FIRST LEVEL SCREENING – *WEEG 2015*

APPLICANT NAME:	CONTROL NUMBER:
St. John's Irrigating Company	17
APPLICANT LOCATION:	**TASK AREA:**
3849 W. 1000 N., Malad, Idaho, 83252-9999	A
PROJECT NAME:	**BOR $:** 1,000,000
St. John's Canal Enclosure Project	**Cost Share $:** 1,429,775

	SCREENING FACTOR	COMPLETE	COMMENTS
1	Eligibility requirements		
	• Eligible applicant in a Reclamation state	✓YES __NO	
	• 50% or more non-Federal cost share	✓YES __NO	
	• Authorized funding amount ($1 Million total – no more than $500,000 a year)	✓YES __NO	
	• Funding Group I or II	__I ✓II	
	• Length of project (9/30/17 – FG I or 9/30/18 – FG II)	✓YES __NO	3 year
2	Proper format and length (75 pages)	✓YES __NO	
3	Proposal content		
	• SF-424 (authorized signature)	✓YES __NO	
	• SF-424B or SF-424D (authorized signature)	✓YES __NO	
	• Title page	✓YES __NO	
	• Table of contents	✓YES __NO	
	TECHNICAL PROPOSAL/EVALUATION CRITERIA (No More Than 50 Pages)		
	• Executive summary	✓YES __NO	
	• Background data	✓YES __NO	
	• Technical Project description	✓YES __NO	
	• Evaluation Criteria	✓YES __NO	
	• Project Benefits/Performance Measures	✓YES __NO	
	• Potential Environmental Impact Desc.	__YES ✓NO	
	• Required Permits/Approvals, if applicable	✓YES __NO	Not ~~yet~~ obtained
	• Letters of Project Support	__YES ✓NO	
	• Official Resolution (Required 30 Days After)	✓YES __NO	
	PROJECT BUDGET		
	• Funding Plan	✓YES __NO	
	• Letters of Funding Commitment	__YES ✓NO	
	• Budget Proposal	✓YES __NO	
	• Budget Narrative	✓YES __NO	
	• SF-424A or SF-424C	✓YES __NO	

1st Level Screening Comments (Screening Committee Member):

Summary Comments (Grants Officer):

Applicant is eligible for consideration during the Second Level Evaluation phase ✓ **Yes** ____ **No**

Grants Officer 1/26/15 **Date**

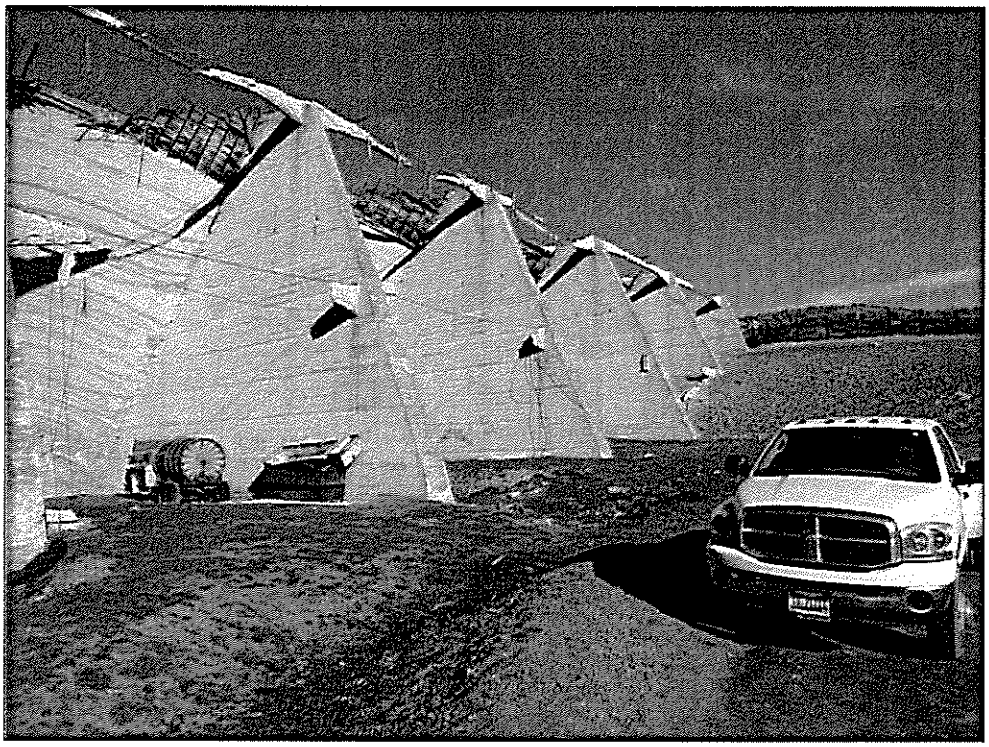
WaterSMART:
Water and Energy Efficiency Grants for FY 2015

FOA No. R15AS00002

Funding Group II

St. John's Canal Enclosure Project

Malad, Idaho



St. John's Irrigating Company
3849 W 1000 N
Malad, Idaho 83252

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January 16, 2015

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TECHNICAL PROPOSAL

1. Executive Summary

The executive summary should include:

- *The date, applicant name, city, county, and state.*
- *A one paragraph project summary that specifies the work proposed, including how project funds will be used to accomplish specific project activities and briefly identifies how the proposed project contributes to accomplishing the goals of this FOA (see Section III.B, "Eligible Projects" in the FOA).*
- *State the length of time and estimated completion date for the project.*
- *Whether or not the project is located on a Federal facility.*

Estimated Start Date: September 1, 2015

Estimated End Date: May 1, 2017

Applicant's Name: St. John's Irrigating Company

Project Location: Malad, Oneida County, Idaho

Project Summary:

St. John's Irrigating Company provides irrigation water to approximately 3,500 acres of agricultural land. Water for the system comes from Daniels Reservoir, a small irrigation reservoir located on the Little Malad River. Water is provided to the farms through a system of gravity-flow canals, about 25 miles total in length. Two main problems with the system as currently constructed is high water loss and soil erosion. Farmers are constantly fixing pumps, pipes, and screens due to sedimentation build up. It is estimated 50% of the water is lost through seepage and evaporation. High water loss and recent dry years have caused an early end to the irrigation season and not allowed St John's to use their full water right. The purpose of the project is to enclose approximately 7 miles of canal to conserve water, eliminate erosion (in the piped location), and provide pressure to reduce pumping costs. A grant would make the project financially feasible. This project accomplishes the goals of the FOA by conserving water, using water more efficiently, reducing erosion, and improving energy efficiency.

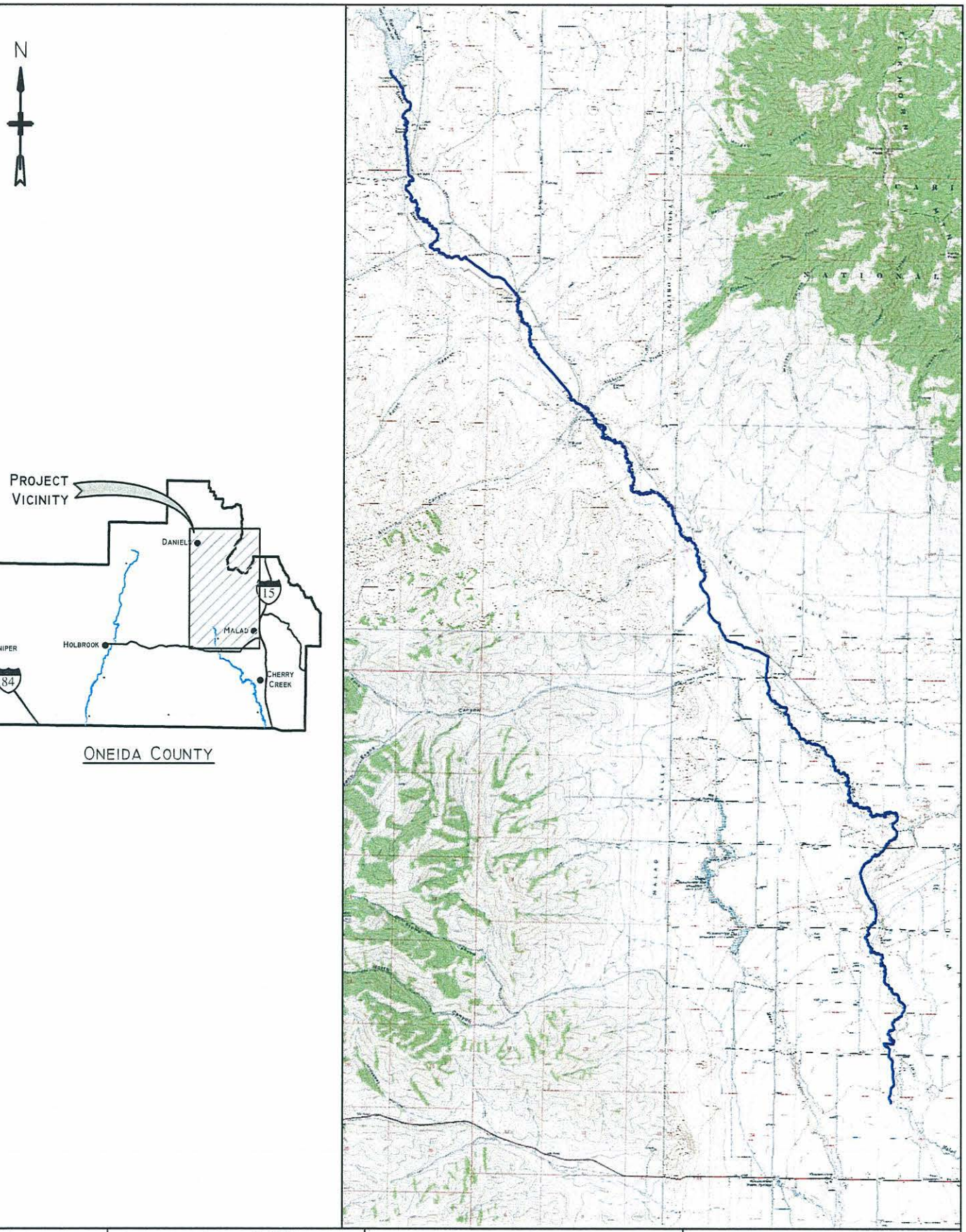
The project is not located on a Federal Facility.

2. Background Data

Location

Provide a map of the area showing the geographic location (include the State, county, and direction from nearest town).

Water for the St. John's Irrigating Company comes from Daniels Reservoir located on the Little Malad River. See Figure 1 for the location map.



FRANSON CIVIL ENGINEERS

DATE: JANUARY 16, 2015

SCALE:

Funding Map.dwg

\\Franson\Data\CLIENT\7-Western US Area\Idaho\St. John's Irrigation District\Drawings

LAYOUT: Overall

ST. JOHN'S IRRIGATING COMPANY

FUNDING APPLICATION

FIGURE 1

PROJECT AREA MAP AND COUNTY MAP

Applicant's Water Supply

As applicable, describe the source of water supply, the water rights involved, current water uses (i.e., agricultural, municipal, domestic, or industrial), the number of water users served, and the current and projected water demand. Also, identify potential shortfalls in water supply. If water is primarily used for irrigation, describe major crops and total acres served.

St. John's Irrigating Company is a private company that provides water to agricultural users and very few small residential lawns. The company owns several water rights. The land attached to these water rights irrigates 3,500 acres in Oneida County, Idaho. Water is diverted from Daniels Reservoir into the Little Malad River and then diverted into the irrigation canal system. St. John's has water rights to divert 8,868 acre-feet (AF) annually. In dry years, Daniels Reservoir has not filled enough to allow St. John's to divert their allotted water rights. This problem is compounded by the high infiltration rate of the soil at Daniels Reservoir, Little Malad River, and St. John's irrigation canals. The primary crop irrigated is hard red winter wheat with other farmers growing barley, hay and recently sod. It is believed approximately 50% of the water is lost to infiltration and evaporation. While no specific measuring devices have measured the amount of water lost, an expensive case study provides valuable insight.

Around the same time as the Hoover Dam was being constructed, the Elkhorn Dam in Malad, Idaho was also being constructed by the Bureau of Reclamation. The Elkhorn Dam (see cover photo) is a concrete dam on the Little Malad River downstream from where Daniels Reservoir Dam currently is constructed. The location of Elkhorn Dam appears to be perfect due to the old river channel narrowing so the length of the dam would be minimized. Dam construction began and was completed with what would have cost millions in today's dollars. The problem is the soils have such a high infiltration rate that the Dam would not retain or pond water. The Elkhorn Dam is an impressive structure that I believe even today, 90 years later, would retain water if the soils permitted. This case study indicates the high infiltration rates of the soils, and it is easy to conclude that a high percentage of the water being diverted from Daniels Reservoir is lost to infiltration.

Table 1: St. John's Irrigating Company Water Rights

Water Right	Source	Flow	Volume	Type	Priority
15-42	Little Dip Vat Channel	.47 CFS		Decreed	7/1/1877
15-44	Little Malad River	Not Listed	Not Listed	Decreed	5/22/1878
15-58	Little Malad River	Not Listed	Not Listed	Decreed	3/20/1922
15-59	Reservoir Creek	Not Listed	Not Listed	Decreed	3/20/1922
15-71	Meadow Creek	Not Listed	Not Listed	Decreed	11/13/1888
15-2078	Little Malad River (Daniels Reservoir)		625 AFA	License	4/29/1950
15-2080	Little Malad River		8075 AFA	License	1/9/1962

Describe Water Delivery System

In addition, describe the applicant's water delivery system as appropriate. For agricultural systems, please include the miles of canals, miles of laterals, and existing irrigation improvements (i.e., type, miles, and acres). For municipal systems, please include the number of connections and/or number of water users served and any other relevant information describing the system.

St. John's irrigation system begins at Daniels Reservoir. Based upon demand, the water is released into the Little Malad River and diverted into St. John's irrigation canals.

The length of the entire delivery system is as follows: Little Malad River – 10 miles, Main Canal – 10 miles, Lateral Canals – 5 miles. As you can imagine with 25 miles of open canals, not including landowners personal canal systems, a large portion (50%) of the water to irrigate the 3,500 acres is lost. As part of the project, meters will be installed on all users who branch off the main portion of the canal that is proposed to be piped.

Renewable Energy or Energy Efficiency

If the application includes renewable energy or energy efficiency elements, describe existing energy sources and current energy uses.

It is anticipated that users along the section of the project that is proposed to be piped will have reduced pumping costs thus using energy more efficiently.

Prior Work with Reclamation

Identify any past working relationships with Reclamation. This should include the date(s), description of prior relationships with Reclamation, and a description of the projects(s).

Daniels Reservoir was a built in 1967 by the Bureau of Reclamation. St. John's Irrigating Company paid a portion of this project to Reclamation. They paid $18,000 for at least 20 years until the loan was paid in full.

3. Technical Project Description

The technical project description should describe the work in detail, including specific activities that will be accomplished as a result of this project. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal.

The proposed project will pipe a 6-mile portion of the main canal that is believed to be an area of high infiltration. A 1-mile section of laterals will also be piped. An inlet/screening structure will be constructed along with an outlet structure. Meters will be placed on all laterals that are along the project pipeline. First, St. John's and the consulting engineer will begin with determining the best alignment, pipe sizes, and the necessary permits. Preliminary engineering has determined the proposed pipeline sizes are 30 inches and 24 inches in size. An environmental and cultural review will be completed. Design will begin and plans, specifications, construction documents will be prepared.

4. Evaluation Criteria

Evaluation Criterion A: Water Conservation

Up to 28 points may be awarded for a proposal that will conserve water and improve efficiency. Points will be allocated to give consideration to projects that are expected to result in significant water savings.

Subcriterion No. A.1 – Quantifiable Water Savings

Up to 24 points may be allocated based on the quantifiable water savings expected as a result of the project.

Describe the amount of water saved. For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project. Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations. Please be sure to consider the questions associated with your project type (listed below) when determining the estimated water savings, along with the necessary support needed for a full review of your proposal (please note, the following is not an exclusive list of eligible project types. If your proposed project does not align with any of the projects listed below, please be sure to provide support for the estimated project benefits, including all supporting calculations and assumptions made).

The full water right per year comes from Daniels Reservoir which is 8,700 AF annually, and 0.47 cfs from the Little Dip Vat Channel. We converted the Little Dip Vat Channel to a volume by converting it to AF/day then multiplying it by 180 days to get 167.8 AF. Therefore, the full water right in volume is 8,868 AF. As previously discussed, it is believed half of all the water in the canal is lost to evaporation and infiltration. It is also believed that the 6 miles of the main channel that is proposed to be piped loses 60% of its water. This is due to two main factors. 1. Frequently during the irrigation season the water master will have to stop this portion of the canal to cause the water to back up and create a "reservoir" that increases the surface height of the water, so farmers can irrigate their land. The "reservoir" increases the wetted perimeter and causes water to pond which both significantly increase infiltration. 2. There are 25 miles of canal; some of these miles are laterals that carry significantly smaller amounts of water. Obviously, 50% of a lower flow is less volume then 50% of a higher flow.

If the full water right (8,868 AF) were discharged, we estimate 1,454 AF will be saved due to the construction of the 7-mile pipeline. This is a weighted average of water lost in the piped lateral versus the main canal. See Appendix G for calculations.

While other WaterSMART applications may have higher water volume, water storage savings per year, farmers in Malad every year have to determine the amount of water in the reservoir in the spring and how much land they believe they can irrigate during the farming season. Many years, if not the majority, they have fields that they do not irrigate because they know there is not sufficient water in the reservoir. Many years, if not most growing season will end early because water is not available to be released from Daniels Reservoir, and farmers are forced to harvest what has been grown. Therefore, every drop of water that is conserved could help extend the growing season, water additional fields, and harvest higher crop yield.

In addition, all applicants should be sure to address the following:

- *What is the applicant's average annual acre-feet of water supply?*

St. John's Irrigating Company has 8,700 AF annually from Daniels Reservoir. The amount of water available for use is based upon the amount of water stored in Daniels Reservoir. St. John's has not been able to utilize the full capacity of their water right due to low water years. St. John's would use more of their water right if water was available. It is estimated that St. John's has used on average 4,434 AF or 50% of the water right annually over the past five years.

- Where is that water currently going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground, etc.)?

Water is currently lost through seepage and evaporation.

- Where will the conserved water go?

Conserved water will be primarily used for irrigation on farms. Conservation of water will allow more water to be available to stay in the Little Malad River, which is a tributary of the Malad River. The Malad River, is a tributary of the Bear River which flows through the Bear River Migratory Bird Refuge.

Please include a specific quantifiable water savings estimate; do not include a range of potential water savings.

(1) Canal Lining/Piping: *Canal lining/piping projects can provide water savings when irrigation delivery systems experience significant losses due to canal seepage. Applicants proposing lining/piping projects should address the following:*

- *How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.*

  The full water right per year is 8,868 AF. We are proposing to pipe 7 miles of the canal. Through a weighted average, water savings has been calculated to be 1,445 AF. Relevant calculations have been provided in Appendix G. Hopefully water savings will be greater, because it is believed this portion of the system is where the most water is lost.

- *How have average annual canal seepage losses been determined? Have ponding and/or inflow/outflow tests been conducted to determine seepage rates under varying conditions? If so, please provide detailed descriptions of testing methods and all results. If not, please provide an explanation of the method(s) used to calculate seepage losses. All estimates should be supported with multiple sets of data/measurements from representative sections of canals.*

  In addition to the calculations shown in the paragraph above, an engineering report on the system was written in 2008. Extensive research was performed on soil types and seepage rates in the area. After reviewing USDA reports in the area and the NRCS soil survey, the study concludes the vast majority of the soil is Kidman fine sandy soils. This conclusion is obviously supported by the Elkhorn Dam experience.

- *What are the expected post-project seepage/leakage losses and how were these estimates determined? (e.g. can data specific to the type of material being used in the project be provided?)*

  The post project seepage/leakage losses in the project area will be close to zero.

- *What are the anticipated annual transit loss reductions in terms of acre-feet per mile for the overall project and for each section of canal included in the project?*

  The loss reductions are going to be 207 acre-feet per mile each year. This was calculated by dividing the total 1,454 AF of conserved water by the 7 miles of canal that will be enclosed.

- *How will actual canal loss seepage reductions be verified?*

  Canal flow measurements will be taken at the inlet of the pipe and at the outlet. The flow that is removed for irrigating crops will be metered. With these measurements, canal seepage loss can be measured.

- *Include a detailed description of the materials being used.*

  Preliminary engineering design indicates that the canal will be enclosed using a 30-inch, 24-inch, and 20-inch PVC pipe. Inlet structure, isolation valves, and a flow meter will also be part of the design. See the map in Appendix F for pipe and pipe size location.

Subcriterion No. A.2 – Percentage of Total Supply

Up to 4 additional points may be allocated based on the percentage of the applicant's total average water supply (i.e., including all facilities managed by the applicant) that will be conserved directly as a result of the project.

Provide the percentage of total water supply conserved: *State the applicant's total average annual water supply in acre-feet. Please use the following formula:*

$$\frac{\text{Estimated Amount of Water Conserved}}{\text{Average Annual Water Supply}} = \frac{1{,}454 \text{ acre-feet}}{8{,}868 \text{ acre-feet}} = 16\%$$

Based upon a previous engineering report, 50% of water in the canal system is lost due to seepage and evaporation.

Evaluation Criterion B: Energy-Water Nexus

Up to 16 points may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency.

For projects that include construction or installation of renewable energy components, please respond to Subcriterion No. B.1— Implementing Renewable Energy Projects Related to Water Management and Delivery. If the project does not implement a renewable energy project but will increase energy efficiency, please respond to Subcriterion No. B.2— Increasing Energy Efficiency in Water Management. If the project has separate components that will result in both implementing a renewable energy project and

increasing energy efficiency, an applicant may respond to both. However, an applicant may receive no more than 16 points total under both Subcriteria No. B.1 and B.2.

Subcriterion No. B.1 – Implementing Renewable Energy Projects Related to Water Management and Delivery

Up to 16 points may be awarded for projects that include construction or installation of renewable energy components (e.g., hydroelectric units, solar-electric facilities, wind energy systems, or facilities that otherwise enable the use of renewable energy). Projects such as small-scale solar resulting in minimal energy savings or production will be considered under Subcriterion No. B.2 below.

Describe the amount of energy capacity. *For projects that implement renewable energy systems, state the estimated amount of capacity (in kilowatts) of the system. Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.*

There are hydrologic energy opportunities in the future. The 2008 study did identify a location for a turbine as a possible source of income. Turbine consideration will be implemented when the project is designed, but no renewable energy will be created during this project.

Describe the amount of energy generated. *For projects that implement renewable energy systems, state the estimated amount of energy that the system will generate (in kilowatt hours per year). Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.*

Not Applicable.

Describe any other benefits of the renewable energy project. *Please describe and provide sufficient detail on any additional benefits expected to result from the renewable energy project, including:*

- *Expected environmental benefits of the renewable energy system*
- *Any expected reduction in the use of energy currently supplied through a Reclamation project*
- *Anticipated beneficiaries, other than the applicant, of the renewable energy system*
- *Expected water needs of the renewable energy system*

Not Applicable.

Subcriterion No. B.2 – Increasing Energy Efficiency in Water Management

If the project is not implementing a renewable energy component, as described in Subcriterion No. B.1 above, up to 4 points may be awarded for projects that address energy demands by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions.

Describe any energy efficiencies that are expected to result from implementation of the water conservation or water management project *(e.g., reduced pumping).*

- *Please provide sufficient detail supporting the calculation of any energy savings expected to result from water conservation improvements. If quantifiable energy savings are expected to result from water conservation improvements, please provide sufficient details and supporting calculations. If quantifying energy savings, please state the estimated amount in kilowatt hours per year.*

The savings in energy efficiencies will be on the individual farms. Many of the farmers use pumps to irrigate their fields. Depending on the location of the farms lateral, off the newly pressurized pipeline, will depend on how much pumping costs will be reduced. In the 2008 study, individual farmers were contacted who had pumping costs each year associated with irrigating their land. Each farmer supplied their pumping costs, and annual on-farm pumping costs were calculated to be a total of $150,040. The proposed pipelines will cause an increase in pressure to some of these farmers, which will lower their pumping costs. Approximately 25 users irrigate along the 6 miles of main canal that will be piped. It is estimated that 12 of these users use pressurized irrigation. It is assumed that 7 of these users will lower their pumping costs by half (end of pipe users +50 psi, beginning -10 psi, conservative assumption 1/2 less pumping) because of increased pressure. The approximate pumping costs of 12 users is $6,000/year. Multiply $6,000 by 1/2 is $3,000 annually per user. Total dollar savings for 12 users will be $36,000. The average cost of a kilowatt hour is around 12 cents. Therefore, $36,000/12 is **3,000 kilowatt** hours saved.

- *Please describe the current pumping requirements and the types of pumps (e.g., size) currently being used. How would the proposed project impact the current pumping requirements?*

  As previously stated, all energy savings will be from the reduction of on-farm pumping costs. St. John's does not have any pumping facilities.

- *Does the calculation include the energy required to treat the water?*

  Water will be used for irrigation, thus it will be screened, but no further treatment is necessary.

- *Will the project result in reduced vehicle miles driven, in turn reducing carbon emissions? Please provide supporting details and calculations. Describe any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).*

  The project will result in reduced maintenance and operation. The water master will not have to drive the canal alignment as frequently for safety and other inspections. He will not have to "back" the water up in the canal to force the water to rise and travel down a turnout that is higher than the typical flow of the canal. In addition, there would not be a need for burning the canal to eliminate encroaching vegetation. All these activities will reduce carbon emissions.

Evaluation Criterion C: Benefits to Endangered Species

Up to 12 points may be awarded for projects that will benefit federally-recognized candidate species or up to 12 points may be awarded for projects expected to accelerate the recovery of threatened species or endangered species, or addressing designated critical habitat.

Projects that benefit federally-recognized candidate species and federally-listed threatened or endangered species or designated critical habitat will receive additional consideration under this criterion. Please see www.fws.gov/endangered /index.html for a complete listing of federally-recognized candidate species and federally-listed threatened or endangered species in your area.

For projects that will directly benefit federally-recognized candidate species, please include the following elements:

- *What is the relationship of the species to water supply?*

  The Little Malad River drains into the Malad River, which drains into the Bear River and terminates at the Great Salt Lake. Prior to entering the Great Salt Lake, diversions are made to a migratory bird refuge operated by the U.S. Fish and Wildlife Service. Historically, the refuge has had some difficulty in diverting the necessary water supply to maintain a healthy ecosystem, sometimes resulting in outbreaks of disease. Conserving water will allow more water to be available for the Little Malad River. Leaving water in the Bear River system would allow water to be available to those species that rely on the bird refuge. There are two species of birds that are listed as federally recognized candidate species; the Yellow-billed Cuckoo, and the Greater sage-grouse.

  In January 2007, Amy Jenkins from Idaho Association of Soil Conservation Districts published a report call Little Malad Subbasin Water Quality Monitoring Report. In her conclusion, she states, "Water quality impairments were common in the streams we monitored in the Little Malad Subbasin." The proposed pipeline project will encourage farmers to convert from flood irrigation to pressurized farm irrigation. As we know, pressurized farm irrigation better distributes water among the farm and better controls farm runoff that may contain pesticides. The flood irrigation runoff will eventually find a stream that is a tributary to the Little Malad River.

- *What is the extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species?*

  An increased water supply and decreased pollutes would directly lead to an improved habitat for the candidate species and reduce likelihood of disease at the bird refuge.

For projects that will directly accelerate the recovery of threatened or endangered species or address designated critical habitats, please include the following elements:

(1) *How is the species adversely affected by a Reclamation project?*
(2) *Is the species subject to a recovery plan or conservation plan under the Endangered Species Act?*
(3) *What is the extent to which the proposed project would reduce the likelihood of listing or would otherwise improve the status of the species?*

The Arctic Peregrine Falcon is listed as a "Recovery" species. Although a specific recovery plan is not listed, the description of the benefits to the Bear River Migratory Bird Refuge will aid in the recovery of the Arctic Peregrine Falcon.

Evaluation Criterion D: Water Marketing

Up to 12 points may be awarded for projects that propose developing a new water market. Note: Water marketing does not include an entity selling conserved water to an existing customer. This criterion is intended for the situation where an entity that is conserving water uses water marketing to make the conserved water available to meet other existing water supply needs or uses.

Briefly describe any water marketing elements included in the proposed project. Include the following elements:

(1) Estimated amount of water to be marketed.
(2) A detailed description of the mechanism through which water will be marketed (e.g., individual sale, contribution to an existing market, the creation of a new water market, or construction of a recharge facility.
(3) Number of users, types of water use, etc. In the water market.
(4) A description of any legal issues pertaining to water marketing (e.g., restrictions under Reclamation law or contracts, individual project authorities, or State water laws).
(5) Estimated duration of the water market.

State laws prohibit the sale or lease of water rights that are designated for a specific plot of land, unless the land itself is sold and taken out of production. As such, the water conserved will not be available to lease or sell. The conserved water will alleviate current shortages for other water users. The company may have supplemental water rights that may be sold according to state law. Legal counsel will be sought before any water rights are sold or marketed.

Evaluation Criterion E: Other Contributions to Water Supply Sustainability

Up to 14 points may be awarded for projects expected to contribute to a more sustainable water supply. This criterion is intended to provide an opportunity for the applicant to explain 1) how the project relates to a completed WaterSMART Basin Study; 2) how the project could expedite future on-farm improvements; 3) how the project will build resiliency to drought; and/or 4) how the project will provide other benefits to water supply sustainability within the basin. An applicant may receive the maximum 14 points under this criterion based on discussion of one or more of the numbered sections below.

Subcriterion E.1 – Addressing Adaptation Strategies in a WaterSMART Basin Study

Up to 14 points may be awarded for projects that address an adaptation strategy identified in a completed WaterSMART Basin Study.

Proposals that provide a detailed description of how a project is addressing an adaptation strategy specifically identified in a completed Basin Study (i.e., a strategy to mitigate the impacts of water shortages resulting from climate change, drought, increased demands, or other causes) may receive maximum points under this criterion. Applicants should provide as much detail as possible about the relationship of the proposed project to the adaptation strategy identified in the Basin Study, including, but not limited to, the following:

- *Identify the specific WaterSMART Basin Study where this adaptation strategy was developed. Describe in detail the adaptation strategy that will be implemented through this WaterSMART Grant project, and how the proposed WaterSMART Grant project would help implement the adaptation strategy.*
- *Describe how the adaptation strategy and proposed WaterSMART Grant project will address the imbalance between water supply and demand identified by the Basin Study.*
- *Identify the applicant's level of involvement in the Basin Study (e.g., cost-share partner, participating stakeholder, etc.)*
- *Describe whether the project will result in further collaboration among Basin Study partners.*

Through the WaterSMART Basin Study Program, Reclamation is working with State and local partners, as well as other stakeholders, to comprehensively evaluate the ability to meeting future water demands within a river basin. The Basin Studies allow Reclamation and its partners to evaluate potential impacts of climate

change to water resources within a particular river basin, and to identify adaptation strategies to address those impacts. For more information on Basin Studies, please visit: http://www.usbr.gov/WaterSMART/bsp/

This project does not fall within one of the areas that have a completed WaterSMART Basin Study. However, the Bear River Basin is an important river basin that is included in both the Utah and Idaho State Master Plans.

Subcriterion E.2 – Expediting Future On-Farm Irrigation Improvements

Up to 14 points may be awarded for projects that describe in detail how they will directly expedite future on-farm irrigation improvements, including future on-farm improvements that may be eligible for NRCS funding.

If the proposed projects will help expedite future on-farm improvements please address the following:

- *Include a detailed listing of the fields and acreage that may be improved in the future.*

  There are currently 3,500 acres being irrigated. Approximately 1,000 acres are being flood irrigated; these fields would be encouraged to go to pressurized irrigation.

- *Describe in detail the on-farm improvements that can be made as a result of this project. Include discussion of any planned or ongoing efforts by farmers/ranchers that receive water from the applicant.*

  The large scale plan is pipe the entire system. This is a big goal and can only be accomplished in phases. Many of the farms, have and continue to apply for, on-farm grants and loans to improve their fields. The project will encourage this to happen and to convert from flood irrigation to pressurized irrigation.

- *Provide a detailed explanation of how the proposed WaterSMART Grant project would help to expedite such on-farm efficiency improvements.*

  In past projects, many flood irrigators have built improvements and switched to pressurized irrigation and we expect the same with this project.

- *Fully describe the on-farm water conservation or water use efficiency benefits that would result from the enabled on-farm component of this project. Estimate the potential on-farm water savings that could result in acre-feet per year. Include support or backup documentation for any calculations or assumptions.*

  If the current farmers who flood irrigate converted to pressurized irrigation, additional water savings would occur. As previously stated, St. John's full water right is 8,868 AF. If the proposed project was completed, water delivered to on-farm use (assuming full water right used minus losses) would be 5,888 AF. Currently, 1,000 acres of the 3,500 acres being irrigated is flood irrigated. If these flood farmers changed to pressurized irrigation, conservative estimated water savings could be as follows. Using the calculation that pressurized irrigation saves 20% over flood irrigation, the water savings from pressurized irrigation will be calculated as: 5,888 x (1,000/3,500) x .20 = 337 AF.

- *Projects that include significant on-farm irrigation improvements should demonstrate the eligibility, commitment, and number or percentage of shareholders who plan to participate in any available NRCS funding programs. Applicants should provide letters of intent from farmers/ranchers in the affected project areas.*

  On-farm irrigators have not committed to improvements. In past projects, many flood irrigators have built improvements and switched to pressurized irrigation and we expect the same with this project.

- *Describe the extent to which this project complements an existing or newly awarded NRCS funded project.*

  Not Applicable.

Subcriterion E.3 – Building Drought Resiliency

Up to 14 points may be awarded for projects that will build long-term drought resilience in an area affected by drought.

If the proposed project will make water available to alleviate water supply shortages resulting from drought, please address the following:

- *Explain in detail the existing or recent drought conditions in the project area. Describe the severity and duration of drought conditions in the project area. Describe how the water source that is the focus of this project (river, aquifer, or other source of supply) is impacted by drought.*

  The recent drought conditions have been severe. St. John's has not used their full water right in more than 10 years. The water source for Daniels Reservoir is a spring and runoff from nearby mountains. There has not been sufficient mountain runoff for several years, and the last time the reservoir was full was 10 years ago. St. John's did approach Idaho Fish and Game and offered to change the agreement on the minimum pool the company is required to keep in Daniels Reservoir. Idaho Fish and Game said they would not allow the amount to change. This shows how eager St. John's is to obtain additional water.

- *Describe the impacts that are occurring now or are expected to occur as a result of drought conditions. Provide a detailed explanation of how the proposed WaterSMART Grant project will improve the reliability of water supplies during times of drought. For example, will the proposed project prevent the loss of permanent crops and/or minimize economic losses from drought conditions? Will the project improve the reliability of water supplies for people, agriculture, and/or the environment during times of drought? Please note that all proposed projects must meet the project eligibility requirements described in Section III.B. of this FOA. In accordance with those requirements, project proposals requesting compensation for economic losses resulting from drought, and proposals for the purchase of water are <u>not</u> eligible for funding under this program. Please see Section III.B. of this FOA for a detailed description of the types of projects eligible for funding.*

  The proposed project will provide water conservation from seepage, which in turn will lessen the crop loss each year. As previously discussed, many farmers in the spring base how much land they can irrigate by the level of Daniels Reservoir. During many recent drought years, St. John's has not been able to use their entire water right. By water

conservation through the pipeline, St. John's will be able to irrigate more crops and land during the current drought and future drought.

Subcriterion E.4 – Other Water Supply Sustainability Benefits

Up to 10 Points may be awarded for projects that include other benefits to water supply sustainability.

Projects may receive up to 10 points under this sub-criterion by thoroughly explaining additional project benefits, not already described above. Please provide sufficient explanation of the additional expected project benefits and their significance. Additional project benefits may include, but are not limited to, the following:

- *Will the project make water available to address a specific concern? For example:*
  - *Will the project directly address a heightened competition for finite water supplies and over-allocation (e.g., population growth)?*
  - *Describe how the water source that is the focus of this project (river, aquifer, or other source of supply) is impacted by climate variation.*
  - *Will the project help to address an issue that could potentially result in an interruption to the water supply if unresolved?*

The source of the water is Daniels Reservoir. This reservoir is a "trophy" lake according to fish experts. St. John's Irrigating Company has made an agreement with Idaho Fish and Game to keep a percentage of water in Daniels Reservoir for the fish population. St. John's has honored this agreement, but it has been difficult at times due to the finite supply of water in the reservoir. The project will help the finite water resource in Daniels Reservoir by conservation.

- *Will the project make additional water available for Indian tribes?*

Not Applicable.

- *Will the project make water available for rural or economically disadvantaged communities?*

St. John's is a rural community and water conservation will make water available for the shareholders of the company. It has the potential to release more water in the Little Malad Rive, which overall is in the Bear River Basin. In the Bear River Basin there are countless irrigation companies, districts, and users.

- *Does the project promote and encourage collaboration among parties?*
  - *Is there widespread support for the project?*
  - *What is the significance of the collaboration/support?*
  - *Will the project help to prevent a water-related crisis or conflict?*
  - *Is there frequently tension or litigation over water in the basin?*
  - *Is the possibility of future water conservation improvements by other water users enhanced by completion of this project?*

The project will require collaboration from several entities including St. John's Irrigating Company, Oneida County, Reclamation, and the State of Idaho. The St. John's Board of Directors have voted to pursue this funding application. With Idaho being one of the driest states in the country, water conservation projects are widely supported throughout

the state. St. John's board believes it is time to put some money into improving the water system, and the best water conservation option is to pipe the portion of canal proposed in this project. Water conservation is a top priority in the Idaho State Water Plan.

- *Will the project increase awareness of water and/or energy conservation and efficiency efforts?*
  - *Will the project serve as an example of water and/or energy conservation and efficiency within a community?*
  - *Will the project increase the capability of future water conservation or energy efficiency efforts for use by others?*
  - *Does the project integrate water and energy components?*

This project will integrate water conservation and energy efficient measures. The project will conserve a large amount of water that will set an example of water conservation and energy conservation to the local and surrounding communities. As St. John's has followed the example of other companies that have improved their systems to conserve water, other entities will likewise follow the example of St. John's. The reduction in pumping, reduced maintenance and operation costs, and more water conservation is a positive situation for the shareholders, the local community, and the surrounding region.

Evaluation Criterion F: Implementation and Results

Up to 10 points may be awarded for the following:

Subcriterion No. F.1 – Project Planning

Points may be awarded for proposals with planning efforts that provide support for the proposed project.

Does the project have a Water Conservation Plan, System Optimization Review (SOR), and/or district or geographic area drought contingency plans in place? Does the project relate/have a nexus to an adaptation strategy developed as part of a WaterSMART Basin Study)? Please self-certify, or provide copies of these plans where appropriate, to verify that such a plan is in place. Provide the following information regarding project planning:

(1) *Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, Basin Study, drought contingency plan, or other planning efforts done to determine the priority of this project in relation to other potential projects.*

St. John's does not have a Water Conservation Plan. However, this project is in compliance with the Idaho State Water Plan. In order to get a loan from the State of Idaho, a facilities plan is required which includes a section dealing with specific water conservation ideas.

(2) *Describe how the project conforms to and meets the goals of any applicable planning efforts, and identify any aspect of the project that implements a feature of an existing water plan(s).*

A preliminary design has been done by Franson Civil Engineers to be used in the funding acquisition portion of the project. Preliminary pipe size, pipe lengths, estimated costs, and water savings have been determined.

Subcriterion No. F.2 – Readiness to Proceed

Points may be awarded based upon the extent to which the proposed project is capable of proceeding upon entering into a financial assistance agreement.

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

A meeting has been set for Saturday, February 7, 2015 to discuss the project with all of the shareholders. It is anticipated that a loan from the State of Idaho can be secured if Reclamation funding is obtained. Once funding is secured, the design work will begin immediately. A detailed schedule showing major tasks, milestones and dates is shown in Appendix E.

(2) Please explain any permits that will be required, along with the process for obtaining such permits. Identify and describe any engineering or design work performed specifically in support of the proposed project.

An environmental clearance will be required. A stream alteration permit from the State of Idaho will also be required for the modification to the existing diversion structure. Coordination with Oneida County will be needed for a couple of county road crossings.

Subcriterion No. F.3 – Performance Measures

Points may be awarded based on the description and development of performance measures to quantify actual project benefits upon completion of the project.

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved, marketed, or better managed, or energy saved). For more information calculating performance measure, see Section VIII.A.1 "FY2015 WaterSMART Water and Energy Efficiency Grants: Performance Measures."

Meters will be installed on every turnout along the proposed pipeline. Water will be field measured as it flows into the inlet structure and will be field measured as it leaves the outlet structure. Using these three data numbers, water loss can be quantified. Then it can be compared to the expected 60% of water loss that is currently being lost in the project area. Pre-project on-farm pumping usage will be compared to post on-farm pumping to determine the pumping energy conserved after the project is completed.

Subcriterion No. F.4 – Reasonableness of Costs

Points may be awarded based on the reasonableness of the cost for the benefits gained.

Please include information related to the total project cost, annual acre-feet conserved, energy capacity, or other project benefits and the expected life of the improvement(s).

For all projects involving physical improvements, specify the expected life of the improvement in number of years and provide support for the expectation (e.g., manufacturer's guarantee, industry accepted life-expectancy, description of corrosion mitigation for ferrous pipe and fittings, etc.). Failure to provide this information may result in a reduced score for this section.

The cost of the total project is expected to be approximately $2,429,775, with 1,454 acre-feet of water conserved. The water will be placed in PVC pipe, which has a 30 year plus industry accepted life-expectancy. Pumping costs will be lower due to an increase in pressure.

Evaluation Criterion G: Additional Non-Federal Funding

Up to 4 points may be awarded to proposals that provide non-Federal funding in excess of 50 percent of the project costs. State the percentage of non-Federal funding provided.

$$\frac{\text{Non-Federal Funding}}{\text{Total Project Cost}} = \frac{\$1,429,775}{\$2,429,775} = 59\%$$

Evaluation Criterion H: Connection to Reclamation Project Activities

Up to 4 points may be awarded if the proposed project is in a basin with connections to Reclamation project activities. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.

(1) How is the proposed project connected to Reclamation project activities?
(2) Does the applicant receive Reclamation project water?
(3) Is the project on Reclamation project lands or involving Reclamation facilities?
(4) Is the project in the same basin as a Reclamation project or activity?
(5) Will the proposed work contribute water to a basin where a Reclamation project is located?
(6) Will the project help Reclamation meet trust responsibilities to Tribes?

The project has no direct ties to a Reclamation project. However, there are numerous Reclamation projects within the Bear River Basin including, but not limited to: Hyrum Project, Newton Project, Middle Ditch Water Conservation and Renewable Energy Project, West Lewiston Pressurized Irrigation Project, Preston Bench Project, Richmond Water Conservation and Renewable Energy Project, and the Preston-Whitney Interconnect Project.

PERFORMANCE MEASURES

All WaterSMART Grant applicants are required to propose a method (or "performance measure") of quantifying the actual benefits of their project once it is completed. Actual benefits are defined as water actually conserved, marketed, or better managed, as a direct result of the project. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of WaterSMART Grants.

1. Environmental and Cultural Resources Compliance

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. Additional information about environmental compliance is provided in Section IV.D.4. "Project Budget," under the discussion of "Environmental and Regulatory Compliance Costs," and in Section VIII.B., "Overview of Environmental and Cultural Resources Compliance Requirements."

1) *Will the project impact the surrounding environment (i.e. soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.*

   The proposed alignment will be in the canal and through farmer's fields. There will be minimal, short-term impacts associated with installing the pipe and inlet/outlet structures. All land surface disturbances will be confined to the proposed pipe alignment area and small staging areas adjacent to the pipeline. Contract documents will outline the responsibility of the contractor relative to dust control, air and water pollution during construction activities. Minimal environmental disturbance is anticipated and all work will be performed in previously disturbed areas.

2) *Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*

   There is one mammal listed as being present in Oneida County that is known to be on the Federal threatened or endangered species, or designated in a critical habitat, which is the Grey Wolf, and the website indicates that the Gray Wolf has been delisted in Idaho. The proposed project will have no negative effects on plants or animals listed.

3) *Are there wetlands or other surface water inside the project boundaries that potentially fall under CWA jurisdiction as "waters of the United States?" If so, please describe and estimate any impacts the project may have.*

   The National Wetlands Inventory has been searched and there will be no construction within wetland areas. There are no anticipated impacts to wetlands or surface water that falls under CWA jurisdiction as "waters of the United States."

4) *When was the water delivery system constructed?*

It is unknown exactly when the St. John's distribution system was constructed, but the associated water rights have a priority date as early as 1877. The canal was likely constructed shortly thereafter.

5) *Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.*

In the project area, the open canal will be replaced with a pressurized pipe. All head gates, flumes and other features in this area will be replaced or abandoned.

6) *Are any buildings, structures, or features in the irrigation Company listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.*

There are no known archeological sites in the area.

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

There are no known archeological sites in the area.

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

The project will not adversely affect low income or minority populations.

9) *Will the project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?*

The project will not affect tribal lands.

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

The project will decrease the spread of weeds and noxious weeds due to the open canal being converted to a pipeline.

2. Required Permits or Approvals

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

Applicants proposing renewable energy components to Federal facilities should note that some power projects may require FERC permitting or a Reclamation Lease of Power Privilege. To complete a renewable energy project within the time frame required of this FOA, it is recommended that an applicant has commenced the necessary permitting process prior to applying. To discuss questions related to projects that propose renewable energy development, please contact Mr. Josh German at 303-445-2839 or jgerman@usbr.gov.

Note that improvements to Federal facilities that are implemented through any project awarded funding through this FOA must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see Section III.H1. Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 CFR 429, and that the development will not impact or impair project operations or efficiency.

A county permit will be necessary to cross the county road a couple of times. A stream alteration permit from the State of Idaho will also be required for modifications to the existing diversion structure. The permits are not expected to have any major issues and should be relatively easy to obtain.

3. Official Resolution

Include an official resolution adopted by the applicant's board of directors or governing body, or for state government entities, an official authorized to commit the applicant to the financial and legal obligations associated with receipt of WaterSMART Grant financial assistance, verifying:

- *The identity of the official with legal authority to enter into agreement*
- *The board of directors, governing body, or appropriate official who has reviewed and supports the application submitted*
- *The capability of the applicant to provide the amount of funding and/or in-kind contributions specified in the funding plan*

An official resolution meeting set forth above is mandatory. *If the applicant is unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted up to 30 days after the application deadline.*

A signed official resolution by St. John's Irrigating Company is included in Appendix A.

4. Project Budget

Funding Plan and Letters of Commitment

Describe how the non-Reclamation share of project costs will be obtained. Reclamation will use this information in making a determination of financial capability.

Project funding provided by a source other than the applicant shall be supported with letters of commitment from these additional sources. This is a mandatory requirement. Letters of commitment shall identify the following elements:

(1) The amount of funding commitment
(2) The date the funds will be available to the applicant
(3) Any time constraints on the availability of funds
(4) Any other contingencies associated with the funding commitment

Commitment letters from third party funding sources should be submitted with your project application. If commitment letters are not available at the time of the application submission, please provide a timeline

for submission of all commitment letters. Cost share funding from sources outside the applicant's organization (e.g., loans or state grants), should be secured and available to the applicant prior to award.

Reclamation will not make funds available for a WaterSMART Grants project until the recipient has secured non-Federal cost-share. Reclamation will execute a financial assistance agreement once non-Federal funding has been secured or Reclamation determines that there is sufficient evidence and likelihood that non-Federal funds will be available to the applicant subsequent to executing the agreement.

Obtaining a loan from the State of Idaho has begun. The first step in the process is to send a Notice of Intent letter with regards to funding. This letter has been submitted to the Idaho Department of Environmental Quality. The State of Idaho funding process is to receive the Notice of Intent letters at the first of the year, then prioritize these requests. The formal adoption of the funding for the State of Idaho will take place on May 21, 2015. Reclamation will be notified of any funding updates we are able to obtain and secure on May 21, 2015, if funding is in place. Once funding is in place, Reclamation will be notified.

The funding plan must include all project costs, as follows:

(1) How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).

The total cost of the project is $2,429,775. St. John's Irrigating Company has applied/sent a letter of intent for a loan from the Idaho Department of Environmental Quality for $1,429,775. The loan will be repaid by assessments to the water users. If the $1,000,000 grant requested by this application is not approved, it is unlikely that this project will be implemented. St. John's Irrigating Company cannot afford to borrow all the money for the project. If a grant is awarded, St. John's Irrigating Company will likely be in a position to finalize the loan from the State of Idaho.

(2) Describe any in-kind costs incurred before the anticipated project start date that you seek to include as project costs. Include:

St. John's has paid for engineering costs associated with preliminary design and funding procurement. Time for meetings, site visits, and helping complete the application has also been an in-kind cost.

(3) What project expenses have been incurred

(a) How they benefitted the project

These costs allowed the company to plan for the future and explore funding options. St. John's must prepare for the future.

(b) The amount of the expense

The company agreed to a contract for $3,000 for the funding applications for the preliminary analysis and to complete the funding applications to Reclamation and Idaho.

(c) The date of cost incurrence

Costs have been incurred between November 2014 and January 2015.

(4) Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.

Idaho Department of Environmental Quality. There are no commitment letters in place from the funding agency because it has not been awarded.

(5) Describe any funding requested or received from other Federal partners. Note: other sources of Federal funding may not be counted towards your 50 percent cost share unless otherwise allowed by statute.

No other Federal funding agencies have been requested to provide funds for this project.

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

If funds are not secured from Reclamation or Idaho, it is expected the project will not move forward.

Please include the following chart to summarize your non-Federal and other Federal funding sources. Denote in-kind contributions with an asterisk (*). Please ensure that the total Federal funding (Reclamation and all other Federal sources) does not exceed 50 percent of the total estimated project cost.

Table 2: Summary of non-Federal and Federal funding sources

Funding Sources	Funding Amount
Non-Federal Entities	
1. Idaho Department of Environmental Quality	$1,429,775
Non-Federal Subtotal:	$1,429,775
Other Federal Entities	
1. N/A	
Other Federal Subtotal:	$0
Requested Reclamation Funding:	$1,000,000
Total Project Funding:	**$2,429,775**

For applicants submitting a proposal under Funding Group II, please include the following chart to summarize your Federal funding request by year.

Table 3: Funding Group II Funding Request

Funding Group II Request			
	Year 1 (FY 2015)	Year 2 (FY 2016)	Year 3 (FY 2017)
Funding Requested	$500,000	$500,000	

Budget Proposal

The project budget shall include detailed information on the categories listed below and must clearly identify all project costs. Unit costs shall be provided for all budget items including the cost of work to be provided by contractors. Additionally, applicants shall include a narrative description of the items included in the project budget, including the value of in-kind contributions of goods and services provided to complete the project. It is strongly advised that applicants use the budget proposal format shown below on tables 3 and 4 or a similar format that provides this information. If selected for award, successful applicants must submit detailed supporting documentation for all budgeted costs.

Table 4: Project Budget

Budget Item Description	Computation		Quantity Type	Total Cost
	$/Unit	Quantity		
Legal Services	$150/hr	100	Hours	$15,000
Environmental Services	$100/hr	100	Hours	$10,000
Engineering Services	See Appendix B			$113,000
Construction Management	See Appendix B			$87,000
Construction Contract	See Appendix C			$2,194,775
Reclamation Reporting	$100/hr	100	Hours	$10,000
Total Project Costs				**$2,429,775**

Budget Narrative

Submission of a budget narrative is mandatory. An award will not be made to any applicant who fails to fully disclose this information. The budget narrative provides a discussion of, or explanation for, items included in the budget proposal. Include the value of in-kind contributions of goods and services and sources of funds provided to complete the project. The types of information to describe in the narrative include, but are not limited, to those listed in the following subsections.

St. John's Irrigating Company board members and employees will not earn a salary, wages, fringe benefits or reimbursements from funding obtained to implement this project. All contributions by St. John's board members and employees will be volunteered or funded by the company's general fund and be in-kind contributions to the project.

All funding secured from Reclamation and the State of Idaho will be used to pay contractual agreements from implementing the project, including the construction contract and fees for legal, engineering, and environmental services as described below.

Equipment

Itemize costs of all equipment having a value of over $5,000 and include information as to the need for this equipment, as well as how the equipment was priced if being purchased for the agreement. If equipment is being rented, specify the number of hours and the hourly rate. Local rental rates are only accepted for equipment actually being rented or leased for the project. If equipment currently owned by the applicant is proposed for use under the proposed project, and the cost to use that equipment is being included in the budget as in-kind cost share, provide the rates and hours for each piece of equipment owned and budgeted. These should be ownership rates developed by the recipient for each piece of

equipment. If these rates are not available, the U.S. Army Corp of Engineer's recommended equipment rates for the region are acceptable. Blue book, Federal Emergency Management Agency (FEMA), and other data bases should not be used.

Not Applicable.

Materials and Supplies

Itemize supplies by major category, unit price, quantity, and purpose, such as whether the items are needed for office use, research, or construction. Identify how these costs were estimated (i.e., quotes, past experience, engineering estimates or other methodology).

Not Applicable.

Contractual

Identify all work that will be accomplished by subrecipients, consultants, or contractors, including a breakdown of all tasks to be completed, and a detailed budget estimate of time, rates, supplies, and materials that will be required for each task. If a subrecipient, consultant, or contractor is proposed and approved at time of award, no other approvals will be required. Any changes or additions will require a request for approval. Identify how the budgeted costs for subrecipients, consultants, or contractors were determined to be fair and reasonable.

All funding for the project will be used to pay consultants and construction contractors and subcontractors. These include legal services, engineering services, environmental services, and construction services. Detailed tasks to be completed, estimated time, rates, supplies, and materials for each task is outlined in the Appendix as follows:

1. Appendix B – Engineering Services
2. Appendix C – Construction Services
3. Appendix D – Environmental Services

Environmental and Regulatory Compliance Costs

Applicants must include a line item in their budget to cover environmental compliance costs. "Environmental compliance costs" refer to costs incurred by Reclamation or the recipient in complying with environmental regulations applicable to a WaterSMART Grant, including costs associated with any required documentation of environmental compliance, analyses, permits, or approvals. Applicable Federal environmental laws could include NEPA, ESA, NHPA, and the CWA, and other regulations depending on the project. Such costs may include, but are not limited to:

- *The cost incurred by Reclamation to determine the level of environmental compliance required for the project*
- *The cost incurred by Reclamation, the recipient, or a consultant to prepare any necessary environmental compliance documents or reports*
- *The cost incurred by Reclamation to review any environmental compliance documents prepared by a consultant*
- *The cost incurred by the recipient in acquiring any required approvals or permits, or in implementing any required mitigation measures*

The amount of the line item should be based on the actual expected environmental compliance costs for the project. However, the minimum amount budgeted for environmental compliance should be equal to at

least 1-2 percent of the total project costs. If the amount budgeted is less than 1-2 percent of the total project costs, you must include a compelling explanation of why less than 1-2 percent was budgeted.

How environmental compliance activities will be performed (e.g., by Reclamation, the applicant, or a consultant) and how the environmental compliance funds will be spent, will be determined pursuant to subsequent agreement between Reclamation and the applicant. If any portion of the funds budgeted for environmental compliance is not required for compliance activities, such funds may be reallocated to the project, if appropriate.

The environmental costs are shown in Appendix D.

Reporting

Recipients are required to report on the status of their project on a regular basis. Failure to comply with reporting requirements may result in the recipient being removed from consideration for funding under future funding opportunities. Include a line item for reporting costs (including final project and evaluation costs). Please see Section VI. E. 2 "Program Performance Reports". for information on types and frequency of reports required.

A total of $10,000 was budgeted for coordination with Reclamation. This amount would include the costs to create a final construction report and finalize repayment agreements, quarterly construction reports, annual project performance reports, and to coordinate requests for reimbursement. This work will be performed by the consulting engineering firm selected to design the system.

Other

Any other expenses not included in the above categories shall be listed in this category, along with a description of the item and what it will be used for. No profit or fee will be allowed.

Not Applicable.

Indirect Costs

Show the proposed rate, cost base, and proposed amount for allowable indirect costs based on the applicable OMB circular cost principles (see Section III.E., "Cost Sharing Requirement") for the recipient's organization. It is not acceptable to simply incorporate indirect rates within other direct cost line items.

If the recipient has separate rates for recovery of labor overhead and general and administrative costs, each rate shall be shown. The applicant should propose rates for evaluation purposes, which will be used as fixed or ceiling rates in any resulting award. Include a copy of any federally approved indirect cost rate agreement. If a federally approved indirect rate agreement is not available, provide supporting documentation for the rate. This can include a recent recommendation by a qualified certified public accountant (CPA) along with support for the rate calculation.

If you do not have a federally approved indirect cost rate agreement, or if unapproved rates are used, explain why, and include the computational basis for the indirect expense pool and corresponding allocation base for each rate. Information on "Preparing and Submitting Indirect Cost Proposals" is available from Interior, the National Business Center, and Indirect Cost Services, at www.doi.gov/ibc/services/Indirect_Cost_Services/index.cfm.

Not Applicable.

Total Costs

Indicate total amount of project costs, including the Federal and non-Federal cost-share amounts.

The estimated total project cost is $2,429,775.

Budget Form

In addition to the above-described budget information, the applicant must complete an SF-424A, Budget Information—Nonconstruction Programs, or an SF-424C, Budget Information—Construction Programs. These forms are available at <http://apply07.grants.gov/apply/FormLinks?family=15>.

Forms SF-424C and SF-424D are enclosed with the application for federal assistance SF-424.

Appendix A
Signed Official Resolution

OFFICIAL RESOLUTION
OF THE
ST. JOHN'S IRRIGATION DISTRICT

RESOLUTION NO. 2015 - 1

WHEREAS, the United States Department of the Interior, Bureau of Reclamation has announced the *WaterSMART Water and Energy Efficiency Grants* in order to prevent water supply crises and ease conflict in the western United States, and has requested proposals from eligible entities to be included in the WaterSMART Program, and

WHEREAS, the St. John's Irrigation District has need for funding to complete an irrigation project that will enclose a portion of their canal. The project is intended to conserve water, conserve energy, and efficiently deliver water to its shareholders.

NOW, THEREFORE, BE IT RESOLVED that the St. John's Irrigation District Board of Directors agrees and authorizes that

1. The St. John's Irrigation District has reviewed and supports the proposal submitted;

2. The applicant is capable of providing the amount of funding and/or in-kind contributions, specified in the funding plan; and

3. If selected for a WaterSMART Grant, the applicant will work with Reclamation to meet established deadlines for entering into a cooperative agreement.

DATED: 1-12-15

Ron Blaisdell Pres.
Ron Blaisdell
President, St. John's Irrigation District

ATTEST:

Lane Peirce, P.E.
Project Manager, Franson Civil Engineers

Appendix B

Probable Cost for Engineering Services

(Engineering Design and Construction Management)

St. John's Irrigation District

Probable Cost Opinion for Engineering Services

(Rate Table Attached)

Task Description	Hours By Personnel Category							Total Hours	Total Labor Charges	Other Direct Costs	Total Fee
	1	2	3	4	7	14	15				
	Principal	Project Manager	Senior Engineer	Staff Engineer	Designer	Office Assistant	Clerk				
Phase 1 - Project Management & Coordination											
Task 1. General Project Management Tasks	5	10				5		20	$2,425	$50	$2,475
Task 2. Client Coordination Meetings	5	5		10				20	$2,470	$100	$2,570
Task 3. Environmental Coordination	5	5		10		5		25	$2,755	$50	$2,805
Task 4. Coordination with Division of Water Resources	5	5				5		15	$1,745	$100	$1,845
Task 5. Coordination with Shareholders	5	5						10	$1,460	$50	$1,510
Task 6. Permits Acquisitions (Stream Alteration)	5	5		10	10	5		35	$3,685	$500	$4,185
Task 7. Loan Closing & Legal Coordination	5	5				5		15	$1,745	$150	$1,895
SUBTOTAL	**35**	**40**	**0**	**30**	**10**	**25**	**0**	**140**	**$16,285**	**$1,000**	**$17,285**
Phase 2 - Engineering Design											
Task 1. Design Team Management	5	20	10	15	5	10		65	$7,210	$100	$7,310
Task 2. Site Visits/Surveying		15	10	15	10			50	$5,645	$1,500	$7,145
Task 3. Design Criteria Contract	5	10	10	10		5		40	$4,595	$65	$4,660
Task 4. Coordination with Client & Shareholders	5	25	5	30		10		75	$8,360	$0	$8,360
Task 5. Hydraulic Analysis and Model	5	10	5	30	15			65	$7,145	$0	$7,145
Task 6. Air-Valves Sizing	5	5	5	15				30	$3,555	$0	$3,555
Task 7. Inlet Structure Design (Trash Rack, Sediment)	5	5	5	25				40	$4,565	$0	$4,565
Task 8. Road Crossing Design and Coordination	5	5	5	20				35	$4,060	$0	$4,060
Task 9. Construction Drawings Draft	5	10	10	30	100	10		165	$16,200	$800	$17,000
Task 10. Construction Drawings Final	5	10	10	30	100	10		165	$16,200	$800	$17,000
Task 11. Construction Specifications	5	10	15	25		10		65	$6,975	$800	$7,775
Task 12. Bid & Award Coordination	5	15	15	10		10	10	65	$6,650	$1,000	$7,650
SUBTOTAL	**55**	**140**	**105**	**255**	**230**	**65**	**10**	**860**	**$91,160**	**$5,065**	**$96,225**
Phase 3 - Construction Management											
Task 1. Construction Team Management	40	25		30		5		100	$12,955	$0	$12,955
Task 2. On-Site Observation and Documentation		15		400				415	$42,440	$2,000	$44,440
Task 3. Submittal Reviews		5		20				25	$2,700	$500	$3,200
Task 4. Contractor Coordination		15		80				95	$10,120	$0	$10,120
Task 5. Record Drawings Preparation	5	5		20	20	30		80	$7,050	$400	$7,450
Task 6. O&M Manual	5	5		20	15	5	10	60	$5,670	$370	$6,040
Task 7. Project Closeout		5		10		15	5	35	$2,800	$0	$2,800
SUBTOTAL	**50**	**75**	**0**	**580**	**35**	**55**	**15**	**810**	**$83,735**	**$3,270**	**$87,005**
Project Totals	**140**	**255**	**105**	**865**	**275**	**145**	**25**	**1,810**	**$191,180**	**$9,335**	**$200,515**

FRANSON CIVIL ENGINEERS
FEE SCHEDULE – 2015

This Fee Schedule applies to services rendered during the current year. A new Schedule will be issued at the beginning of each year. These fees include overhead and profit.

Personnel

Classification	2015
Principal	$160
Senior Manager	$140
Senior Engineer	$120
Senior Field Manager	$116
Staff Engineer	$104
Senior Designer	$96
Engineer I	$89
Reports Writer/Editor	$88
Designer	$87
Engineering Assistant	$83
Engineering Intern	$72
Office Assistant	$59
Clerk	$53

Expenses

Expenses incurred for the project will be invoiced at direct cost. Standard rates for selected common direct expenses are as follows:

	2015
Mileage (IRS mileage rate + $0.10)	$0.68/mile
Copy/Print – 8.5x11	$0.04/page
Copies – 11x17	$0.08/page
Color Copy/Print	$0.25/page
Oversize copies/prints	$1.00/sq. ft.

Appendix C

Probable Cost for Construction Services

ITEM	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
St. Johns Canal Enclosure					
1	Mobilization	1	EA	$40,000.00	$40,000
2	30" PVC C905	21,120	LF	$50.00	$1,056,000
3	24" PVC C905	10,560	LF	$40.00	$422,400
4	20" PVC C905	5,280	LF	$27.00	$142,600
5	Inlet Structure	1	EA	$40,000.00	$40,000
6	Outlet Structure	1	EA	$10,000.00	$10,000
7	Service Lateral with Meters	25	EA	$7,000.00	$175,000
8	3" Air Valves	5	EA	$4,000.00	$20,000
9	Asphalt	500	SF	$5.00	$2,500
				Subtotal	$1,908,500
				15% Contingency	$286,275
				Total	**$2,194,775**
Professional Expenses					
10	Engineering				$200,000
11	Legal				$15,000
12	Environmental				$10,000
13	Reclamation Reporting				$10,000
				Total	**$2,429,775**

Appendix D

Probable Cost for Environmental Services

(Environmental and Cultural Resources Compliance)

St John's Irrigating District

Probable Cost Estimate for Environmental Services

ITEM DESCRIPTION	HOURS	UNIT COST	TOTAL COST
Fieldwork - Archaeological Inventory			
Project Manager	50	$70.00	$3,500
Staff Archaeologist	55	$60.00	$3,300
		Subtotal	**$6,800**
Report Production, Site Forms & Maps			
Principal Investigator	50	$75.00	$3,750
Staff Archaeologist	55	$60.00	$3,300
		Subtotal	**$7,050**
Direct Costs			
SHPO - Division of State History File Search	1	$130.00	$130
Mileage	600	$0.56	$336
Field Equipment	15	$50.00	$750
Reproduction and Postage	4	$25.00	$100
		Subtotal	**$1,316**
		Total	**$15,166**

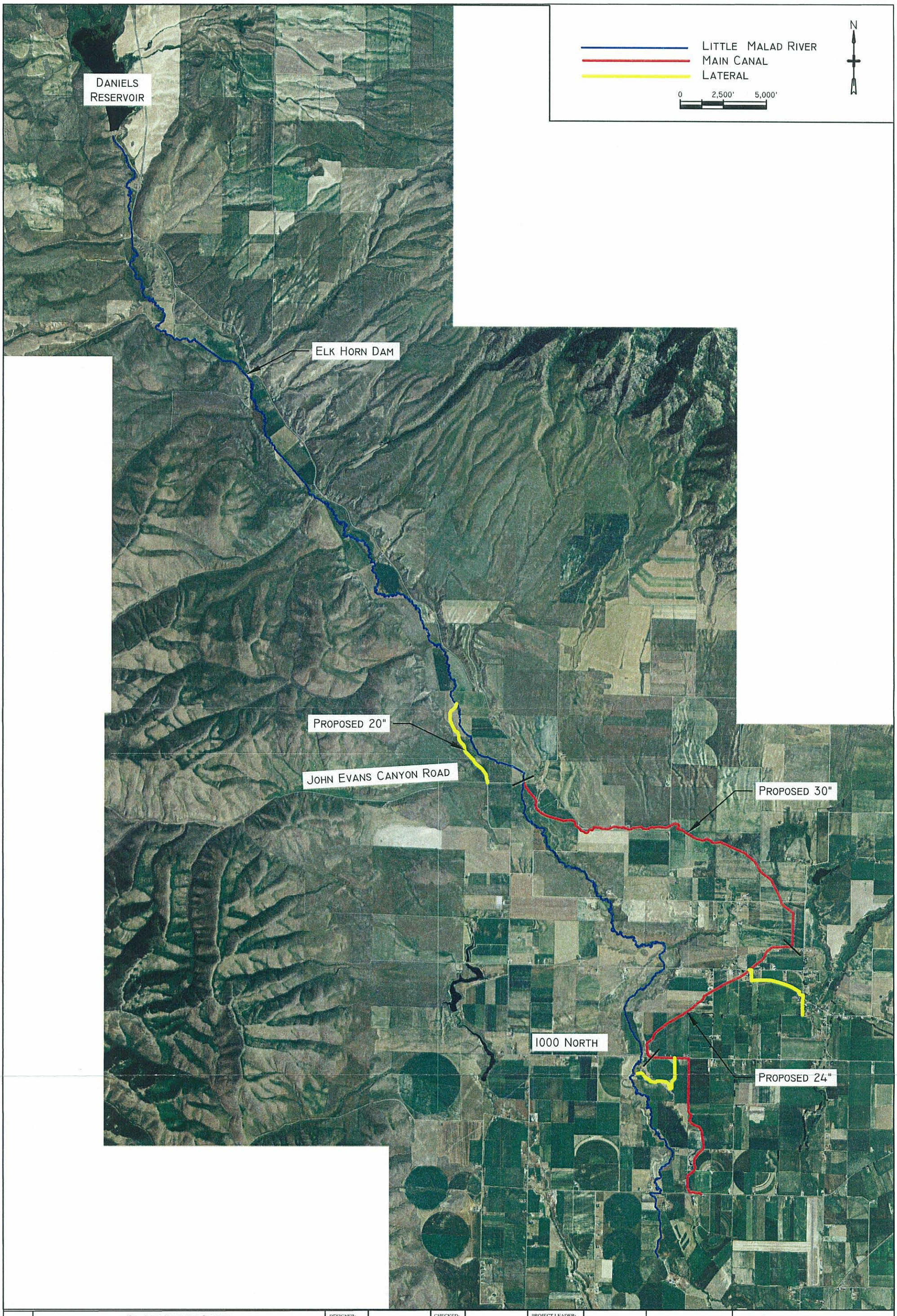
Appendix E
Proposed Schedule

St. John's Irrigation District

PROJECT SCHEDULE

Phase	2015 SEP	OCT	NOV	DEC	2016 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2017 JAN	FEB	MAR	APR	MAY
Irrigation Season (No Construction)																					
Contract Signed with Reclamation																					
Apply and Obtain Loan from ID Dep. Of Resources																					
Phase 1 - PM and Preliminary Work																					
General Project Management Tasks																					
Client Coordination Meetings																					
Environmental Coordination																					
Coordination with Division of Water Resources																					
Shareholders Coord. and Preliminary Analysis																					
Permits Acquisitions																					
Loan Closing & Legal Coordination																					
Phase 2 - Engineering Design							Phase 1														
Design Team Management																					
Site Visits/Surveying																					
Design Criteria Contract																					
Coordination with Client & Shareholders																					
Hydraulic Analysis																					
Air-Valves Sizing																					
Inlet Structure Design (Trash Rack, Sediment)																					
Road Crossing Design and Coordination																					
Construction Drawings Draft																					
Construction Drawings Final																					
Construction Specifications																					
Bid & Award Coordination																					
Phase 3 - Construction Management														Phase 1							
Construction Management																					
Construction Services for Phase 1																					
Record Drawings																					
O&M Manual																					

Appendix F
Proposed Pipeline System



ST. JOHNS IRRIGATING COMPANY

OVERALL SYSTEM MAP

JOB NO.	System Map.dwg
JOB NUMBER	\\Franson\Data\CLIENT\7-Western US Area\Idaho\St. John's Irrigation District\Drawings
	LAYOUT: Overall

DESIGNER:		CHECKED:		PROJECT LEADER:	
DRAFTSMAN:		REVIEWED:		PRINT DATE:	JAN. 14, 2015

REVISIONS

NO.	DATE	INITS.	DESCRIPTION

SHEET 1 OF 4

FRANSON CIVIL ENGINEERS
1276 South 820 East, Suite 100
American Fork, UT 84003
T 801 756-0309 F 801 756-0481

Appendix G
Water Savings Calculation

Water Savings Calculation
Factors
Total Water Right (Volume) 8868 AF
90% of volume in main canals
10% of volume in laterals
Length of main canals is 22.5 miles
Length of laterals 2.5 miles
Length of main canal to be piped is 6 miles
Length of lateral to be piped is 1 mile
Equations
8868 AF x .90 x .60 x (6/22.5)= **1277 AF**
8868 AF x .90 x .60 x (1/2.5)= **177 AF**
1277 AF + 177 AF = **1454 AF**