportation and distribution systems to identify opportunities to resolve conflicts and expand capacity. By piping water that historically has undergone various amounts of delivery shrink, the capacity of the water systems is significantly improved and extended, thus optimizing use of the resource.

In addition, this project addresses Reclamation priority 1 – Increase water supplies, storage and reliability under WIIN and other authorities (such as WaterSMART). By enhancing the reliability and usability of the existing water supply this project advances this first priority of the agency in a cost-effective manner where most of the cost is borne by water users.

4.6 Implementation and Results

4.6.1 Project Planning

This project constitutes the plan of the Arco Diversion Conveyance Lateral Pipeline Association. By establishing a three phased plan to extensively pipe the flows pumped from their wells, the association members have addressed a chronic water shortfall in a pro-active manner.

4.6.2 Performance Measures

Performance of this project will be directly measured by the Big Lost River Irrigation District, which is tasked with the responsibility to measure and account for shrink within the Big Lost River delivery system. Piping the flows will eliminate the shrink losses and thus will provide an ongoing way to measure the results of this effort.

4.6.3 Readiness to Proceed

Table 9 presents the project tasks and anticipated order of initiation and completion.

Task No.	Task	Schedule	Funded By
1	Secure funding and initiate project.	Aug 20 - Dec 20	ADCLPA
2	Conduct environmental assessment.	Jan 21 - Sep 21	ADCLPA, BoR
3	Secure rights of way.	Jan 21 - May 21	ADCLPA, BoR
4	Survey project.	May 21 - Jul 21	ADCLPA, BoR
5	Engineer the pipeline construction.	May 21 - Jul 21	ADCLPA, BoR
6	Prepare construction contracts and order materials.	Aug 21 - Sep 21	ADCLPA, BoR
7	Construct pipelines.	Oct 21 - Nov 21	ADCLPA, BoR
8	Complete project reporting and evaluation.	Nov 21 - Dec 21	ADCLPA

Table 9. Major Tasks, Milestones and Dates

Additional permits are not anticipated to be required, since in this first phase of pipeline construction the paths go through existing farm ground and along highway easements.

While the pipelines have undergone preliminary engineering design, final surveying and engineering design will be required, as indicated in Table 9.

No new policies or administrative actions are needed to build this project.

4.7 Nexus to Reclamation Project Activities

This project is wholly located within the Eastern Snake Plain Aquifer, the site of significant Reclamation projects and operations.

4.8 Additional Non-Federal Funding

The ratio between non-federal funding and federal funding is as follows: $\$935,506.60/\$500,000 = 1.87$.

5.0 Project Budget

5.1 Funding Plan

Funding for this project is proposed to be a combination of funding from the Bureau of Reclamation and the members of the Arco Diversion Conveyance Lateral Pipeline Association. The high value of this project is demonstrated by the ratio of private to public funding, in this case 1.87. The Association intends to obtain a loan for its portion of the funding, backed by its members.

5.2 Budget Proposal

See the following tables for identification of the parts to be paid by the parties. Letters of funding support are not required for this project because all costs except for the Reclamation contribution are planned to be paid by Association members.

Budget for Phase 1 of the Arco Conveyance Project	
Cost Classification	Cost
Administrative and Legal Expenses	\$ 80,000.00
Rights of Way	\$ 50,000.00
Engineering Fees	\$ 20,000.00
Project Inspection Fees	\$ 5,000.00
Construction	\$ 1,150,006.00
Subtotal	\$ 1,305,006.00
Contingencies	\$ 130,500.60
TOTAL COSTS	\$ 1,435,506.60

Table 10. Total Project Cost Table

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
Arco Diversion Conveyance Lateral Pipeline Association	\$ 935,506.60
Non-Federal Subtotal	\$ 935,506.60
Other Federal Entities	None
REQUESTED RECLAMATION FUNDING	\$ 500,000.00

Table 11. Summary of Non-Federal and Federal Funding Sources

5.3 Budget Narrative

The BOR funding will be used to assist in payment for a variety of tasks as described in Table 9. As all remaining funds will come from the Association members, funding for this project is straight forward.

6.0 Environmental and Cultural Resources Compliance

It is anticipated that environmental and cultural clearances will be obtained through a categorical exclusion approved by the Bureau of Reclamation. The entire pipeline project will be conducted on farmed land. Long stretches of the pipelines are planned to be installed along the highway easement which results in simplified environmental assessments. Cultural resources are not anticipated to be impacted in any way, although both cultural and environmental assessments will be made.

7.0 Required Permits or Approvals

Additional permits are not anticipated to be required, since this phase of pipelines goes through existing farm ground.

8.0 Unique Entity Identifier and System for Award Management

DUNS Number is 117659723. This is the organizational unique entity identifier. SAMS registration has been requested and is anticipated to be approved soon.

Appendices

Appendix A -- Federal Forms

- SF424
- SF-424C
- SF- 424D

Appendix B – Articles of Association of the Arco Diversion Conveyance Lateral Pipeline Association

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ARTICLES OF ASSOCIATION
of the
ARCO DIVERSION CONVEYANCE
LATERAL PIPELINE ASSOCIATION

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned, all citizens of the United States of America, of legal age, have this day formally and voluntarily associated ourselves together under the provisions of Chapter 13, Title 42, Idaho Code, for the purpose of formally organizing a lateral ditch water users' association. (A copy of Idaho Code §§ 42-1301 through 42-1313 is attached hereto and made a part hereof by reference).

1. The name of the association shall be **ARCO DIVERSION CONVEYANCE LATERAL PIPELINE ASSOCIATION** (referred to below as the "Association"), which consists of water users that divert ground water and currently utilize portions of the Big Lost River Irrigation District ("BLRID") delivery system and intend to consolidate their ground water diversions in order to convey such ground water through a joint non-BLRID pipeline conveyance system (the "Pipeline").
2. This Association is not formed for profit but as a nonprofit, mutual association.
3. The nature of the business and the objects and purposes for which this association is formed are to exercise all the powers, functions and duties authorized by Chapter 13, Title 42, Idaho Code, all laws amendatory thereto, and all other rights, powers and duties authorized by the laws of the State of Idaho.
4. The existence of this Association shall be perpetual unless otherwise disorganized pursuant to law.
5. The place where the principal business of this Association is to be transacted shall be at Arco, Idaho, with the specific address of the Association to be determined from time to time, as determined by the members of said Association.
6. The legal description of the lands within the system to be irrigated by this Association, approximately 4,471.8 acres, are associated with the water rights listed on the attached **Exhibit 1** spreadsheet list.
7. The names of the parties, together with their addresses and the descriptions of their acreage and properties which will be irrigated from the system and the amount of ground water that each member will be entitled to deliver through the Pipeline, along with the associated water rights that yields such ground water, is listed on the attached **Exhibit 1** spreadsheet list.

8. The members of the Association, also referred to as the “water user” or “water users” of the Association, means each person or entity that is a member of the Association because they own or possess and control land that is entitled to receive ground water, pursuant to valid ground water rights, and currently utilize portions of the BLRID system. These persons or entities intend to consolidate their diverted ground water to convey such ground water through the Pipeline.
9. This Association was formed to perfect an organization, with the power to borrow money, assess for the repayment of all funds borrowed, to pay all costs of installation and maintenance, and any and all other charges, and to make contracts as to the manner and means of taking the water represented by said individual water rights described in Article 1 above, and delivering the same to the lands of the members of this Association.
10. The costs of operating the Association delivery system shall be divided among the members of the Association on the basis of the number of votes they hold, whether their water is used or not, and each member shall be entitled to vote the number of votes listed on the attached **Exhibit 1** spreadsheet list.
11. Failure to use said system, or any part thereof, by any of the members of the Association, because they have obtained water by some other means, or for any reason, shall not excuse that member or members from fulfilling all financial obligations of the Association, and may be collected pursuant to the said provisions of Chapter 13, Title 42, Idaho Code, and the provisions of these Articles of Association. No member or members may transfer membership, his or her or its interest, or any part thereof in the Association, to any person or entity, other than the person or entity that may acquire land within the property described in the water rights described on **Exhibit 1**.
12. Notwithstanding the above Article 11, a water user may withdraw from the Association by providing written notice and proof that the water user’s land is no longer entitled to receive water from the Pipeline. Withdrawal shall not affect any lien recorded against the water user’s land pursuant to Idaho Code § 42-1311 prior to withdrawal.
13. If additional lands become a part of the system of the Association, and the addition of such lands is approved, then the Board of Directors shall so specify in the minutes of their meetings and they shall amend this agreement to reflect the number of votes the owner of each new parcel of ground added to the system shall get. If existing lands of the Association, or portions thereof, are sold, then the records of the Association shall reflect such ownership changes, and the vote allocation to a new landowner who obtains a portion of existing lands of the Association shall be a proportionate number of votes based on the water rights purchased by said new landowner.
14. The Association is empowered to borrow money for the purpose of maintaining, constructing, or reconstructing the Pipeline, subject to a resolution of its Board of Directors duly adopted after notice of said intended action has been given to the members of the Association and the members given an opportunity to appear and be heard on said matter

before said board. It shall be the duty of the Association to annually assess the same to each member water user in the manner provided by Chapter 13, Title 42, Idaho Code. Such assessment shall be made against the lands owned by each member water user.

15. As provided in Idaho Code § 42-1305, no irrigation water will be delivered to users who are delinquent in payment of their assessments until such assessment is paid, unless determined otherwise by the Board of Directors.
16. The number of votes for each water user shall be based upon a ratio of one vote per miner's inch (.02 cfs), or fraction of a miner's inch, under each water users' entitlement, as described in Idaho Code § 42-1301. The initial number of votes held by each water user is listed on the attached **Exhibit 1** spreadsheet.
17. The following people shall serve as the Board of Directors and as officers of the Association until the first annual meeting of the Association, which shall be held sometime between the first day of January and the last Monday in March of each year, the time and place of which shall be designated by the Secretary in the notice given of said meeting:

Michael Telford	President
Craig Parkinson	Vice-President
Mark Telford	Treasurer

18. Jay Jensen shall serve as the initial Lateral Ditch Manager until the first annual meeting of the members. He/she shall be entitled to his/her actual expenses which are approved by the Board of Directors.
19. To assist the Lateral Ditch Manager of the system, every Association member shall have measuring devices and other necessary infrastructure acceptable to the Lateral Ditch Manager.
20. The Association may adopt rules and regulations for the management of the lateral ditches and pipelines, and the delivery of water therefrom, as it deems best, to ensure an equitable distribution of the water, not inconsistent with all applicable laws.

IN WITNESS WHEREOF, the members of this Association who support the formal organization of the Association have hereunto signed as of the date indicated next to each member's signature.

Date: 8/25/20

Sign: Standlee Family LTD By Jason Stanger

Print/Title: Jason Stanger

Date: 8-25-20

Sign: Mark Telford

Print/Title: Mark Telford

Date: 8-25-20

Sign: Marc Hansen Sunset Farm + R

Print/Title: Marc Hansen

Date: 8-25-20

Sign: Jay J. Jensen for Jensen Family Co

Print/Title: _____

Date: 8-25-20

Sign: Telford Lands LLC. By Mike Telford

Print: Mike TELFORD

Date: 8-25-20

Sign: Aaron & Doreen Telford By Mike Telford

Print: MIKE TELFORD

Date: 8-25-20

Sign: LOST RIVER FARMS by Mike Telford

Print: MIKE TELFORD

Date: 8/25/20

Sign: Parkinson Farms Craig Parkinson

Print: Craig Parkinson

Date: _____

Sign: _____

Print: _____



Privately Decreed Water Right(s) Holder	Water Right Nos.	Diversion WMIS Number	Water Right Diversion Rate	% of Total Water Rights	LDWUA Votes (1 per .02 cfs)
PARKINSON FARMS	34-7176 & 34-12368	187	7.8	13.50%	390.0
MARK AND PAIGE TELFORD	34-4132, 34-10058, & 34-13569	33	3.67	6.35%	183.5
SUNSET FARM & RANCH LLC	34-14772, 34-2277, & 34-2480B	32	6.86	11.87%	343.0
STANDLEE HAY COMPANY	34-7028A, 34-7234, & 34-2480A (6.6 cfs)	188 (Toone Well)	12.76	22.09%	638.0
	34-2509 & 34-7226B (6.16 cfs)	78 (West Lower Well) 80 (East Lower Well)			
TELFORD LANDS LLC	34-7037, 34-2401A, and 34-4015	31 (South Island Well) 186 (North Island Well)	17.34	30.02%	867.0
AARON AND DESAREE TELFORD	34-7100	33	2.72	4.71%	136.0
JAY AND DEANN JENSEN	34-2357B	166	2	3.46%	100.0
LOST RIVER FARMS	34-7205	34	4.62	8.00%	231.0
TOTALS	N/A		57.77	100.00%	2888.50

Resolution of the Board of Directors

Arco Diversion Conveyance Lateral Pipeline Association

Whereas, The Arco Diversion Conveyance Lateral Pipeline Association (ADCLPA) is organized and exists under the laws of the State of Idaho for the purposes of distributing water for the benefit of the patrons of the Association, and;

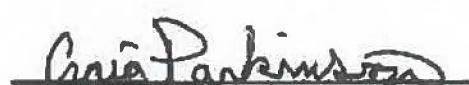
Whereas, the water delivered by the Association is assessed for the water distribution services of the Association, and;

Whereas, the members of the board of directors of the Association are interested in the benefits the proposed conveyance project can provide to the members of the Association.

Now Be It Resolved, by the ADCLPA board of directors that the board has by resolution signed this 1 day of September, 2020, agreed to be a participant in and the applicant for **Funding Opportunity BOR-DO-21-F001.**

Signed and included as a minute entry in the actions of the ADCLPA Board.


Michael Telford


Craig Parkinson


Mark Telford

Big Lost River Irrigation District

101 S. Main Street, P.O. Box 205, Mackay ID 83251 (208) 588-2231 www.blrid.com

September 10, 2020

Mike,

The abbreviated reach is a calculation used to calculate shrink on well water that is injected into the Island and Eastside canals and conveyed to the Arco and Munsey Canals. The Shrink from 2016 through 2019 ran from 0% during high water up to approximately 50% towards the end of dryer years. If I had to estimate the average shrink, I would say it usually is around 20%.

If you have anymore questions or would like more clarification feel free to contact me.

Thanks

Lucas Yockey
General Manager



Lost River Electric Cooperative, Inc.

September 10, 2020

To Whom It May Concern:

Lost River Electric Cooperative, Inc. (LREC) supports our members in their pursuit of energy efficiency projects and goals. The Arco Diversion Pipeline project, as presented, would serve to provide greater energy efficiencies to our members who are involved in the project and to our cooperative as a whole. By reducing energy consumption, finite energy supply resources are conserved and demand on the transmission system is reduced. This is of special importance regionally during summer irrigation season — when our system load and demand reach peak levels. To the extent that the Arco Diversion Pipeline project assists our cooperative and individual member participants in this regard, LREC management recommends the project for financial and promotional support from interested individuals and organizations.

Sincerely,

Brad J. Gamett

General Manager
Lost River Electric Cooperative, Inc.

Appendix D
Page D-2



Lost River Electric Cooperative, Inc.

September 9, 2020

To Whom It May Concern,

Here is the information that was requested by Michael Telford on Co-op numbers #402 and #583. This is both the dollars spent in energy usage and the yearly horsepower charge. I have included the years 2018, 2019, and year to date for 2020.

Co-op #402

2018 ---- \$15,216.11

2019 ---- \$13,447.08

2020 YTD ---- \$21,037.60

Co-op #583

2018 ---- \$10,348.64

2019 ---- \$10,705.36

2020 YTD ---- \$17,025.20

Let me know if there is anything else I can do for you.

Sincerely,

Trisha Carlson, Irrigation

WMIS

Water Management Information System

Quick Search:

[For assistance, email WMIS Info](#)

[Login](#)

Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 32 ▼
 Legal Description: 04N 26E 3 SE SE NW ▼
 Metal Tag Number: A0006780 ▼

SUNSET FARM & RANCHIA LLC (QUIST WELL)

[Point Of Diversion](#)
[PCC](#)
[Flow Meter](#)
[Time Clock](#)
[Alternate](#)
[Contacts](#)
[Data Summary](#)
[Other](#)
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Data Summary

You are viewing 32: A0006780

Report Year	Alternate	FM	PCC	Time Clock
2019		55.16		
2018		0.00		
2017		0.00		
2016		0.00		
2015		537.53		
2014		642.53		
2013			494.43	
2012			0.00	
2011			0.00	
2010			0.00	
2009		0.00	0.00	
2008			580.00	
2007		346.00	547.17	
2006			0.00	
2005			513.00	
2004			658.00	
2003				
2002				
2001				
2000			1450.00	

#3

WMIS

Water Management Information System

Quick Search:

[For assistance, email WMIS info](#)

[Login](#)

Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 34 ▼
 Legal Description: 04N 26E 3 SW SW SE ▼
 Metal Tag Number: A0013494 ▼

LOST RIVER FARMS

Point Of Diversion PCC Flow Meter Time Clock Alternate Contacts Data Summary Other Logout

Data Summary

You are viewing 34: A0013494

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019		0.00		
2018		105.54		
2017		286.51		
2016		798.49		
2015		856.52		
2014		481.38		
2013	473.8			
2012			31.64	
2011			0.00	
2010			134.00	
2009			161.00	
2008				
2007			0.00	
2006			0.00	
2005			57.00	
2004			0.00	
2003			195.00	
2002			229.00	
2001			0.00	
2000			204.00	

WMIS

Water Management Information System

Quick Search:

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Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 188 ▼
 Legal Description: 05N 26E 34 NE SE SW ▼
 Metal Tag Number: A0008143 ▼

STANLEE HAY COMPANY
 (TOO NEAR WELL)

[Point Of Diversion](#) [PCC](#) [Flow Meter](#) [Time Clock](#) [Alternate](#) [Contacts](#) [Data Summary](#) [Other](#) [Logout](#)

Data Summary

You are viewing 188; A0008143

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019		540.69		
2018		682.93		
2017		421.49		
2016		0.03		
2015		379.40		
2014		1099.94		
2013	848.9			
2012				
2011	1143.0			
2010	140.0			
2009		450.00		
2008		1264.19		
2007		1482.89	2437.51	
2006		49.90		
2005		768.50		
2004		1146.70		
2003		848.63		
2002		1565.20		
2001		1657.01		
2000		659.50		

4

WMIS

Water Management Information System

Quick Search:

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Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 80 ▼
 Legal Description: 04N 26E 23 SE SW SE ▼
 Metal Tag Number: A0004904 ▼

STANDLER HAY COMPANY
 East Will

Point Of Diversion PCC Flow Meter Time Clock Alternate Contacts Data Summary Other Logout

Data Summary

You are viewing 80; A0004904

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019		6.49		
2018		0.00		
2017		0.00		
2016		0.00		
2015		40.82		
2014		246.21		
2013	266.9			
2012				
2011	48.0			
2010	214.0			
2009				
2008				
2007			0.00	
2006			0.00	
2005			0.00	
2004			0.00	
2003			0.00	
2002			0.00	
2001			0.00	
2000			0.00	
1994				

WMIS

Water Management Information System

Quick Search:

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[Login](#)

Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 187 ▼
 Legal Description: 05N 26E 34 NE SW SW ▼
 Metal Tag Number: A0007515 ▼

PARKINSON FARMS

Point Of Diversion PCC Flow Meter Time Clock Alternate Contacts Data Summary Other Logout

Data Summary

You are viewing 187: A0007515

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019		712.51		
2018		1013.66		
2017		613.35		
2016		1320.49		
2015		1582.14		
2014		1805.19		
2013	2138.2			
2012				
2011	911.0		613.00	
2010			1345.00	
2009				
2008			2184.00	
2007		1212.00	1320.68	
2006			478.24	
2005			555.60	
2004			713.00	
2003			1161.75	
2002			2236.70	
2001			1925.30	
2000			1458.54	

6

WMIS

Water Management Information System

Quick Search:

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Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 33 ▼
 Legal Description: 04N 26E 3 NW SW SE ▼
 Metal Tag Number: A0013495 ▼

MARK : PAIGE TELFORD
 AARON : DESARRE TELFORD

Point Of Diversion PCC Flow Meter Time Clock Alternate Contacts Data Summary Other Logout

Data Summary

You are viewing 33; A0013495

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019		121.22		
2018		420.67		
2017		0.00		
2016		613.83		
2015		1186.09		
2014		1570.37		
2013	732.2			
2012				
2011	216.0			
2010	440.0			
2009			280.00	
2008			1731.14	
2007		1372.00	1429.06	
2006			464.45	
2005			516.50	
2004		625.00	1529.70	
2003			1572.92	
2002			1884.50	
2001			1908.60	
2000			1682.82	

WMIS

Water Management Information System

Quick Search:

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Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 186 ▼
 Legal Description: 05N 26E 34 SE NW SW ▼
 Metal Tag Number: A0007516 ▼

TELFORD LANAS
NORTH ISLAND WELL

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Data Summary

You are viewing 186; A0007516

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019				920.04
2018				1078.89
2017				85.57
2016				1408.21
2015				1254.01
2014				1099.45
2013	3290.8			
2012				
2011	911.0			
2010	1337.0			
2009				
2008				
2007			2655.14	
2006			837.00	
2005			1571.00	
2004			2260.00	
2003			2169.00	
2002			2251.00	
2001			2365.00	
2000			2738.00	

WMIS

Water Management Information System

Quick Search:

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Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 31 ▼
 Legal Description: 04N 26E 3 NE SE NW ▼
 Metal Tag Number: A0000484 ▼

TELFORD LANAS
SOUTH ISLAND WELL

Point Of Diversion PCC Flow Meter Time Clock Alternate Contacts Data Summary Other Logout

Data Summary

You are viewing 31; A0000484

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019				499.04
2018				467.99
2017				692.68
2016				1539.13
2015				1312.85
2014				2051.45
2013				
2012				
2011				
2010				
2009				
2008				
2007			803.00	
2006			363.00	
2005			415.00	
2004			676.00	
2003			1796.00	
2002			2209.00	
2001			2216.00	
2000			2467.00	

#9

WMIS

Water Management Information System

Quick Search:

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[Login](#)

Search Method: Reporting District ▼
 Reporting District: Water District 34 ▼
 WMIS Number: 166 ▼
 Legal Description: 05N 26E 27 00 SW SW ▼
 Metal Tag Number: A0013496 ▼

JAY & DEANN JENSEN WELL

[Point Of Diversion](#)
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[Time Clock](#)
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[Contacts](#)
[Data Summary](#)
[Other](#)
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Data Summary

You are viewing 166; A0013496

Report Year	Alternate	FM	PCC	Time Clock
2020				
2019		86.87		
2018		0.00		
2017		0.00		
2016		901.90		
2015		420.01		
2014		1762.82		
2013	1747.9			
2012				
2011	195.0			
2010	747.0			
2009			366.00	
2008			1678.42	
2007		2416.00	2424.39	
2006			758.85	
2005			832.40	
2004			1943.30	
2003			1419.46	
2002			1417.88	
2001			971.70	
2000			869.10	
1998			0.00	
1997			0.00	
1996				
1995				

Appendix E
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