#### FIRST LEVEL SCREENING - WEEG 2015

AP	PLICANT NAME:	<del>1</del>		CONTROL NUMBER:						
	North side fun pine Go	01								
AP	PLICANT LOCATION:	TASK AREA:								
	921 North Lincoln street,									
PR	OJECT NAME:	/		BOR \$: 600,000						
	Pumping Station 4 class	allthe abrefunt	Cost Share S: 697 073							
	SCREENING FACTOR	COI	COMMENTS							
1	Eliaibility requirements									
	Eligible applicant in a Reclamation state	YES NO		<u></u>						
	• 50% or more non-Federal cost share	YES NO	· · · · · · · · · · · · · · · · · · ·							
	Authorized funding amount (\$1 Million	YES NO								
	total – no more than \$500,000 a year)	<u> </u>								
<u> </u>	Funding Group I or II									
	• Length of project $(9/30/17 + 5C) + 6(9/30/17 + 5C)$	YESNO								
	(7/30/17 - FG F0F 7/30/18 - FG II)			<u></u>						
2	Proper format and length (75 pages)	YES NO								
-										
3	Proposal content									
ĻŤ	• SE-424 (authorized signature)	VES NO								
<b> </b>	• SF-424B or SF-424D (authorized signature)	YES NO		· · · · · · · · · · · · · · · · · · ·						
┣		VYES NO	····· ···· ···· ···· ···· ··· ··· ···	·						
┢──	Table of contents	YES NO								
	TECHNICAL PROPOSAL/EVALUATION			······································						
	Executive summary	VYES NO								
<u>ا</u>	Backaround data	VYES NO								
-	Technical Project description	YES NO		<u> </u>						
	Evaluation Criteria	VYES NO	<u> </u>	······································						
	Project Benefits/Performance Measures	VYES NO		<u> </u>						
	Potential Environmental Impact Desc.	YES NO								
	Required Permits/Approvals, if applicable	YES NO	<u> </u>	<u> </u>						
	Letters of Project Support	VYES NO								
	Official Resolution (Required 30 Days After)	YES NO	<u> </u>							
-	PRO JECT BUDGET									
┣	Funding Plan	YES NO	<u>.                                    </u>	· <u>····································</u>						
┣──	Letters of Funding Commitment	YES NO	······································							
	Budget Proposal			<u> </u>						
╟──	Budget Narrative			<u> </u>						

VES\_

Date

NO

1<sup>st</sup> Level Screening Comments (Screening Committee Member):

Summary Comments (Grants Officer):

• SF-424A or SF-424C

Applicant is eligible for consideration during the Second Level Evaluation phase

No Yes

Grant's Officer

December 3, 2014

Bureau of Reclamation Financial Assistance Management Branch Attn: Mr. Shaun Wilken Mail Code: 84-27852 P.O. Box 25007 Denver, CO 80225

Dear Shaun:

Enclosed is the WaterSMART: Water and Energy Efficiency Grant Application from North Side Pumping Company, Jerome, Idaho, for your consideration in Category II of the Funding Opportunity Announcement No. R15AS00002.

Thank you for your consideration.

Sincerely,

for bopon

Joe Cooper, Manager

Enclosure

### North Side Pumping Company 921 North Lincoln Jerome, Idaho 83338

Phone – (208) 324-2310 ~ Fax – (208) 324-8906 E-mail – nscchaz@outlook.com

WaterSMART – Water and Energy Efficiency Grants FY 2015 Funding Opportunity Announcement No. R15AS00002

# Pumping Plant 4 Closure & Pump Ditch Abandonment Project

A Project To Greatly Improve Water Management and Conservation and Significantly Reduce Energy Use By:

- Converting Communal Pump Ditch Supply to Lateral Canal Supply;
- Eliminating Water Supply Pumping From Pumping Plant 4;
- Elimination of 20.5 Miles of Open Pump Ditches

North Side Pumping Company Jerome, Jerome County, Idaho Joe Cooper, Manager

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#### **Technical Proposal and Evaluation Criteria**

#### **Executive Summary**

15 December 2014, North Side Pumping Company, Jerome, Jerome County, Idaho.

The proposed project is the fulfillment of a comprehensive water and energy conservation and modernization plan formulated by North Side Pumping Company (NSPC), a state of Idaho non-profit company created in 1915 with water delivery authority to 12,000 acres of farmlands in Jerome County, Idaho. The project plan involves a 53.75%-46.25% mixture of local and Federal dollars for a two-year program on 1,937 acres of the NSPC supported acreage with the goal to entirely eliminate 20.5 miles of open-ditch water delivery systems and completely close an outdated, deteriorating, century-old pumping plant by converting ditch community supply points to individual water tap points on an existing lateral canal. The end result will be an annual savings of approximately 9,100 acre feet of irrigation water and an overall reduction of approximately 522,000 kilowatt-hours (kWh) of electrical power currently required to operate the present system during the irrigation season.

This project has been formulated in detail over the last five years with maximum effort being expended on how to conserve water and reduce electrical demand.

The entire project will be completed within two years. Work will commence October 2015 and be completed by October 2017. Note that work generally can only take place when canals are empty of water, which restricts construction to October through April.

This grant application will be a cooperative funding process whereby the total project cost of \$1,297,073, of which \$697,073 will be provided by the applicant combined with \$600,000 in WaterSMART grant funds from the Bureau of Reclamation (BoR). This translates to a funding mix of 46.25% Federal dollars and 53.75% matching local dollars.

Local funding will come from the 19 water users who are shareholders in the NSPC and from a private canal company. The Federal funds will be used to pay for materials and equipment required to develop individual delivery point user system connections including pipe panels and pumps, wiring and a variety of steel pipe parts. Local funds will be used to pay for elements such as connecting individual irrigation systems to the new lateral canal delivery and measurement points, installation of supply lines to water use points, possible conversion of flood/furrow irrigation to sprinkler irrigation, pumping plant closure activities and in-fill of abandoned pump ditches.

A specific series of actions over a 24-month time frame of the project will be required to complete the transition from pump ditch to lateral canal. The time frame is constricted by the fact that work must be done when the canals are empty and individual water users are outside of the growing season. This restricts project work period to October 15 through April 1 of each year.

The project area is not located on a Federal facility; however, a very minor portion of one pump ditch does transit small segments of contingent Bureau of Land Management and private lands. Signed easement agreements have been secured for any of those areas where construction activities will take place.

#### **Background Data**

The project area (see illustration) is located in the south central geographical region of Idaho, known locally as the Magic Valley.

Specifically the North Side Pumping Company operates in an agricultural area of Jerome County east of the town of Jerome, Idaho, which is the county seat.



The area is a major component of Idaho's agricultural economy. It is an area of limited natural precipitation and is therefore very dependent on irrigation water diverted from the Snake River and delivered via an extensive system of canals.

The following page provides a broad satellite view of the region with the general project location highlighted to show its location relative to landmarks in the area.

NSPC holds total agricultural irrigation water rights of 142.32 cubic feet per second (cfs), or 42,342 acre feet of Snake River water.

Of that, 36.12 cfs (10.746 acre feet) is dedicated solely to irrigation deliveries to 19 users in the project area

Annual total water use for the entire NSPC is approximately 40,000 acre feet. The annual average use for the project area by itself is its full water right allocation of 10,746 acre feet.

#### **General Project Location**

The project area is located in Jerome County north of the Snake River and east of the county seat of the City of Jerome. Pumping Plant 4 is indicated by the red placemark at the eastern boundary of the project area. The project area itself is roughly oval in shape and is approximately 5 miles by 5.5 miles in diameter.









Irrigation water is delivered to Pumping Plant 4 by a North Side Canal Company lateral canal. Pumping Plant 4 then pumps the irrigation water 50 feet in elevation via a 50-inch, 755-feet delivery pipeline to a headgate where it supplies the head of Pump Ditches 04 and 05.

Pump Ditch 04 supplies gravity flow water to seven delivery points on the north side of the project area.

Pump Ditch 05 supplies gravity flow water to 12 delivery points on the south side of the project area.

The two pump ditches each traverse a total of 10.25 miles, 20.5 miles in total, until emptying back into a lateral canal.



Pumping Plant 4 (above) is 102 years old and is at the end of its operating life. Water from the plant is pumped via a delivery pipeline to a headgate (below left) that serves two pump ditches, one of which is pictured (below right). Both pump ditches will be abandoned and Pumping Plant 4 decommissioned and closed in the project.



North Side Pumping Company was founded in 1915 to serve a total of 12,000 acres of agricultural land using five pumping plants and a variety of pump ditches. It has worked with the Bureau of Reclamation on one previous project, installation in 1991 of a water measurement flow meter.

Specifically, the project involves 1,937 acres of agricultural lands irrigated by natural flow and storage water from Bureau of Reclamation storage projects on the Snake River diverted and delivered to the project area via a canal owned by North Side Canal Company under a 1931 agreement.

A total of 19 individual landowners are included in the project, all of whom use water from the two pump ditches solely for agricultural irrigation of crops including corn, grain, sugar beets, alfalfa, etc. Irrigation water is delivered for approximately 150 days during the irrigation season.

Irrigation is primarily by sprinklers including center pivots, wheel and hand lines. There are a few surface irrigation systems of gated pipe used in odd-shaped fields. One water user currently uses surface irrigation but has indicated that when the project is finished he will evaluate the benefits of converting to a pressurized sprinkler system.

Pumping Plant 4 itself was constructed in 1912 and utilizes electricity supplied by Idaho Power Corporation. According to power use records maintained by NSPC, the average annual consumption of electricity by Pumping Plant 4 over the last six years has been 1,216,816 kilowatt hours.

The pumping plant is at the end of its operating life and will require costly major physical, electrical and mechanical renovation and upgrading if it is to be used in the future.

The pumping plant is equipped with four 175-horsepower pumps and one 40-horsepower pump which collectively total 740 horsepower. One pump now requires immediate replacement while the others were installed in 1912 and are badly outdated and inefficient. Additionally, major upgrades are required to the 50-inch pipeline that supplies the two ditches.

#### **Technical Project Description**

The overall technical concept of the project is to achieve significant annual reductions in water and energy consumption by eliminating an inefficient and wasteful communal supply system and converting to a closely managed, individual supply point system.

This will be achieved by completely decommissioning Pumping Plant 4 and abandoning the two pump ditches served by the plant.

This goal is to be achieved by first constructing new water delivery headgates on two separate existing lateral canals, owned and operated by North Side Canal Company. One of the canals is situated on



One of the likely points along a lateral canal where a new water delivery headgate and regulator pond would be constructed.

the northern half, the other on the southern half of the project area.

As the new connections are completed, the 19 water users currently supplied by the pump ditches will then begin to abandon their pump ditch connection points and connect to the new lateral canal water delivery points. The new individual headgate delivery points will include water measurement devices and be managed by a qualified ditchrider to ensure water quantity delivery management is maximized.

The new connects will be created with focus on employing the latest in high efficiency water delivery processes and equipment including variable frequency drive pumps where possible.

Completion of the project will require 24 months and involves switching all 19 existing water users from a communal pump ditch water supply to individual, measured headgate diversions on adjacent lateral canals operated by North Side Canal Company. When that is complete, Pumping Plant 4 will be closed down and pump ditches 04 and 05 will be abandoned and in-filled.

Given the work period restrictions of empty canals, the project will be done in phases as follows:

- From October 2015 to April 2016, the North Side Canal Company will construct 15 new regulator ponds and install 16 new headgates on lateral canals located on the northern and southern sides of the project area. This will consist of seven water users on the northern half (pump ditch 04) and 12 water users on the southern half (pump ditch 05). The new ponds and headgates will be sited to provide the closest connection point for each user's irrigation system. Each headgate will be equipped with precision water measurement devices.
- From October 2015 to April 2017, all 19 water users will eventually connect to the new delivery points. This will involve extensive electrical system development, water delivery pipe of varying length installation, installation of electrical panels and wiring and installing new or upgraded new pumps including use of variable frequency drive pumps wherever possible.
- From April 2017 to October 2017, Pumping Plant 4 will be full decommissioned and abandoned including removing all electrical components including pumps, shutdown system and closure plumbing completion; physical securing and secure closure of the pumping building itself; and infill of the 20 miles of abandoned pump ditches.

The installation of all electrical, mechanical and physical equipment, piping, fittings, etc., to complete the connection of individual water users to the new lateral canal tap points will be done by certified, licensed irrigation equipment companies selected by competitive bidding conducted by the individual landowners.

When all water users have been connected to the new lateral canal distribution work will begin to abandon the two pump ditches and close the pumping plant.

Closure of Pumping Plant 4 will require considerable electrical and mechanical work to remove the abandoned pumps, secure all plumbing connections, detach and remove all electrical panels and conduits in the building housing the pumps and then physically securing the building itself.

Abandonment of the 20.5 miles of pump ditches will initially require removal of all original ditch headgates and tail end spill pumps plus check dams and other ditch elements. This will be done by North Side Canal Company as part of their local funding contribution agreement. As

segments of the ditches are cleared, land owners will begin individually to in-fill the abandoned segment of ditch on their property.

All work being done on the project will be under the continual supervision and review of the project manager, who is also the NSPC manager, and ultimately by the NSPC Board of Directors.

#### **Evaluation Criteria**

#### A. Water Conservation

<u>A.1: Quantifiable Water Savings:</u> There will be a significant amount of water conserved annually as a result of the project.

NSPC holds total water rights of 142.32 cubic feet per second (cfs), or 42,342 acre feet of Snake River water. Of that, 36.12 cfs (10.746 acre feet) is dedicated solely to Pumping Plant 4 for pump ditches 04 and 05. Annual total water use for the entire NSPC is approximately 42,300 acre feet. The annual average use for the Pumping Plant 4 system by itself is its full water right allocation of 10,746 acre feet.

Currently, NSPC uses 20.5 miles of open pump ditches, supplied with water by Pumping Plant 4, to deliver water to the 19 users. The result is a very significant water transmission loss due to seepage, evaporation and end spill.

This water transmission situation has produced irrigation season shortfalls in water that make it impossible for the pumping company to meet the individual water rights held by users on the two ditches. That, in turn, has forced NSPC to significantly surcharge pumping during the irrigation season to meet minimum demands.

The open ditch and tail end spill losses result in a quantified, measured total annual loss of approximately 9,155 acre feet of critical Snake River diverted irrigation water in an enormously important agricultural area frequently plagued by water supply shortages.

Measured water calculations in 2013, conducted by the NSPC manager at the pumping plant water delivery starting point and ditch end, reveal the following:

- Pump Ditch 04 requires that 28 cfs of water be pumped to deliver 10.3 cfs to the water users and ensure transmission to the ditch end, resulting in a total annual water loss of 17.7 cfs for the 150 day irrigation season. That calculates to an annual water loss of 5,248 acre feet;
- Pump Ditch 05 requires that 28.6 cfs be pumped to deliver 15.4 cfs to the water users and to ensure transmission to the ditch end, resulting in a total annual water loss of 13.2 cfs for the 150 day irrigation season. That translates to an annual total water loss of 3,907 acre feet.

Combined, the water losses from the two ditches amount to 9,155 acre feet of water.

Put another way, NSPC must pump 56.6 cfs of water into the two ditches to be able to actually deliver 25.7 cfs to water users. Viewed in this light, the ditch loss and delivery inefficiency typically amounts to a 34% loss of water and frequently runs as high as 54% depending on the time of year and weather conditions.

Equally significant, the water loss due to the inefficiency of the pump ditch process has required that the pumping plant water supply be supplemented by an additional 20 cfs per day for the 150 day irrigation season from the North Side Canal Company water supply during the irrigation season to ensure NSPC can meet its delivery point requirements.

The 20 cfs supplied by the canal company amounts to 5,950 acre feet water of valuable Snake River irrigation water that is no longer available to the canal company to meet a variety of other delivery needs posed by other water users in the North Side Canal Company system.

That loss of water delivery flexibility is frequently problematic for the canal company given the fact that it provides water to more than 165,000 acres of agricultural land in an area already suffering from declining groundwater levels, increasingly frequent periods of sustained drought and an enormously contentious and highly litigated water management environment.

The conversion project will eliminate totally both the ditch loss suffered by NSPC and the necessary surcharge water supply provided by the canal company. Therefore, the water saved can remain in the North Side Canal Company delivery system including Bureau of Reclamation storage reservoirs on the Snake River system.

Viewed in total, that means an additional 9,155 acre feet of NSPC water and 5,950 acre feet of canal company water will become available to the two companies for a wide range of water supply management options for the two in the Magic Valley areas.

With the understanding that first priority use of the conserved water will be to ensure full deliveries within the entire NSPC system in times of shortage or as needed, the water saved thus provides a water management asset in a variety of ways:

- During periods of drought, the conserved water can be reallocated as needed by the pumping company to improve individual farm unit quotas and protect crop production within the NSPC area of operations;
- The conserved water potentially can be placed in the Idaho Water Bank where it becomes available for use by other entities such as irrigation districts, recharge projects, flow augmentation for endangered species recovery, etc.

Additionally, the switch to individual lateral canal headgates equipped with precise measuring devices, monitored, managed and controlled by a canal company ditchrider, is also expected to significantly reduce the chances of unintentional over delivery to individual users. That contrasts to the rather haphazard common supply user managed process that has been used for decades where water measurement consisted of flow rates in at the pumping plant and occasional flow rates out at the ditch ends. Just how much those savings might be cannot be determined until the pumping company has several years of water use data under the new system.

With users on the new individual measured delivery points, and the pumping plant closed, specific water savings figures will be easily verifiable because the precise use records maintained by the canal company can be compared with the general supply records from irrigation seasons under the open ditch system.

<u>Percentage of Total Supply</u>: It is important to put into context the overall value of the water that will be conserved by the abandoning of the 20.5 miles of open ditches. The annual water savings will be 9,150 acre feet. That is 21.6% of the NSPC's total annual water supply. That percentage does not factor in the additional nearly 6,000 acre feet that will be regained by the canal company and put to use elsewhere in its system.

While the annual water savings of this project is a modest percentage of the total water supply, it is not an understatement to say that this savings plays a far great role than the figures would suggest. It is a factual statement in both theory and practice that the management flexibility provided results in the ability to far better manage the entire yearly supply. When the conserved water is not needed by NSPC users, it can be potentially be utilized in various management combinations - i.e. stored, wheeled through to users down the line, equally allocated to supplement farm units, made available for rental through existing water banks, released to the entire basin system, or any and all, etc. Ultimately it represents a far more effective water management for the NSPC.

To fully understand the practical water conservation impact of this project, it should be noted that the current water loss of 9,155 acre feet from two pump ditches equals enough water to irrigate more than 2,000 acres of high value potatoes or to ensure an adequate supply of water to approximately 5,000 acres of agricultural lands. That capability is crucial in a geographical area where the average yearly total natural precipitation is only 10.5 inches a portion of which is snow

The water management and water supply sustainability benefits of the conserved water savings are enormous to all agricultural irrigation water users in the Magic Valley area. But beyond just irrigated agricultural, the saved water becomes potential available for other uses such as flow augmentation for endangered species, recreation, groundwater recharge, future Agribusiness development such as dairies, food production, general farming, etc. These are industries totally and completely dependent upon the availability of water and the flexibility to make water available when and where it is most needed whether within the NSPC area itself or possibly elsewhere in the region.

#### **B** - Energy-Water Nexus

The closure of Pumping Plant 4 will provide a considerable reduction in the yearly electrical power consumption of NSPC. The Idaho Power Company, the power provider, was asked to compare current electrical pumping demands of the project area with those that will exist after completion of the project. The calculations established that closure of Pumping Plant 4 will produce an effective overall reduction of approximately 522,000 kWh during the average irrigation season.

That figure was calculated by comparing the total pump horsepower required presently with the total pump horsepower that will be required to meet the lateral canal connection pumping requirements by water users from their new water delivery points.

Currently, the pumping plant uses five pumps totaling 740 hp to meet water demands: four 175-horsepower and one 40-horsepower. The pumps are the original ones installed in the plant when it was built more than a century ago.

The individual water users currently employ 17 different pumps ranging in size from 3 hp to 230 hp with a total demand of 843 hp. Therefore a total of 1,583 horsepower (843 hp + 740 hp) is required to meet water delivery demands.

Idaho Power Company reviewed the proposed project and determined that when the project is complete a total of 883 hp aggregate pumping capacity will be needed by water users. However, the current 740 hp pumping electrical demand of the pumping plant will be eliminated totally. Therefore, the effective overall electrical demand is reduced by 700 hp. Idaho Power Company calculated the 700 hp savings equates to an annual energy savings of approximately 522,000 kWh. That is 10.57% of NSPC's average total annual power consumption over the past five years.

It is also significant to note that individual water users have been forced under the current system to pay for power used to pump up to 30 CFS per day of "invisible water." That is water

they pay to pump but which cannot be used because it is lost in seepage and evaporation or becomes tail-end water going back into lateral canals.

An added bonus is the potential for substantial ancillary energy savings not part of the NSPC operation but which may result because of the project.

The project means the North Side Canal Company will regain the 20 cfs of water that it currently provides to support NSPC pumping surcharging on the two ditches. North Side Canal Company representative have indicated that the 20 cfs of conserved water provides the means to make possible a variety of water delivery conversion projects for its users elsewhere on its distribution canals; projects currently impossible due to insufficient amounts of water.

Consultation with other water users in the general area has shown great interest in the use of the regained 20 cfs of canal water for projects that could potentially yield considerable benefits in both the energy and water areas.

Specifically, the Hazelton Butte Irrigation Association examined the possibility of using the 20 cfs of saved water to facilitate new soft conversions that use canal water to replace groundwater pumped from deep wells. Deep well pumping in the area typically requires a water lift of approximately 400 feet. This contrasts with an approximately 50-feet pumping lift for water supplied from a lateral canal.

The Association has already employed the soft conversion process using water whenever it became available from the canal company system. A technical analysis performed by the local power provider, Idaho Power Company, determined the conversions already completed resulted in a cumulative average electrical savings for the Hazelton Butte Association of 1,153,196 kWh's per year. (See Idaho Power Company letter on the following page).

Hazelton Butte Irrigation Association representatives have stated that future soft conversions are currently not possible because additional water is not available from the fully committed canal supply. However, the 20 cfs saved via the NSPC project would potentially provide the water to make additional soft conversions possible for the Association and plan to pursue that objective. Obviously, NSPC cannot definitively claim that its project water savings will thus create similar electrical savings for the Hazelton Butte Association. But it is certain, without the conserved water, the opportunity to do so does not exist.

Also, of special significance in this instance is the related contribution to water supply sustainability. Groundwater levels in the Magic Valley area have been declining steadily for the past several decades due to agricultural pumping and increasing periods of drought.

The result has been harsh restrictions on any new groundwater development and extensive, prolonged legal battles over water rights and water availability and a continue search for ways to conserve groundwater. The ability to replace groundwater pumping withdrawals with canal water deliveries thus could help meet the critical need in the region to conserve groundwater.

The state of Idaho is a participant in the Idaho Eastern Snake Plain Aquifer Conservation Reserve Enhancement Program, a part of the Conservation Reserve Program operated by the Farm Service Agency. The goal of the program is to conserve up to 200,000 acre feet of water annually. The availability of conserved water to potentially be used for additional soft conversions, such as those of the Hazelton Butte Association irrigators, represents the grassroots type of effort that both demonstrate and produce beneficial results in that joint state-Federal effort.



November 11 2014

C/O Rocky Hagan Hazelton Butte Irrigation Association 3353 E 4050 N Twin Falls, Idaho 83301

Hazelton Butte south soft conversion energy savings

Dear Rocky:

As per your request, I have gathered information concerning the electrical savings achieved from irrigators associated with the Hazelton Butte south soft conversion projects. Idaho Power determined cumulative electrical savings to be an average 1,153,196 kWh's per year. These projects have been evaluated by ADM and Associates, a third party evaluator, as part of an Irrigation Efficiency Program evaluation and determined valid. A copy of the evaluation can be found in the 2013 Idaho Power DSM Annual Report, Supplement 2.

Thank you for your participation in Idaho Power's Irrigation Efficiency Rewards Program. I encourage you to contact me at 208-736-3215 with any further questions and welcome any new proposed irrigation projects you may be considering.

Daniel Moore Agricultural Representative Southern Region, Mini-Cassia

> P.O. Box 70 (83707) 1221 W. Idaho St. Boise, ID 83702

#### \C - Benefit to Endangered Species

Idaho irrigation water is purchased on a willing seller basis or rented via Idaho water banks by the Bureau of Reclamation to supply annually at least 429,000 acre feet of water to make possible the downstream flow augmentation that meets the needs of the increased flow strategy followed in endangered species recovery efforts.

It is a well-established fact that the Federal government annually has difficulty in securing sufficient water for recovery support. This project would open another productive water rental source in support of those efforts.

Under the willing seller-willing buyer process currently used, the 9,150 acre feet of water conserved by this project, depending on conditions and if not needed by NSPC users, could potentially be made available to the Bureau of Reclamation by NSPC. If that was the case, the water from the pump company could actually constitute 2% of the total yearly Bureau of Reclamation requirement.

The proposed project has the potential to provide a direct benefit to recovery efforts for fall Snake River Chinook salmon; spring/summer Snake River Chinook Salmon; and Sockeye Salmon; all of which are Federally-recognized endangered species. It also will benefit Snake River steelhead, Bull Trout and Snake River White Sturgeon which are listed as Federally-recognized threatened species.

This benefit accrues because increased stream flows plus the need to maintain historic streamflow levels in the Snake and Columbia Rivers are established, critical elements in salmon, recovery efforts in the Pacific Northwest, while the maintenance of historic streamflow levels in the Snake River is a lynchpin in the efforts to maintain steelhead and white sturgeon habitat.

#### **D** - Water Marketing

The 9,150 acre feet of water conserved via this project feet creates an excellent water marketing possibility which can potentially become part of the NSPC operation.

Although first priority use of any water saved would always be to meet the demands of the NSPC system users, abundant water years would potentially provide the opportunity for the water to be made available to other users via the Idaho Water Bank process.

The conserved NSPC water would be retained in Snake River storage and then marketed to irrigation entities or to entities or projects involving the Snake River. The availability of the saved water also would present the opportunity for a variety of situation specific water exchanges.

Should NSPC decide to market the conserved water, it would become an excellent candidate for a wide variety of water users in the immediate vicinity and elsewhere. Idaho also has a long history of using simple or sophisticated rental water exchange projects to resolve one-time or ongoing water conflicts where, for example, rented water is used to replace water taken out at some other point in the system; as mitigation for groundwater withdrawals deemed injurious to surface water users; as part of formal groundwater recharge efforts essential to state water plans for the Eastern Snake Plain aquifer, etc.

The water market potential exists year round; however, the primary duration of the annual water market would be April-October, the designated irrigation season. Still, the water market would be available throughout the entire calendar year since flow augmentation, water exchange projects, etc., are not confined to irrigation seasons.

It should also be noted that the additional 5,000 acre feet of water conserved by the canal company also becomes available for potential inclusion in the Idaho Water Bank although NSPC cannot provide any assurance that it would in fact happen. However, Idaho canal companies and Irrigation Districts have traditionally adopted a stance of when possible making spare water available to the larger water user community as a means of serving the entire region.

The legal issues involved in any potential water marketing are already in place plus having been codified in Idaho water statutes specifically germane to operation of the Idaho Water Bank.

#### **E. Other Water Supply Sustainability**

<u>E.1: Addressing Adaptation Strategies in a WaterSMART Basin Study</u>: The complex hydrology and interrelated irrigation water supply elements in southern Idaho provide a means whereby water saved in the Jerome area can be of benefit to the Henry's Fork Basin of eastern Idaho, the subject of the WaterSMART Henrys Fork Basin Study.

Simply put, all waters in the southern half of the state are eventually tributary to the Snake River. Therefore, irrigation water from the Henrys Fork becomes part of the supply utilized by senior water right holders in the Magic Valley under Idaho's "First in Time, First in Right" water rights doctrine.

However, the law also provides for water exchanges, water transfers, and other means to manage overall water supply issues. Therefore, it is a possibility that a situation could arise where the water conserved through the project could potentially be part of an exchange that would result in water in the Henrys Fork Basin being removed from the downstream supply demand and instead be retained as in stream flows, groundwater recharge or other similar uses. Those are key elements of solutions contained in the Henrys Fork Basin Study that will enter into play because the conserved water becomes available where it was not previously.

As this element of the application is evaluated, please understand that it is impossible to say the potential benefits to the Henrys Fork Basin described above WILL happen. But it is definitive that they CANNOT happen if the conserved water does not exist. Idaho has a long and impressive history of just such innovative use of available water for important needs geographically removed from the immediate location of the project but still part of the water supply system.

<u>E.2: Expediting Future On-Farm Irrigation Improvements:</u> This project has enormous benefits in terms of moving the entire North Side Pumping Company a quantum leap forward in its goal of water and energy conservation and enhanced irrigation techniques and strategies.

NSPC was formed in 1912 and much of its procedural efforts have unfortunately remained rooted in the techniques of the last century due to the need to use existing equipment and facilities. While many of its shareholders have adopted new on-farm strategies such as conversion to sprinkler irrigation, there are still areas where flood or furrow irrigation is used.

The apparent inefficiency of a communal ditch supply process also prompted the development of a company-wide water delivery and use commitment to absolute minimum water wastage. This project has been five years in the planning and is designed to be the first step in a total evolution within the pumping company and its water users.

The use of individual, measured and ditchrider managed headgates will provide users a vehicle to upgrade their own existing systems. Conversion to sprinkler from furrow irrigation when the new connections are established is already a topic of discussion with the individuals

concerned. Piped water delivery from headgates to water use points also means minimum loss in transmission.

It is difficult to predict what future water and energy savings will result from on-farm improvements. But what is clear that this is an important change in the irrigation thought process. The historic view of "there will always be enough water all the time" is changing to an understanding that every drop must be conserved if irrigation fueled farming is to be sustained into the future.

Perhaps the greatest measurement of how this project will foster on-farm improvements and collaboration among water user parties is the fact that all 19 individual water users affected by the project have signed specific agreements with NSPC that formally commits them to helping fund this project. Copies of the signed agreement are on file at the NSPC office. That level of commitment to irrigation modernization is especially significant in this project when you consider that the average individual cost to the users is approximately \$55,000, with several in the \$100,000 to \$200,000 range.

Additionally, the direct participation of the North Side Canal Company and its donation of \$175,500 in construction speak to a significant collective mindset as to the direct and indirect benefits of the program.

<u>E.3: Building Drought Resiliency:</u> To fully grasp the inherent drought resiliency benefits provided by this project, it must be put in the water supply environment context in which Magic Valley, indeed all of southern Idaho, farmers and irrigation systems operate.

The project is located in an area that receives approximately 10 inches of annual precipitation making it totally dependent on snowpack every year for natural flow and storage water from the Snake River and its tributaries.

Since the early 1990s, southern Idaho has suffered from varying degrees of drought broken only by an occasional average water year. Groundwater levels have declined so significantly that new water supply development is largely halted The result is a farming environment where year to year projections of the water supply cannot be accurately determined until just prior to the start of the irrigation season. That has seriously affected crop planting decisions by farmers, especially in high water use crops such as corn, potatoes and alfalfa.

The annual water savings from this project thus means that 9,150 acre feet of "water-inthe-back-pocket" provides irrigators a much needed water certainty stability and flexibility that cannot be overstated. Unpredictable yearly water shortages due to drought can then be mitigated by water left as carryover from the previous year. That fact can make the different between success and failure at the individual farmer level.

It should be noted that the drought and groundwater declines of the last two decades have created a series of ongoing, sometimes bitter water conflicts. Legal battles have divided the groundwater and surface water communities. Water curtailments have been imposed at times by the state of Idaho. Slowly, the consensus has developed that the solution will require effort and commitment by all water users in the basin.

A project such as that proposed by NSPC may seem small by the amount of water and energy conserved in comparison to the basin-wide water community. But the level of financial and individual water user commitment being demonstrated by NSPC water users—and the canal company—resonates very strongly in the minds of other water users because it is a concrete example of a traditional Idaho attitude of neighbors helping neighbors.

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#### E.4: Other Water Supply Sustainability Benefits:

1. There is an unrelenting demand for additional water for agricultural, municipal, industrial and residential development use throughout the entire Snake River Basin of Idaho, an area consisting of the southern half of the state.

The project is located in an area that receives a limited supply of natural precipitation – 10 inches per year – and is totally reliant on surface water diverted from the Snake River, the availability of which is essentially totally dependent on snowpack, an uncontrollable variable. Increasing periods of drought over the past 20 years have only added to the problem. Groundwater development provided a solution for a while but now new groundwater development has been largely blocked due to moratoriums put in place in an effort to halt declining groundwater levels.

The lack of water supply certainty coupled with the demand for water has created economic demand, jurisdictional disputes and unending competition between existing water users and the need for more water to meet the water demands of high levels of agricultural, business and residential development.

The focus in recent years has turned increasingly to water conservation as a way to enhance supply sustainability. This project fits perfectly into that strategy.

2. Water for Indian Tribes - Three Idaho Indian tribes hold water rights tied to the water source used by NSPC. The Shoshone-Bannock Tribes have water rights on the Upper Snake River in Eastern Idaho; and the Nez Perce Tribe has water rights on the Snake River downstream from the areas that are codified in the Nez Perce Agreement between the Tribe and the State of Idaho. The conserved water from this project thus potentially could be made available by NSPC for exchange or supplemental use should those tribes find it to their advantage, especially if water use conflicts continue to escalate in Idaho.

3. The project is a classic example of collaborative efforts designed to directly confront changing conditions. Bear in mind that the NSPC and its shareholders could have simply continued business as usual. But instead, the NSPC has spent five years developing a forward looking plan and securing 100% agreement, support, and the unanimous necessary financial support from 19 diverse water users plus a substantial donation of equipment, labor and materials from a separate canal company. The local power provider, Idaho Power Company, also provided technical assistance by conducting energy conservation audits to determine the degree of energy savings that could be realized. That type of joint effort at the lowest grassroots level is a classic example of collaborative efforts designed to meet new challenges and changing conditions.

4. This project will clearly increase awareness in the region of positive water and energy conservation project potential. When completed the project will be well publicized within the Idaho water community via related water association meetings, seminars and activities. It is anticipated that regional news media and industry media will have interest due to the high sensitivity to water related issues in the Magic Valley and elsewhere in southern Idaho. Other irrigation entities that utilize the pumping plant/pump ditch system can use the techniques and processes employed by the NSPC in this project as a blueprint for similar projects in their own areas of operation. That is already evident by the interest the project has prompted in another

irrigation association, detailed earlier, to explore the soft conversion process to reduce pumping power demands while helping to conserve critical groundwater.

5. The project involves both energy and water components. Critical irrigation water is being saved while electrical demands are being reduced; better water measurement and management is being created at the same time that more energy efficient systems are replacing older, inefficient systems.

#### **F: Implementation and Results**

#### F.1: Project Planning:

This project has been five years in the development and constitutes the essence of a NSPC Board of Directors approved decision to implement a plan of system evolution designed to reduce water losses and electrical operating costs to its shareholders. The Board also anticipated the financial consequences of the eventual end-of-operating-life for a pumping plant that is now more than 100 years old.

As part of determining the best course of action, the Board and the NSPC manager evaluated a variety of strategies over the past several years including equipment updating and replacement.

The proposed project presented here was ultimately selected because it was deemed the most beneficial in both the short run and as part of a longer term evolution by NSPC to a more efficient system, from both a water conservation and energy reduction basis. It also had formal buy-in from all individual shareholders who would be both financial affected and benefitted by the results of the project. That full buy-in for the plan is confirmed by signed agreements from the shareholders committing to completion of the project.

#### F.2: Readiness to Proceed.

The project is ready to proceed immediately upon entering into a financial assistance agreement with the Bureau of Reclamation.

The specific project schedule was outlined in great detail earlier in this application but will generally be as follows:

- October 2015 to April 2016 construction of new regulator ponds and construction and installation of new headgates on lateral canals located on the northern and southern sides of the project area.
- October 2015 to April 2017 shareholders utilizing irrigation equipment contractors selected by competitive bidding will begin connecting to the new delivery point as they become available. Note: this activity can only take place outside of the growing and irrigation season of April-October so delivery point construction will be completed well ahead of connection completion.
- April 2017 to October 2017 Pumping Plant 4 will be full decommissioned and abandoned; in-fill of the 20 miles of abandoned pump ditches will be accomplished by property owners.

#### F.3: Performance Measures

There are several different methods available by which post-project benefits will be determined and evaluated.

Installation of precise water measurement devices in the new headgates will provide detailed data on total irrigation season water use. At the end of the irrigation season, the total water use for the users involved in the project will be compared to pre-project water use records compiled in yearly water use reports completed by the NSPC manager.

The difference between the two will provide a precise delivery comparison between pre and post project irrigation periods. That will provide a quantified method of determining the water savings resulting from both the ditch closure and the vastly improved individual delivery point management.

NSPC maintains strict fiscal accounting records of power use – as does the power supplier Idaho Power Company. That provides a means to directly compare total irrigation electrical use pre and post project.

Other records are maintained detailing any of the conserved water marketed to other entities through actions such as entering the water in the water bank system, water exchanges, etc.

#### F.4:Reasonableness of Costs:

Total project cost, both Bureau of Reclamation and local funding is calculated to be \$1,297,073. The annual acre feet of NSPC water conserved is 9,150 while the total acre feet of water that will be better managed will be the NSPC entire water supply of 42,341 acre feet. Energy savings are calculated to be at least 521,000 kWh per year. Based on irrigation construction industry general standards, consultation with irrigation company officials and decades of first-hand practical experience by the irrigation community the expected life of the project is estimated to be a minimum of 75 years. It should be noted that these figures do not take into account the additional 5,950 acre feet of North Side Canal Company water conserved nor the increased flexibility it provides to the canal company in the management and delivery of water to 165,000 acres of irrigated agriculture.

#### **G: Additional Non-Federal Funding**

The total cost of the project has been calculated to be \$1,297,073. The non-Federal funding amounts to \$697,073. Non-Federal funding therefore amounts to 53.75% of the total project cost.

<u>\$697,073</u> \$1,297,073

#### **H: Connection to Bureau of Reclamation Project Activities**

1. The NSPC uses natural flow and storage water stored in Bureau of Reclamation projects on the Snake River including American Falls.

2. The project receives Bureau of Reclamation water diverted from the Snake River.

3. The project is not located on Bureau of Reclamation lands and does not involve Reclamation facilities.

4. The project is located within the Snake River Basin which contains several different Reclamation projects including dams, storage reservoirs and water transmission facilities such as canals.

5. The benefits from the project will contribute water to the Snake River Basin where a complex system of Bureau of Reclamation projects, facilities and water delivery and supply systems are located.

6. The water saved due to the project can conceivably help the Bureau of Reclamation meet trust responsibilities to Idaho Indian Tribes. Conserved water marketed through the Idaho Water Bank or a willing seller – willing buyer could be used by the Bureau of Reclamation to meet Snake and Columbia tribal trust obligations should the Bureau of Reclamation choose to do so.

#### **Environmental and Cultural Resources Compliance**

It is not anticipated that there will be any environmental or cultural resources issued involved in the project. However, as a precaution, a line item entry in the project budget has been included as a precaution and to fulfill application requirements.

1. Work on the project will not impact the surrounding environment. All regulator pond and headgate construction will occur in 19 different locations, each of which is in a very confined area with minimum earthwork. The sites are situated on canal company water distribution system lands or agricultural lands currently being farmed and which are removed from any population. Work will be done when canals are empty so there will be no impact on water. Dirt removed in construction will potentially be used for in-fill during ditch abandonment. None of the land involved is consider to be animal habitat.

2. NSPC is not aware of any endangered or threatened species in the project area.

3. There are no other wetlands or surface waters inside the project boundaries that currently are subject to Clean Water Act jurisdiction.

4. The water delivery system was constructed in 1912.

5. There will be modifications and effects on the existing system. New headgates will be installed on lateral canals; checks and existing tap points will be removed from two pump ditches; both ditches will eventually be abandoned and in-filled; and an existing pumping plant will be decommissioned and abandoned.

6. There are no buildings, structures or other features on or eligible for listing on the National Register of Historic Places.

7. There are no known archeological sites in the project area.

8. The project will have no effect on low income or minority populations.

9. There are no Indian sacred sites or other tribal lands in the project area.

10. The project will greatly enhance prevention efforts involving noxious weeds. More than 20 miles of open ditch that can carry or distribute noxious weed seeds will be eliminated. Additionally, when the ditches are in-filled, it will eliminate grounds that currently are favorable to the growth of certain noxious weeds typically found along open waterways.

#### **Required Permits or Approvals**

No special permits are required for the groundwork or other parts of the project because Idaho law provides a specific agricultural exemption for irrigation delivery system maintenance done within easements on property owned by the NSPC or by North Side Canal Company. Any right of water issues on adjacent private agricultural property have been settled with signed agreements between NSPC and the property owner; the agreements are on file at the NSPC office.

All electrical and equipment installation will be done by licensed electricians and plumbers and will meet existing local or state of Idaho construction code standards and requirements including any required inspections.

#### **Agricultural Operations Agreement**

One of the specific elements of this project will result in the conservation of irrigation water. Accordingly, and in accordance with Section 9504(a)(3)(B) of Public Law 111-11, the North Side Pumping Company hereby agrees and stipulates:

- Not to use any associated water savings to increase the total irrigated acreage of lands inside the NSPC jurisdiction; and
- Not to otherwise increase the consumptive use of water in the operation of the NSPC, as determined pursuant to the law of the State of Idaho.

# RTH SIDE PUMPING COMPA 921 NORTH LINCOLN \* JEROME IDAHO 83338 \* (208)324-2319 \* FAX (208)324-8906

#### NORTH SIDE PUMPING COMPANY RESOLUTION

#### NORTH SIDE PUMPING COMPANY

Whereas North Side Pumping Company Board of Directors have reviewed and supports the elimination of Plant #4; and

Whereas the North Side Pumping Company is capable of providing its share of the funding or in kind contribution, specified in the funding plan; and

Whereas if selected for a Bureau of Reclamation WaterSMART Grant, the North Side Pumping Company will work with the Bureau of Reclamation and North Side Pump #4 Shareholders to meet established deadlines for entering into a co-operative agreement and complete work as agreed.

Now therefore, North Side Pumping Company Board of Directors approve a submittal of a WaterSMART Grant and accomplish the above.

Date <u>\r</u>

Authorized Signature

Ed Brune, Chairman North Side Pumping Co.

ATTEST

North Side Pumping Co., Manager

## **Project Budget**

Funding Sources	Funding Amount
Non-Federal entities	
1. North Side Pumping Company	\$521,573
2. North Side Canal Company	\$175,500
Non-Federal subtotal:	\$697,073
Other Federal entities	None
Other Federal subtotal:	\$0
Requested Reclamation funding:	\$600,000
Total project funding:	\$1,297,073

 Table 1.
 Summary of non-Federal and Federal funding Sources

Table 2.

Funding Group II Request									
	Year 3 (FY 2017)								
Funding Requested	\$300,000	\$300,000	\$0						

Pumping Plant 4 & Pump Ditch 05										
WaterSmart: Water and Energy Efficiency Grants for FY 2015										
Budget Narrative										
Expense Item	Unit	Rate	Total	In-Kind	BOR	Total				
Administrative										
1. Project Manager	260 hours	\$30 per hour	\$7,800	\$7,800		\$7,800				
2. Benefits	\$7,800	34%	\$2,652	\$2,652		\$2,652				
3. Project Mgr's Travel	600 Miles	\$0.55	\$330	\$330		\$330				
Subtotal			\$10,782	\$10,782		\$10,782				
						<u> </u>				
Construction										
<b>1.</b> Construct Pump Ponds	15	\$5,500	\$82,500	\$82,500						
2. Construct Headgates	16	\$3,000	\$48,000	\$48,000						
3. Remove Existing Headgates, Check Dams			<u>\$45,000</u>	<u>\$45,000</u>						
Subtotal			\$175.500	\$175.500		\$175.500				
			+	<i>\</i>		+210,000				
Install New Individual	19 points									
Delivery Point User	on two									
System Connections	canals	ļ								
1. Machine Labor			\$222.646	\$222.646						
2. Elec./Other Labor			\$122.685	\$122.685						
3. Pumps & Panels			\$347.473	\$130.460	\$217.013					
4. Pipe, Multiple Sizes			\$207.465	· · · · · · · · · ·	\$207.465					
5. Misc. Pipe Parts		-	\$111.886		\$111.886					
6. Wire			\$63.636		\$63.636					
Subtotal			\$1.075.791	\$475.791	\$600.000	\$1.075.791				
		-		+	+	+=,==,==				
Abandon Pump Plant			\$5,000	\$5,000		\$5,000				
Infill Pump Ditches	20 Miles	\$1,000 per Mile	\$20,000	\$20,000		\$20,000				
Miscellaneous				1						
Environmental										
Compliance Costs	1		\$10,000	\$10,000		\$10,000				
Project Total				\$697,073	\$600,000	\$1,297,073				
<b>Project Funding Division</b>				53.75%	46.25%	100%				
• Aggregate user connection costs for all 19 connects established by documented competitive bidding via private irrigation companies. All signed bids are on file with NSPC.										

#### **Project Budget Narrative**

Funding for the project will be a combination of local in-kind and monetary financial support plus Federal dollars.

The total cost of the project is \$1,297,073 of which \$600,000 will be Federal dollars and local funding \$697,073. That yields a cost share of 53.75% local and 46.25 % Federal.

Federal dollars be used to pay exclusively for materials and parts needed for water user connections including pipe, miscellaneous pipe parts, wire, pumps and panels.

There are 19 separate and distinct water user connections included in the project. That means there is a wide variance of factors such as distance from the lateral canal headgate to the water application point, the condition of existing equipment versus replacements, land typography, etc.

It was determined the most efficient and precise method of cost planning, accounting and financial responsibility for each of the 19 would be to determine connection costs through a process of competitive bidding conducted by the 19 shareholders rather than a collective cost divided equally. Each shareholder was required and obtained formal project bids for their respective connections. Those final, accepted bids are on file at the NSPC offices and available for inspection. They ensure fixed price costs that can be relied upon for planning and accounting purposes in allocating costs among the 19 shareholders.

The final selected bid for each connection point specified labor and material costs. The collective costs of labor and materials for all 19 were totaled and are what have been used in the project budget. The \$600,000 in Federal funding would be used to pay for materials incidental to the total material costs for the connections. Labor costs for each individual connection would be paid for by the shareholder.

Rather than include 19 separate spreadsheets each of several pages in length for the individual connection elements for each shareholder, we have included one example to illustrate the cost accounting method used to determine individual and aggregate costs for one construction item. The example details the pipe costs for which Federal dollars would be used. That method was also used to determine the cost and share for other material components such as panels, pumps, wiring etc. for which the Federal dollars would be used. The example detailed budget outline is included on a page following this narrative.

Local Funding will consist of \$697,073 in monetary and in-kind funding divided as follows:

In-kind funding of:

• \$175,500 will be provided by North Side Canal Company in the form of labor, materials, equipment and materials for the construction of headgates and regulator ponds on lateral canals, and clearance of all existing structures on 20.5 miles of pump ditches. NSPC has relied on North Side Canal Company to determine the cost they will incur in using their equipment and manpower to complete their portion of the project. The company has more than 100 years of experience in the specific construction of headgates, regulator ponds and the clearing of ditches. They have determined a cost basis for each of those individual actions which is being used in determining their contribution.

- \$10,782 will be provided by North Side Pumping Company in the form of salary, benefits and transportation for the project manager who will allocate 130 hours per year over the two-year life of the project.
- \$15,000 will be provided by North Side Pumping Company in the form of monetary funding for potential environmental regulatory compliance, and to decommission and abandon Pumping Plant 4.
- \$20,000 will be provided by the North Side Pumping Company shareholders (water users) in the form of costs to in-fill the 20.5 miles of abandoned pump ditches.

Direct local monetary funding of

• \$475,791 will be provided by the 19 North Side Pumping Company shareholders who will use the water. Their funding will pay for the costs of contract labor and machine labor required in the process to connect their irrigation systems to the new lateral canal headgates, and any residual materials costs not covered by the Federal dollars.

It is not anticipated that any significant costs for environmental and regulatory compliance will be involved in the project because all work is to be done in areas covered by exceptions granted under Idaho statute to irrigation water delivery entities. However, a budget line item of \$10,000 has been included in the budget as a precaution. Any funds not used for environmental and regulatory compliance costs will be reallocated into the in-kind portion as a contingency allocation.

Letters of commitment to this funding plan follow this narrative.

**Special Note:** Each of the 19 North Side Pumping Company shareholders participating in the project has signed a commitment document to confirm their financial commitment to the project. Rather than include 19 individual letters of commitment, we have chosen to include a letter of certification signed by the Board Chairman of NSPC that stipulates:

- That the 19 signed agreements are on file at the NSPC offices and are available for formal review at all times;
- The aggregate total of the 19 signed commitments is equal to the \$475,791 in direct monetary support identified in the budget as coming from NSPC shareholders.

				PUMPING	PLANT 4 C	LOSURE &	PUMP DIT	CHES ABA	NDONME	NT			
					PROJEC	CT PIPE EST	IMATE (in fe	eet)					<u> </u>
Shareholder	15" 80#	12" 80#	12" 100#	10" 100#	10" 125#	8" 80#	8" 100#	8" gated	6" 80#	6" 100#	4" 100#	4" w/risers	TOTAL
1							3200						3200
2					3960								3960
3	3500			2500			1060						7060
4		6160			4000						700		10860
5							2360						2360
6						80							80
7			2140	1360									3500
8			1800										1800
9								1080					1080
10				1400									1400
11												900	900
12						850							850
13				700									700
14									2600				2600
15										650	260		910
16							1750						1750
17				· · · · ·						1040			1040
18							420			1000	880	<u> </u>	2300
19						1400							1400
	15" 80#	12" 80#	12" 100#	10" 100#	10" 125#	8" 80#	8" 100#	8" gated	6" 80#	6" 100#	4" 100#	4" w/risers	Total
Total Feet	3500	6160	3940	5960	7960	2330	8790	1080	2600	2690	1840	900	47750
Cost/ foot	\$7.71	\$5.11	\$6.60	\$4.37	\$6.13	\$2.44	\$2.95	\$4.36	\$1.41	\$1.69	\$0.93	\$2.11	
Total Cost	\$26,985.00	\$31,478.00	\$26,019.00	\$26,040.00	\$48,818.00	\$5,695.00	\$25,901.00	\$4,709.00	\$3,670.00	\$4,538.00	\$1,713.00	\$1,899.00	\$207,465.00
<u> </u>													
					Total	Cost - \$2	07,465						
								1	<b> </b>				
<u></u>								1	<u> </u>				
		1											1

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# **NORTH SIDE PUMPING COMPANY** 921 NORTH LINCOLN \* JEROME IDAHO 83338 \* (208)324-2319 \* FAX (208)324-8906

November 14, 2014

To Whom It May Concern:

This is to certify that 19 individual, signed agreements with a combined total dollar amount of \$475,791.00 are on file at the office of the North Side Pumping Company.

The agreements represent individual financial commitments from the 19 North Side Pumping Company shareholders who have agreed to participate in and which formally commits them to financial support of this WaterSmart project.

The 19 signed shareholder commitments are available for inspection at any time during normal office hours at the North Side Pumping Company office, 921 North Lincoln St., Jerome, Idaho 83338.

This letter of certification is being provided in lieu of submitting 19 separate but identical letters of commitment for inclusion in the WaterSmart grant applications to the Bureau of Reclamation.

Sincerely,

Ed Brune, NSPC Chairman



# NORTH SIDE CANAL COMPANY, LTD.

921 NORTH LINCOLN \* JEROME IDAHO 83338 \* (208)324-2319 \* FAX (208)324-8906

October 23, 2014

Mr. Joe Cooper Manager North Side Pump Company 921 N. Lincoln Jerome, ID 83338

RE: North Side Pumping Company-Pump Ditches 4 & 5

Dear Mr. Cooper,

As you are aware, the North Side Canal Company will be assisting with the abandonment of Pump Ditches 4 & 5 that are located on the Jerome Butte. North Side Canal Company intends to furnish the following equipment, materials, and labor necessary to complete the following tasks associated with the project:

- 1. Construction of fifteen (15) new ponds to accommodate new diversion locations. The estimated construction cost for the ponds is \$82,500.
- 2. Installation of sixteen (16) new headgate structures at the new diversion locations. The estimated construction cost for the headgates is \$48,000.
- 3. Headgates and check structures will be removed from the existing pump ditches. The estimated cost for the removal of structures from the existing ditches is \$45,000.

The total of the above estimated costs is \$175,500 which will be paid for by North Side Canal Company. If you have any questions regarding the Company's participation, feel free to contact me at (208) 324-2319.

Sincerely,

ala W. Harste

Alan W. Hansten, P.E. Manager