

RECLAMATION

Managing Water in the West

St. John Canal Enclosure Project Final Environmental Assessment

PRO-EA-16-005

**Upper Colorado Region
Provo Area Office
Provo, Utah**



**U.S. Department of the Interior
Bureau of Reclamation
Provo Area Office
Provo, Utah**

September 2016

Mission Statements

The mission of the Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

St. John Canal Enclosure Project Final Environmental Assessment

Upper Colorado Region
Provo Area Office
Provo, Utah

Interdisciplinary Team Lead:

*Peter L. Crookston
Bureau of Reclamation
Provo Area Office
302 East 1860 South
Provo, Utah 84606*



U.S. Department of the Interior
Bureau of Reclamation
Provo Area Office
Provo, Utah

September 2016

Contents

	Page
Chapter 1: Purpose of and Need for Proposed Action	1
1.1 Introduction.....	1
1.2 Background.....	1
1.3 Purpose of and Need for Proposed Action.....	3
1.4 Public Scoping and Involvement	4
1.5 Permits and Authorizations.....	4
1.6 Scope of Analysis	5
Chapter 2: Alternatives	6
2.1 Introduction.....	6
2.2 No Action.....	6
2.3 Proposed Action (Preferred)	6
2.3.1 Canal Enclosure	6
2.3.2 Turnouts	6
2.3.3 Rights-of-Way.....	8
2.3.4 Road Crossings	8
2.3.5 River Crossings.....	8
2.3.6 Saved Water	8
2.3.7 Construction Schedule and Canal Operation During Construction ..	8
2.3.8 Pipeline Construction Procedures	9
2.3.8.1 Construction Sequence.....	9
2.3.8.2 Excavate and Grade Pipeline Alignment	9
2.3.8.3 Pipeline Installation	9
2.3.8.4 Road Crossings	9
2.3.8.5 Stream Crossings	9
2.3.8.6 Quality Control Procedures.....	10
2.3.8.7 Construction Staging Areas	10
2.3.8.8 Operation and Maintenance	10
2.3.8.9 Standard Operating Procedures.....	10
2.4 Alternatives Considered and Eliminated from Further Study.....	10
2.4.1 Membrane Lining.....	10
2.4.2 Gravity Pipeline	11
2.5 Comparison of Alternatives	11
2.6 Minimization Measures Incorporated into the Proposed Action	12
Chapter 3: Affected Environment and Environmental Consequences.....	13
3.1 Introduction.....	13
3.2 Resources Considered and Eliminated from Further Analysis	13
3.3 Affected Environment and Environmental Consequences	14

3.3.1	Geology and Soils Resources.....	14
3.3.1.1	No Action.....	15
3.3.1.2	Proposed Action.....	15
3.3.2	Visual Resources.....	15
3.3.2.1	No Action.....	15
3.3.2.2	Proposed Action.....	15
3.3.3	Cultural Resources.....	15
3.3.3.1	No Action.....	16
3.3.3.2	Proposed Action.....	16
3.3.4	Hydrology.....	16
3.3.4.1	No Action.....	17
3.3.4.2	Proposed Action.....	17
3.3.5	Water Quality.....	17
3.3.5.1	No Action.....	18
3.3.5.2	Proposed Action.....	18
3.3.6	Health, Safety, Air Quality, Noise.....	18
3.3.6.1	No Action.....	18
3.3.6.2	Proposed Action.....	18
3.3.7	Wetlands, Riparian, Vegetation, and Noxious Weeds.....	18
3.3.7.1	Wetlands.....	18
3.3.7.2	Riparian.....	18
3.3.7.3	Vegetation.....	19
3.3.7.4	Noxious Weeds.....	20
3.3.7.5	No Action.....	21
3.3.7.6	Proposed Action.....	21
3.3.8	Wildlife Resources (Fish, Small Mammals, Raptors, Migratory and Other Birds, Big Game).....	21
3.3.8.1	Fish.....	22
3.3.8.2	Small Mammals.....	22
3.3.8.3	Raptors.....	22
3.3.8.4	Migratory and Other Birds.....	22
3.3.8.5	Big Game.....	22
3.3.8.6	No Action.....	23
3.3.8.7	Proposed Action.....	23
3.3.9	Threatened, Endangered, and Sensitive Species.....	24
3.3.9.1	No Action.....	24
3.3.9.2	Proposed Action.....	24
3.3.10	Socioeconomics.....	24
3.3.10.1	No Action.....	24
3.3.10.2	Proposed Action.....	24
3.3.11	Flood Control.....	25
3.3.11.1	No Action.....	25
3.3.11.2	Proposed Action.....	25
3.4	Indian Trust Assets.....	25
3.5	Environmental Justice.....	25
3.6	Cumulative Effects.....	26

Chapter 4: Environmental Commitments	28
4.1 Environmental Commitments	28
Chapter 5: Consultation and Coordination.....	32
5.1 Introduction.....	32
5.2 Public Involvement	32
5.3 Native American Consultation.....	33
5.4 Idaho Geological Survey.....	33
5.5 Idaho State Historic Preservation Office	33
Chapter 6: Preparers	34
Chapter 7: Acronyms and Abbreviations.....	35
Chapter 8: References	36
Appendix 1.....	37

Chapter 1: Purpose of and Need for Proposed Action

1.1 Introduction

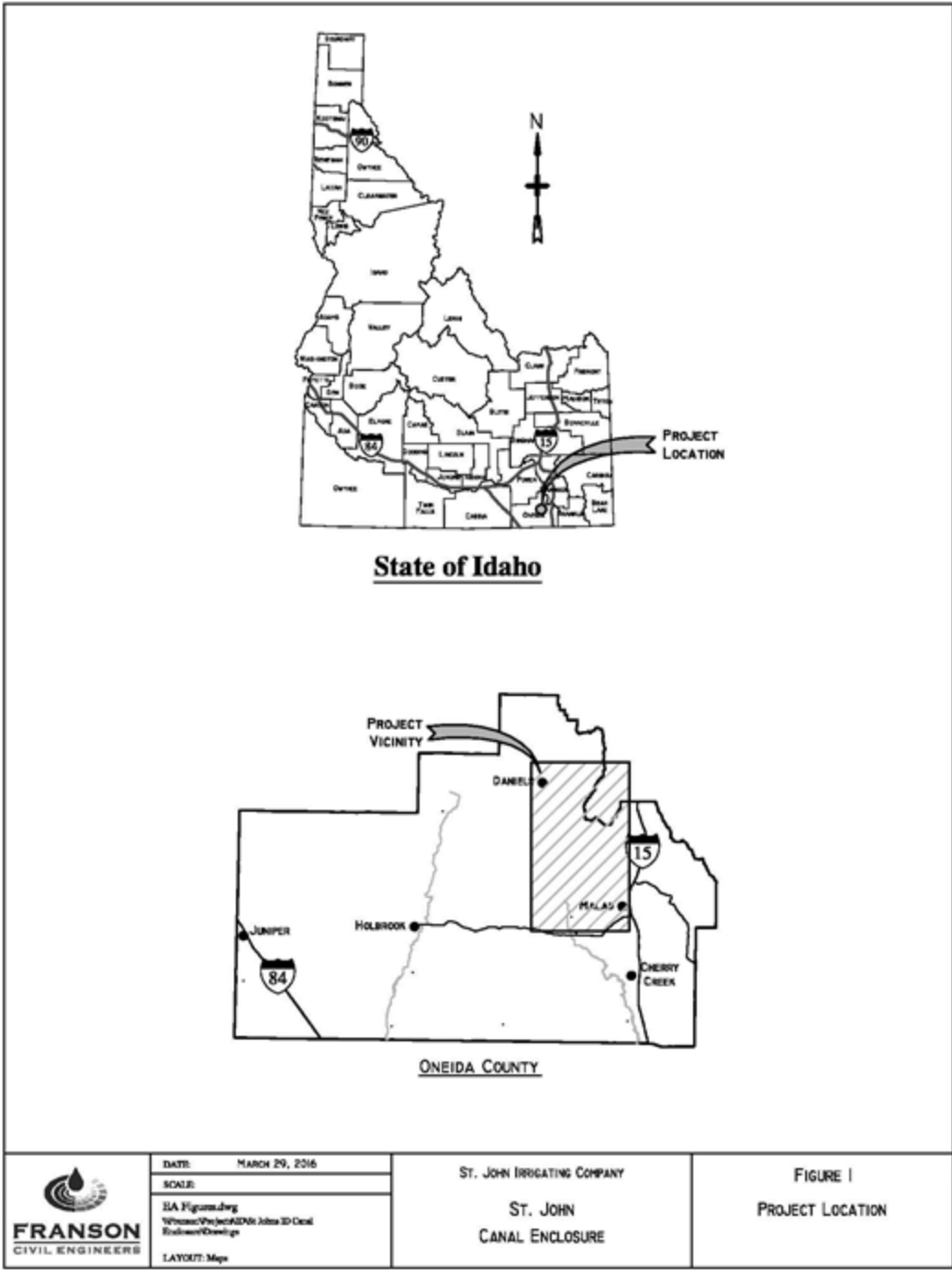
This Environmental Assessment (EA) is prepared to examine the potential environmental impacts of the St. John Canal Enclosure Project (Project), proposed by the St. John Irrigating Company (Company) in Oneida County, Idaho. If approved, the Project would divert water from the Little Malad River (below Daniel's Reservoir) into approximately seven miles of pipeline that would be installed to replace portions of the Company's canal system. The pipeline alignment would follow canal and road rights-of-way and cross agricultural fields. The majority of the existing canal would be abandoned due to the canal piping.

This EA evaluates the potential effects of the No Action and Proposed Action Alternatives in order to determine whether they would cause significant impacts to the human or natural environment, as defined by the National Environmental Policy Act (NEPA). If the EA shows no significant impacts associated with implementation of the Proposed Action, then a Finding of No Significant Impact (FONSI) will be issued by the Bureau of Reclamation. Otherwise, an Environmental Impact Statement will be necessary prior to implementation of the Proposed Action. Compliance with NEPA is required for this Project because funding from Reclamation's Federal WaterSMART Program would be used to complete the Project.

1.2 Background

The Project area is located west of Malad, Idaho as shown on the Project location map (Figure 1). The area is comprised of agricultural farmlands that have been irrigated for many years. The majority of the lands are public lands with rights-of-way held by the Company. The remaining land is private property, of which easements are being obtained. The elevation within the Project area ranges from 4850 feet above sea level at the northern end of the Project area, to 4600 feet above sea level at the southern end.

The Company is a private company that provides water to a few residential users and to agricultural users which use water to irrigate 3,500 acres in Oneida County. The primary crop irrigated is hard red winter wheat with other farmers growing barley and hay.



Built in 1967 by the Bureau of Reclamation, Daniel's Reservoir stores water from a natural spring and runoff from nearby mountains. Drought conditions have been severe with a scarce water supply for more than 10 years. In an effort to obtain more water, the Company approached Idaho Fish and Game IFG to request a reduction in the minimum pool requirement. This request was denied as the reservoir is considered a "trophy" lake according to fish experts.

Two main problems with the current canal system are high water loss from seepage and evaporation and soil erosion. It is estimated that 50 percent 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 the Company to use its full water right. Many years, the growing season ends early because water is not available to be released from Daniels Reservoir and farmers are forced to harvest what has grown. Conserved water would help extend the growing season and harvest higher crop yield.

The Company has water rights to divert 8,868 acre-feet annually. In dry years, Daniels Reservoir has not reached a water storage sufficient enough to allow the Company to divert its full water right.

Based on irrigation demands, water is released from the Daniels Reservoir into the Little Malad River and then diverted into the Company's irrigation canal system. The length of the entire delivery system is as follows: Little Malad River – 10 miles, Main Canal – 10 miles, Lateral Canals – 5 miles.

1.3 Purpose of and Need for Proposed Action

The purpose of the Project is to enclose approximately seven miles of canal to conserve approximately 50 percent of the water due to seepage and/or evaporation which is about 1,454 acre-feet of water annually. Piping the canal would also reduce erosion, provide pressure to reduce pumping costs, and support shareholders in their effort to convert from flood irrigation to sprinkler irrigation.

The need for the Project is to shore up and deliver the maximum amount of water the Company is entitled to, under their water right, in order to reduce effects of the severe drought conditions. By piping sections that are known to have high infiltration rates, additional water would be available to fulfill the Project's purpose.

The Federal Action being considered is whether or not Reclamation should provide funding and authorize the Company to modify the existing canal by enclosing it in a pipe.

1.4 Public Scoping and Involvement

A list of the public meetings and meeting notes are in Appendix 1. A few of the key public meetings and the 30-day comment period are listed below:

1. An Annual Shareholder meeting was held February 7, 2015, to discuss the proposed Project.
2. Special Shareholder meeting was held June 28, 2015, to vote on the Project loan. Of the 299 shareholders 233 voted. Very few votes were received through the mail, which indicates most Company shareholders were present.
3. January 11, 2016, meeting with the Oneida County Commissioners at the Oneida County Court House to discuss the Project.
4. February 6, 2016, Annual Shareholder Meeting.
5. A 30-day public comment period from May 19, to June 20, 2016 was conducted to receive input/comments on the Draft EA from property owners within the Canal right-of-way, interested public, and state and Federal agencies.

1.5 Permits and Authorizations

Implementation of the Proposed Action may require the following authorizations or permits from Federal and state agencies. The Company would be responsible for obtaining all permits and authorizations required for the Project. Potential authorizations or permits may include those listed in Table 1-1.

Table 1-1
Permits and Authorizations

Agency/Department	Purpose
State of Idaho Department of Natural Resources, Division of Water Rights	Stream Alteration Permit under Section 404 of the Clean Water Act and Idaho statutory criteria of stream alteration described in the Idaho Code. This would apply for impacts to natural streams or creeks during Project construction.
Idaho State Historic Preservation Office	Consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA), 16 USC 470 USC 470.
United States Fish and Wildlife Service	Consultation pursuant to Section 7 of the Endangered Species Act.

1.6 Scope of Analysis

The purpose of this EA is to determine whether or not Reclamation should authorize and provide funding through the WaterSMART program, to the Company for the enclosure of the Canal. That determination includes consideration of whether there would be significant impacts to the human environment. In order to enclose the Canal, this EA must be completed and a FONSI issued. Analysis in the EA includes temporary impacts from construction activities and permanent impacts as a result of enclosing the Canal.

Chapter 2: Alternatives

2.1 Introduction

This chapter describes the features of the No Action and Proposed Action Alternatives, and presents a comparative analysis. It includes a description of each alternative considered. This section also presents the alternatives in comparative form, defining the differences between the two alternatives.

2.2 No Action

Under the No Action Alternative, the Company's canals would remain open. They would continue to lose water diverted from Little Malad River through seepage and evaporation.

2.3 Proposed Action (Preferred)

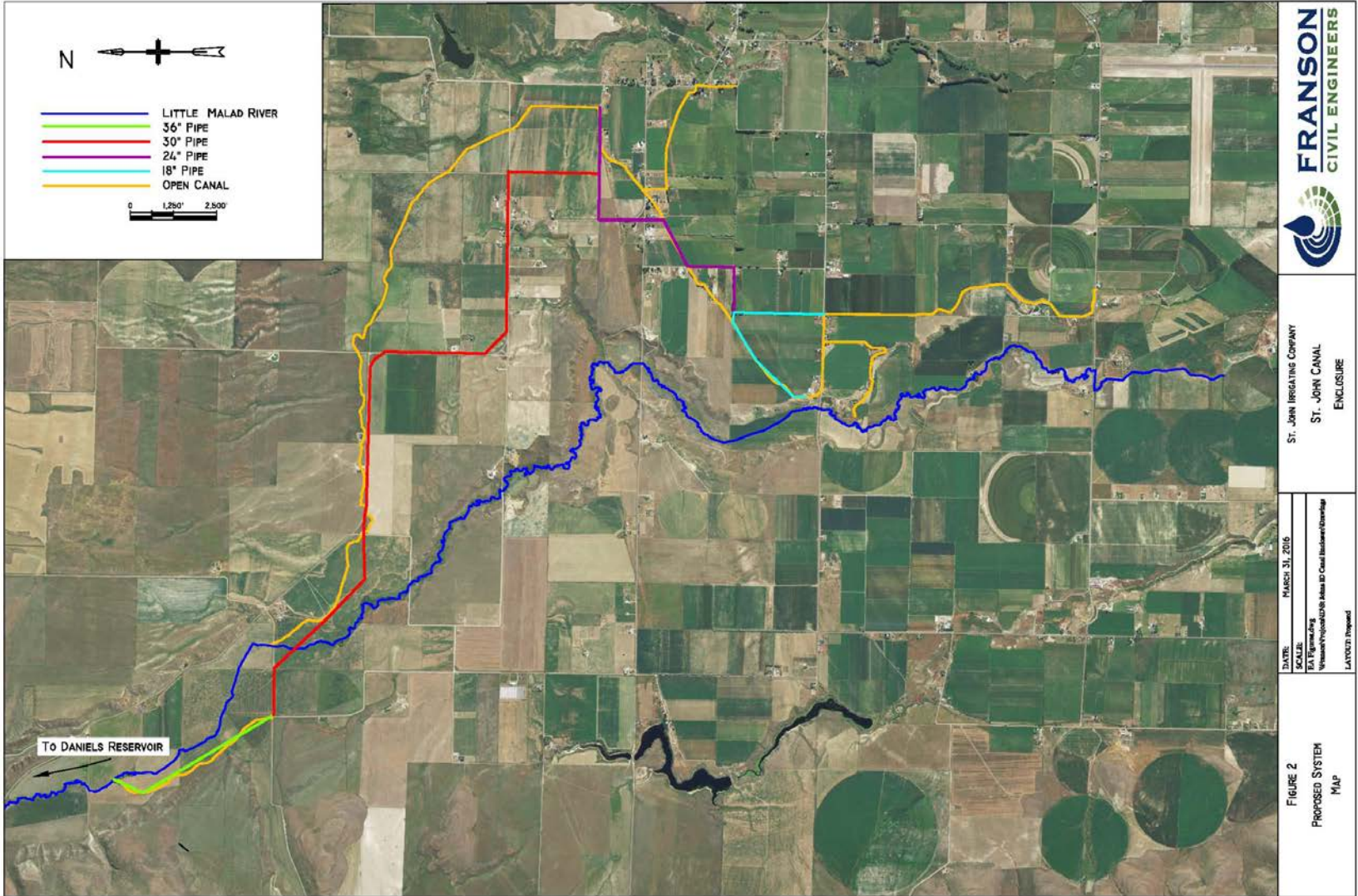
The Proposed Action is the preferred alternative. A seven mile portion of the main canal, an area of high infiltration, would be replaced with a pipeline. Figure 2 shows the proposed pipeline alignment, which begins northwest of Malad, diverting water from the existing diversion on the Little Malad River. The pipe would primarily follow roadways with a few locations being placed in the existing canal. An inlet/screening structure would be constructed along with an outlet structure. Meters, to measure water, would be placed on all laterals along the pipeline.

2.3.1 Canal Enclosure

The pipe size would vary from 18 to 36-inches in diameter. During planning of the Project, the canal would continue to be operated as an open canal, not piped, and would have limited pressure until the entire Project is completed. At that time, the canal would be abandoned and the pipeline would be utilized.

2.3.2 Turnouts

Approximately 25 turnouts would be installed along the pipeline to deliver water. During high flow events water could remain in Little Malad River.



2.3.3 Rights-of-Way

The land, in which the construction would occur is either private property, of which easements are being obtained, or public lands with rights-of-way, or within the canal alignment right-of-way.

2.3.4 Road Crossings

The Project alignment would be along local roads northwest of Malad City. Roads may be temporarily shut down at the crossings so the road can be cut and the pipeline installed. While the road crossings are out of service, temporary detours would be provided. The road would be repaired following pipeline construction.

Driveway crossings provide access over the canal for individual land owners and consist of existing culverts. Most of these crossings would remain intact throughout construction of the Project. Residents would be notified prior to any disruption to access.

2.3.5 River Crossings

The Little Malad River would be crossed once. The river would be temporarily disrupted during construction, it would remain open following pipeline construction.

2.3.6 Saved Water

High water loss and recent dry years have caused an early end to the irrigation season and not allowed the Company to use its full water right. An estimated 1,454 acre-feet of water would be conserved by implementing this Project. With good construction practices, the losses due to seepage and evaporation would be near zero.

The water users would benefit from the saved water by receiving their full water right. The saved water does not constitute a new source of water previously unavailable to the users of the canal.

2.3.7 Construction Schedule and Canal Operation During Construction

The work of piping the canal would begin in late summer 2016 during the non-irrigation season. Any work not completed in fall 2016 would be completed in spring 2017. Access to the farmlands and agricultural areas would be maintained during construction. The Company's board members would work with the affected property owners to address their concerns, to the extent possible.

It is anticipated that the pipe used would be polyvinyl chloride (PVC), which has an industry accepted life expectancy of 50 years. Corrosion resistant fittings would be used to increase life expectancy of all fittings and appurtenances.

2.3.8 Pipeline Construction Procedures

2.3.8.1 Construction Sequence

Construction would occur in the following sequence:

- Excavate and grade pipeline alignment
- Install pipeline bedding materials
- Haul pipeline to construction sites
- Place pipeline and connect
- Backfill around pipeline and grade surface
- Cleanup and restore areas disturbed by construction

2.3.8.2 Excavate and Grade Pipeline Alignment

The pipeline alignment, including the canal locations where pipeline would be placed, would be excavated and graded to provide a base for installation. The excavated and excess material could be used for backfill and would be disposed along the enclosure in ways that blend with adjacent lands. Bedding material would be hauled to the Project site and placed in the bottom of the pipeline trench. Soil in work areas would be blended with existing contours to maintain local drainage patterns. All construction debris would be removed by the contractor.

2.3.8.3 Pipeline Installation

The pipe manufacturer would transport the materials to the work site by flatbed truck and/or specially outfitted loaders. Construction equipment would place the pipeline in the prepared alignment and connect it to the previously laid section by field welding, depending upon the type of pipe. Backfill would be placed at correct compaction levels around the pipeline, from either material available along the alignment or imported from local offsite commercial gravel pits. Backfill would be mechanically compacted with a compactor. Air-valves, control valves, drains, fittings, and relief valves would be installed at appropriate locations to ensure the proper operation of the pipeline.

2.3.8.4 Road Crossings

It is anticipated that pipeline installation at road crossings would be completed with minimal disturbance to existing structures, where possible. Backfill would be compacted all the way to the ground surface at road crossings to prevent the road surface from subsiding under repeated traffic loads during and after construction. Temporary gravel surfaces would be installed and the final asphalt and curb and gutter, where existing, would be restored by the completion of the Project. Road crossings would be restored to a condition better than or equal to existing conditions, as confirmed by video footage and photographs.

2.3.8.5 Stream Crossings

The pipeline would cross the Little Malad River in one location at the north end of the Project. Construction would occur during the fall when little to no water is flowing in the river. A Stream Alteration Permit would be obtained prior to cutting the channel open for pipe installation.

2.3.8.6 Quality Control Procedures

The contractor would ensure quality control of construction through visual inspection. The required testing would be performed to ensure that the system operates to design specifications.

2.3.8.7 Construction Staging Areas

Staging areas would be in recently farmed fields and within the rights-of-way of the canal. The pipeline alignment would be a continuous staging area for the construction crews as they construct the pipeline, by preparing the alignment, lay the pipeline, backfill, and finish grading and restoration. It would be conducted in stages. Four to five separate staging areas (4 to 5 acres) in the Project area would be used for equipment staging, construction personnel vehicular parking, and occasional materials stockpiling.

2.3.8.8 Operation and Maintenance

Operation of the Company's system after enclosure would remain essentially unchanged, and maintenance would be reduced significantly as a result of the enclosure. Operation would occur primarily from April 15 to October 15. Emergency situations or when other conveyance systems are out of service may require the pressurized pipeline to be operated at other times.

2.3.8.9 Standard Operating Procedures

The Project has been designed to avoid or minimize adverse impacts. Standard Operating Procedures would be followed during Operation of the Project to avoid or minimize adverse impacts on people and natural resources.

2.4 Alternatives Considered and Eliminated from Further Study

The following alternatives were considered but eliminated from further analysis because they did not meet the purpose of or need for the Project.

2.4.1 Membrane Lining

This alternative involves lining the existing canal with an impermeable membrane, such as an ethylene propylene diene monomer or polyvinyl chloride. This liner would be installed on top of a 6-inch-thick layer of clean backfill material and covered with several inches of the same backfill material.

This alternative was rejected because of susceptibility to puncturing and the need to repair punctures on a regular basis. Punctures can occur when equipment or large animals such as livestock, enter the canal. This alternative would also still allow debris to enter the canal, it would not shorten the time to make flow changes, and most of the other aspects of an open canal would remain the same.

This alternative does not meet the purpose and need of the Project because it would keep the water in an open environment; thus allowing evaporation and

contamination from equipment and livestock. Public safety would not be improved with this alternative.

2.4.2 Gravity Pipeline

This alternative would pipe the existing canal alignment with a 24 to 48-inch-diameter pipe. A large size pipe is required to convey the free flowing water. The Pipeline would be installed within the existing alignment.

While this alternative would conserve water, it is cost prohibitive and does not meet the purpose of and need of the Project to pressurize the system and conserve energy.

2.5 Comparison of Alternatives

The suitability of the No Action and Proposed Action Alternatives were compared in Table 2-1 based on the objectives identified for the Project (Section 1.1).

**Table 2-1
Comparison of Alternatives**

Project Objective	Does the No Action Meet the Objective	Does the Proposed Action Meet the Objective
Conserve water	No	Yes
Reduce erosion	No	Yes
Pressurize the pipeline	No	Yes
Improve reliability of water delivery	No	Yes
Convert from flood to sprinkler irrigation	No	Yes
Positive impact on the economy	No	Yes

The No Action Alternative did not meet the Project’s objectives while the Proposed Action met all of the objectives.

2.6 Minimization Measures Incorporated into the Proposed Action

The minimization measures, along with other measures listed under each resource in Chapter 3 and Chapter 4, have been incorporated into the Proposed Action to lessen the potential adverse effects.

- All land surface disturbances would be confined to areas previously disturbed, ditch right-of-way, existing roads, agricultural farmland, and small staging areas adjacent to the Project area, to the extent possible.
- Stockpiling of materials would be limited to those areas approved and cleared in advance.
- The Company would be responsible during construction for safety measures, noise control, dust control, and air, and water pollution.

Chapter 3: Affected Environment and Environmental Consequences

3.1 Introduction

This chapter describes the environment that could be affected by the No Action and Proposed Action Alternatives. These impacts are discussed under the following resources: geology and soils resources; visual resources; cultural resources; paleontological resources; wilderness and wild and scenic rivers; hydrology; water quality; health, safety, air quality, and noise; prime and unique farmlands; wetlands, riparian, vegetation, and noxious weeds; wildlife resources; threatened, endangered, and sensitive species; recreation; socioeconomics; flood control; access and transportation; water rights; Indian Trust Assets; and environmental justice. The present condition or characteristics of each resource are discussed first, followed by a discussion of the predicted impacts caused by the No Action and Proposed Action Alternatives. The environmental effects are summarized in Section 3.7.

The areas that would be disturbed during construction are areas next to the existing canal and along the new alignment (Figure 2.). These areas and the Little Malad River, have the highest potential to be environmentally impacted by the proposed Project. This chapter discusses the potential impacts that the Proposed Action could have on these areas and the surrounding environment.

Implementing minimization measures would ensure impacts are minimal and short-term. Chapter 3 presents the impact analysis for resources after minimization measures and Best Management Practices (BMPs) have been successfully implemented.

3.2 Resources Considered and Eliminated from Further Analysis

The following resources were considered but eliminated from further analysis because they did not occur in the Project area, or because their effect is so minor (negligible) that it was discounted.

**Table 3-1
Resources Eliminated from Analysis**

Resource	Rationale for Elimination from Further Analysis
Paleontological Resources	Consultation with the State Paleontologist at the Idaho Geologic Survey indicates there is a low probability of the presence of significant paleontological resources in the Project area.
Wilderness and Wild and Scenic Rivers	There are no designated Wilderness Areas or Wild and Scenic Rivers within the Project area; there would be no impact to these resources from the Proposed Action.
Prime and Unique Farmlands	There is Prime Ranchland within the Project area but no Prime or Unique Farmland. There would be no conversion of farmland to non-agricultural use, as defined by the Farmland Protection Policy Act (USC 4201-4209), by implementing the No Action or Proposed Action Alternatives.
Recreation	Little Malad River and the Company’s ditches are not fisheries. They are frequently dry, small and receive very little recreation use.
Access and Transportation	Access and transportation to and from the site would be maintained during construction and the same following construction.
Water Rights	No water rights would be exchanged and no points of diversion would be changed.

3.3 Affected Environment and Environmental Consequences

This chapter describes the affected environment (baseline conditions) and environmental consequences (impacts as a result of the No Action and Proposed Action Alternatives) on the quality of the human environment, that could be impacted by construction and operation of the Proposed Action, as described in Chapter 2. The human environment is defined as all of the environmental resources, including social and economic conditions occurring in the impact area of influence.

3.3.1 Geology and Soils Resources

The soils are “alluvial and consist of deep layers of gravel, sand, silts, and clays from adjacent hills and mountains. Surface soils are silty deposits from ancient Lake Bonneville” according to a study performed in 1983, by the United States Department of Agriculture (USDA, 1983). The report estimated that at least 35 percent of the water is lost in the canal due to seepage, evaporation, and vegetation use. Local officials estimate that losses are now approaching 50 percent.

The dominant soil type is Kidman fine sandy soils. The next most common soils are the Parleys silt loam and the Tirod silt loam. These soils are susceptible to seepage.

3.3.1.1 No Action

Under the No Action, the Project would not be built and there would be no effect on geology. Canal bank erosion would continue.

3.3.1.2 Proposed Action

The Proposed Action Alternative would have temporary surface soil impacts during construction. Construction erosion and sediment controls would serve to minimize these impacts. Enclosing the canal would prevent canal bank erosion.

3.3.2 Visual Resources

Natural and constructed features contribute to the visual resources within the Project area, including: mountain views, agricultural fields, and vegetation along the canal corridor. Viewers, including local residents, workers, and recreationists, have a perception of the existing physical characteristics. This section assesses the extent to which the Project would change the perceived visual character and quality of the environment where the Project is located.

3.3.2.1 No Action

Under the No Action Alternative, there would be no changes to the existing visual resources.

3.3.2.2 Proposed Action

Under the Proposed Action Alternative, it is anticipated that there would be minor direct impacts to the visual resources along the mountain range due to construction of the Project. The canal would be enclosed in many locations which would return the ground surface to how it had occurred naturally.

There would be minor impacts from constructing a pipeline to the overall visual character from the close-range to mid-range or even to long-range viewers. Any visual impairment due to construction would be temporary.

3.3.3 Cultural Resources

Cultural resources are defined as physical, or other expressions of human activity or occupation. These resources could include prehistoric and historic archaeological sites, culturally significant landscapes, as well as isolated artifacts or features, traditional cultural properties, Native American and other sacred places, artifacts and documents of cultural and historic significance.

Section 106 of the National Historic Preservation Act (NHPA) of 1966, mandates that Reclamation take into account the potential effects of a proposed undertaking on historic properties. Historic properties are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for, inclusion in the

National Register of Historic Places (NRHP). Potential effects of the described alternatives on historic properties are the primary focus of this analysis.

The affected environment for cultural resources is identified as the APE (Area of Potential Effects), in compliance with the regulations to Section 106 of the NHPA (36 CFR 800.16). The APE is defined as the geographic area within which Federal actions may directly or indirectly cause alterations in the character or use of historic properties. The APE for this Proposed Action consists of a 60-foot-wide linear corridor, approximately 7 miles in length and the staging areas. The APE encompasses the areas of potential ground disturbance associated with the proposed pipeline.

A Class I record search and a Class III cultural resource inventory of the APE, were completed by Bighorn Archaeological Consultants (Bighorn), in March 2016. Bighorn identified one cultural resource within the APE: The St. John's Ditch. This irrigation ditch was constructed in the 1920s and continues to function as an important component of the St. John's Irrigation Company. Bighorn recommended that the site is eligible for inclusion on the National Register of Historic Places (NRHP) under criterion A, in that the ditch is "associated with events that have made a significant contribution to the broad patterns of our history" by providing the Malad, Idaho area with irrigation water; thus, helping agriculture and subsequent development in Idaho (Baxter 2016). Reclamation concurred with the recommendation.

In compliance with 36 CFR 800.4(d) (2) and 36 CFR 800.11(e), a copy of the Class III cultural resource inventory report was submitted to the Idaho State Historic Preservation Office (SHPO). Additional consultation occurred with the Advisory Council on Historic Preservation, and tribes who may have religious or cultural significance attached to historic properties possibly affected by the Proposed Action.

3.3.3.1 No Action

Under the No Action Alternative, there would be no foreseeable impacts to cultural resources. There would be a continuation of existing management and land use practices, including on-going maintenance and repair of existing facilities. The existing conditions would remain intact and would not be affected.

3.3.3.2 Proposed Action

Under the Proposed Action Alternative, construction activities have the potential to discover previous, unknown, cultural resources and Native American artifacts. In the event of a discovery, construction activity in the vicinity would be suspended. A treatment plan would be developed, and coordination with SHPO would occur immediately.

3.3.4 Hydrology

The Little Malad River begins at Daniels Reservoir and flows southeast through the valley. No stream or river fills the reservoir, the majority of water that is stored in Daniels Reservoir is from spring runoff. The majority of flow in the

Little Malad River is a direct result of the amount of water that is released from Daniels Reservoir by the Company. The Company manages the water that is released from Daniels Reservoir, which in turn manages the water in the Little Malad River. The Little Malad River is frequently dry and there is no minimum flow requirement below the reservoir. The Company has splitting structures on the Little Malad River that allows them to divert the water into the irrigation canals.

The Daniels Reservoir/Little Malad River is the only source of water and has been used for crop cultivation since the 1870's. The available water is often limited and inconsistent, and farmers in the area have always sought ways to improve the supply. The spring runoff is stored in the reservoir, and the irrigation Company must manage the water in the reservoir throughout the year to maximize crop yield. In the past 10 years, the irrigating season has ended "early" due to insufficient water in the reservoir.

3.3.4.1 No Action

Under the No Action Alternative, the Little Malad River streamflow would still be dependent upon the water that is released from Daniels Reservoir by the Company, as there would be no change in the existing management of the water resource.

3.3.4.2 Proposed Action

The Proposed Action Alternative would have a negligible effect, due to the fact that the Little Malad River streamflows would still be dependent upon the water that is released from Daniels Reservoir. The amount of water released would be based upon the amount of water stored as it has been since the construction of Daniels Reservoir. The same amount of water would be diverted into the proposed pipeline as historically diverted into the Little Malad River. However, the current water lost to seepage and evaporation would be conserved and available to shareholders.

3.3.5 Water Quality

Daniels Reservoir relies almost solely on spring runoff, with very small additions from nearby springs. Little Malad River flows are released from Daniels Reservoir. Over time, the river bank has slowly eroded causing sediment from bank erosion to enter the canal affecting water quality. The canal intercepts agricultural runoff, which can contain fertilizers, pesticides, sediment, automobile related pollutants (lead, copper, zinc, oil, grease, and rust), and de-icing chemicals (salt and salt solutions).

The aquatic life of the Little Malad River is classified as COLD in the Idaho Administrative Code (IAC) 58.01.02 Water Quality Standards. Total Maximum Daily Load's (TMDL) identified include total phosphorus and total suspended solids. The phosphorus is probably due to natural sources, such as phosphate-bearing deposits but also could have some contribution from livestock wastes as a result of agricultural uses on fields (Idaho Division of Environment, 1983).

3.3.5.1 No Action

Under the No Action Alternative, there would be no changes to the current conditions. Any herbicides, nutrients, and sediments would continue to remain in the water.

3.3.5.2 Proposed Action

Under the Proposed Action Alternative, water quality impacts during construction would be minimal, because there is little water in the river and canals during the winter. Piping the system would improve water quality by eliminating exposure to the water from bank erosion and agricultural runoff. There are no foreseen long term negative impacts to water quality in Little Malad River, or the irrigation system.

3.3.6 Health, Safety, Air Quality, Noise

There are no urbanized areas within the Project area. This Project does not have any health, safety, air quality or noise issues.

3.3.6.1 No Action

Under the No Action Alternative there would be no changes, therefore no adverse effects to health, safety, air quality, and noise.

3.3.6.2 Proposed Action

Portions of the pipeline alignment are currently vegetated along the roadway, local residents may experience minimal air quality impacts associated with dust during construction, and it is not considered to be a health issue. The Proposed Action would also have minor short-term effects during construction due to noise but there would be no long-term effects on health, safety, air quality, and noise.

3.3.7 Wetlands, Riparian, Vegetation, and Noxious Weeds

3.3.7.1 Wetlands

The National Wetland Inventory was searched for known wetlands within the Project area. There are no delineated wetlands along the pipeline alignment. As discussed, the soils are well drained, have little to no flooding, do not pond well and are therefore, not ideal for supporting wetlands.

3.3.7.2 Riparian

Riparian areas are directly influenced by water from a watercourse or water body. They typically exist along lakes, rivers, streams, and constructed water bodies such as ditches, canals, ponds, and reservoirs. As shown in the following photo, the Little Malad River contains some riparian plants including willows and grasses.



3.3.7.3 Vegetation

Habitat surrounding the proposed pipeline is primarily agricultural with foothills nearby containing tree stands that are pinyon (*Pinus edulis*) and juniper (*Juniperus sp.*) intermingled with sagebrush (*Artemisia tridentata*) and rabbitbrush (*Ericameria nauseosa*). The pipeline corridor is dominated with grass and weeds and relatively clear of large woody vegetation. The following photos are representative of the existing vegetation.



3.3.7.4 Noxious Weeds

Noxious weeds are generally plants that are non-native and invasive to endemic ecosystems. They tend to grow and proliferate in human-disturbed areas.

Idaho has Cooperative Weed Management Areas (CWMA) covering 87 percent of the state. These CWMA's participate in the Idaho State Department of

Agriculture cost-share program, which assists local agencies in the fight against noxious weeds. Raft River is the local CWMA agency.

Idaho has 67 different species of weeds which are designated noxious by state law. They are divided into three levels of concern, including early detection-rapid response, control list, and containment list. The following is a list of noxious weeds declared in the State of Idaho from the Idaho State Department of Agriculture website for containment. A localized list for Oneida County is not available.

Canada Thistle (<i>Cirsium arvense</i>)	Poison Hemlock (<i>Conium maculatum</i>)
Curlyleaf Pondweed (<i>Potamogeton crispus</i>)	Puncturevine (<i>Tribulus terrestris</i>)
Dalmation Toadflax (<i>Linaria dalmatica</i> ssp. <i>Dalmatica</i>)	Purple Loosestrife (<i>Lythrum salicaria</i>)
Diffuse Knapweed (<i>Centaurea diffusa</i>)	Rush Skeletonweed (<i>Chondrilla juncea</i>)
Field Bindweed (<i>Convolvulus arvensis</i>)	Saltcedar (<i>Tamarix</i> sp.)
Flowering Rush (<i>Butomus umbellatus</i>)	Scotch Thistle (<i>Onopordum acanthium</i>)
Hoary Alyssum (<i>Berteroa incana</i>)	Spotted Knapweed (<i>Centaurea stoebe</i>)
Houndstongue (<i>Cynoglossum officinale</i>)	Tansy Ragwort (<i>Senecio jacobaea</i>)
Jointed Goatgrass (<i>Aegilops cylindrical</i>)	White Bryony (<i>Bryonia alba</i>)
Leafy Spurge (<i>Euphorbia esula</i>)	Whitetop (<i>Cardaria draba</i>)
Milium (<i>Milium vernale</i>)	Yellow Flag Iris (<i>Iris pseudocorus</i>)
Oxeye Daisy (<i>Leucanthemum vulgare</i>)	Yellow Starthistle (<i>Centaurea solstitialis</i>)
Perennial Pepperweed (<i>Lepidium latifolium</i>)	Yellow Toadflax (<i>Linaria vulgaris</i>)
Plumeless Thistle (<i>Carduus acanthoides</i>)	

3.3.7.5 No Action

Under the No Action Alternative, a continuation of existing management and land use practices would occur. It would include on-going maintenance and repair of existing facilities. There would be no changes to the current conditions.

3.3.7.6 Proposed Action

Under the Proposed Action Alternative, no wetland areas would be disturbed, and the spread of noxious weeds would be decreased because the water, which would be placed in the pipeline, would be screened. Disturbances to all vegetation types would be expected to be temporary and minimal. Disturbed areas would be reclaimed with a weed-free seed mixtures designed for the area (see environmental commitment 11).

3.3.8 Wildlife Resources (Fish, Small Mammals, Raptors, Migratory and Other Birds, Big Game)

The Project area provides habitat for a wide variety of wildlife species ranging from mule deer and elk to migratory birds and small mammals. According to the

Information for Planning and Conservation (IPaC) Report, there are no critical habitats for wildlife within the Project area.

The following section profiles species that have identified habitats found in and adjacent to the Project.

3.3.8.1 Fish

The Little Malad River is not a major fishery in the area and Idaho Fish and Game does not stock fish in it. All water in Little Malad River is released from Daniels Reservoir. At the end of the summer/fall little to no water is released from Daniels Reservoir. This dewatering much of the Little Malad River and the canals. Low flows and often dry conditions in the summer and winter limit fish habitat.

3.3.8.2 Small Mammals

Small mammals are inherent in rural, agricultural areas. These small mammals use the upland habitat, as well as the agricultural properties and the lands in-between to live and locate prey.

3.3.8.3 Raptors

The U.S. Fish and Wildlife Service (USFWS) IPaC Trust Resource List identifies raptors that could occur in the Project area. Raptors, such as the bald eagle (*Haliaeetus leucocephalus*), may winter in the area but do not breed locally. The ferruginous hawk (*Buteo regalis*) and short-eared owl (*Asio flammeus*) may be found year-round. The flammulated owl (*Otus flammeolus*), peregrine falcon (*Falco peregrinus*), and Swainson's hawk (*Buteo swainsoni*) may breed in the area. A large portion of raptor's diet includes many of the small mammals that live in the open grasslands and agricultural lands within the Project area.

3.3.8.4 Migratory and Other Birds

The habitat in the Project area supports migratory and other birds. The following birds were identified on the USFWS's IPaC Trust Resource List for breeding: Brewer's sparrow (*Spizella breweri*), burrowing owl (*Athene cunicularia*), Calliope hummingbird (*Stellula calliope*), eared grebe (*Podiceps nigricollis*), fox sparrow (*Passerella iliaca*), green-tailed towhee (*Pipilo chlorurus*), Lewis's woodpecker (*Melanerpes lewis*), loggerhead shrike (*Lanius ludovicianus*), long-billed curlew (*Numenius americanus*), sage thrasher (*Oreoscoptes montanus*), virginia's warbler (*Vermivora virginiae*), eastern grebe (*Aechmophorus occidentalis*), and the willow flycatcher (*Empidonax traillii*).

Other birds that occur year round in the Project area include: black rosy-finch (*Leucosticte atrata*), Cassin's finch (*Carpodacus cassinii*), greater sage-grouse (*Centrocercus urophasianus*), and pinyon jay (*Gymnorhinus cyanocephalus*).

3.3.8.5 Big Game

The Project area and adjacent lands have crucial winter habitat for mule deer (*Odocoileus hemionus*) and rocky mountain elk (*Cervus canadensis nelsoni*). During the winter, elk are usually found in lower to mid-elevation habitats with

mountain shrub and sagebrush vegetation. During summer, most mule deer tend to inhabit areas at higher elevations, although deer migrate to lower elevations at night to feed in adjacent agricultural fields.

3.3.8.6 No Action

The No Action Alternative represents a continuation of existing management and land use practices. There would be no impacts to wildlife.

3.3.8.7 Proposed Action

Under the Proposed Action Alternative, there would be no major long-term negative effects to wildlife. Construction activities would occur in or adjacent to areas that were previously disturbed by agricultural development, homes, and roadways. Construction would be in the late summer through early spring. Wildlife disturbance would be localized, temporary, and minimal, due to the lineal and fast moving nature of the construction activities. Revegetation at that elevation and location in spring and early summer would likely occur fairly rapidly, which would minimize the disruption of habitat use by wildlife.

Seasonal migrations of wildlife may be affected by Project construction. This would be temporary, and wildlife would be able to use adjacent lands during this time. Temporary effects would be minimized by restricting construction activities to avoid sensitive breeding or nesting seasons.

There would be no displacement or harassment of breeding, nesting, or fledged birds because the construction season would occur during the late summer, winter, and early spring, which is after and prior to times when birds are actively breeding and nesting in the area. In the event that construction activities occurred in the late spring/early summer or any time active breeding, nesting, or pre-fledging behavioral activities were happening, the Company would adhere to the USFWS Raptor Guidelines, placing appropriate buffers on nests until fledging activities concluded. If nests of migratory birds were located during the construction process, a Reclamation biologist would be consulted, and an appropriate buffer would be put in place. If any cottonwood trees and/or willows were removed during construction, birds in the Project area would be able to use similar roost sites or other habitats in the immediate Project vicinity. The Project is being designed to avoid, to the extent possible, small and large trees.

Effects to fish, small mammals, reptiles, and big game would be minimal. If the species were present during construction, minor disturbance may occur. The canal and stream are unreliable sources of water because they go dry frequently. Temporary changes in habitat for wildlife species would be negligible. Overall, the direct and indirect effects to wildlife resources would be minimal. The long and short-term impacts to habitat, water sources, and behavior would be minor.

3.3.9 Threatened, Endangered, and Sensitive Species

Federal agencies are required under the Endangered Species Act (ESA), 16 USC 1531, to ensure that any action federally authorized, funded, or carried out, does not jeopardize the continued existence of threatened or endangered species, or modify their critical habitat.

An IPaC Report was obtained from USFWS, regarding any threatened or endangered species within the Project area. There are no threatened, endangered, or sensitive species or their critical habitat present in the Project area.

3.3.9.1 No Action

Under the No Action Alternative, there would be no impacts based on the absence of any threatened and endangered species or its critical habitats. It would be a continuation of existing management and land use practices. There would be no changes to the current conditions.

3.3.9.2 Proposed Action

Under the Proposed Action Alternative, based on the absence of the species or its critical habitat, there would be no effect to threatened and endangered species.

3.3.10 Socioeconomics

The population of Malad City was 2,095 in the 2010 Census. This represents a 2.9 percent decrease since 2000. The estimated median household income for 2013 was \$34,465, which is 35.1 percent lower than the state's median of \$53,105. Malad City exhibits limited overall racial diversity, with 96.5 percent of residents classified as white in 2010, and the next largest race being Hispanic or Latino at 3 percent.

3.3.10.1 No Action

Under the No Action Alternative, there would be no changes to the socioeconomics of the community.

3.3.10.2 Proposed Action

There would be an increase in crop production to shareholders in the Company providing an economic benefit due to the implementation of the Proposed Action Alternative. The main crops are alfalfa, grains, corn, and wheat. In discussions with several St. John Company members, the current yield for alfalfa is 2 to 3 cuttings at 5.5 ton per acre, priced at \$115 a ton. With the water savings they are hoping to get 3 cuttings every year. It is expected there would also be a temporary increase in jobs created during construction, including construction workers and local suppliers of construction materials. The construction cost of the Project would be approximately \$2.3 million dollars with the pipe alone costing an estimated at \$1.3- \$1.5 million dollars. The Company has talked to contractors and pipe suppliers within a 30 mile radius. It is estimated that the Project could inject \$2 million into the local economy.

Lands currently flood irrigated would change from flood irrigation to sprinkler irrigation. Positive economic benefits would result from the Proposed Action.

3.3.11 Flood Control

The canal system has not served as a flood control facility. Daniels Reservoir is able to retain large storm events, and the Little Malad River would continue to collect runoff as it has throughout its history.

3.3.11.1 No Action

Under the No Action Alternative, there would be no changes. Daniels Reservoir would continue to retain both large and small storm events for the majority of the watershed, and Little Malad River would collect the limited localized runoff.

3.3.11.2 Proposed Action

Under the Proposed Action Alternative, Daniels Reservoir would continue to retain both large and small storm events for the majority of the watershed, and Little Malad River would collect the limited localized runoff.

3.4 Indian Trust Assets

Indian Trust Assets are legal interests in property held in trust by the United States for federally recognized Indian Tribes or Indian individuals. Assets can be real property, physical assets, or intangible property rights, such as lands, minerals, hunting and fishing rights, and water rights. The United States has an Indian Trust responsibility, to protect and maintain rights reserved by or granted to such tribes or individuals by treaties, statutes, and executive orders. These rights are sometimes further interpreted through court decisions and regulations. This trust responsibility requires that all Federal agencies take all actions reasonably necessary to protect trust assets. Reclamation carries out its activities in a manner which protects these assets and avoids adverse impacts when possible. When impacts cannot be avoided, Reclamation would provide appropriate mitigation or compensation. Implementation of the Proposed Action would have no foreseeable negative impacts on Indian Trust Assets.

3.5 Environmental Justice

Executive Order 12898, established Environmental Justice as a Federal agency priority to ensure that minority and low-income groups are not disproportionately affected by Federal actions. Implementation of the Proposed Action would not disproportionately (unequally) affect any low-income or minority communities within the Project area. The reason for this is that the proposed Project would not involve major facility construction, population relocation, health hazards, hazardous waste, property takings, or substantial economic impacts. This action would therefore, have no adverse human health or environmental effects on minority and low-income populations.

3.6 Cumulative Effects

In addition to Project-specific impacts, Reclamation analyzed the potential for significant cumulative impacts to resources affected by the Project, and by other past, present, and reasonably foreseeable activities within the watershed.

According to the Council on Environmental Quality's regulations for implementing NEPA (50 CFR §1508.7), a “cumulative impact” is an impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. It focuses on whether the Proposed Action, considered together with any known or reasonably foreseeable actions by Reclamation, other Federal or state agencies, or some other entity combined to cause an effect. There is no defined area for potential cumulative effects.

Cumulative effects for this Project may include maintenance and repair work on the pipeline. Any impacts from this work would be temporary in nature with no long-term impacts. Based on resource specialists’ review of the Proposed Action, Reclamation has determined that this action would not have a significant adverse cumulative effect on any resources.

Table 3-2 summarizes environmental effects under the No Action and the Proposed Action Alternatives.

**Table 3-2
Summary of Environmental Effects**

Project Resource	No Action	Proposed Action
Geology and Soils Resources	No Effect	No Effect
Visual Resource	No Effect	Minor Effect
Cultural Resources	No Effect	Requires MOA with SHPO
Hydrology	No Effect	No Effect
Water Quality	No Effect	No Effect
Health, Safety, Air Quality, Noise	No Effect	No Effect
Wetland, Riparian, Vegetation, and Noxious Weeds	No Effect	May result in the permanent loss of riparian vegetation along the abandoned canal sections.
Wildlife Resources	No Effect	No Effect
Threatened and Endangered Species, Sensitive Species	No Effect	No Effect
Socioeconomics	No Effect	No Effect

Project Resource	No Action	Proposed Action
Flood Control	No Effect	No Effect
Indian Trust Assets	No Effect	No Effect
Environmental Justice	No Effect	No Effect
Cumulative Effects	No Effect	No Effect

Chapter 4: Environmental Commitments

Environmental Commitments, along with Minimization Measures in Section 2.6 have been developed to lessen the potential adverse effects of the Proposed Action.

4.1 Environmental Commitments

The following environmental commitments would be implemented as an integral part of the Proposed Action.

1. **Standard Reclamation Best Management Practices** - Standard Reclamation BMP's will be applied during construction activities, to minimize environmental effects and will be implemented by construction forces, or included in construction specifications. Such practices or specifications include sections in the EA on Geology and erosion control, visual resources, public safety, dust abatement, air pollution, noise abatement, water pollution abatement, waste material disposal, archaeological and historical resources, vegetation, wildlife, and flood control. Excavated material and construction debris may not be wasted in any stream or river channel in flowing waters. This includes material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at a Reclamation approved upland site well away from any water channel. Construction materials, bedding material, excavation material, etc. may not be stockpiled in riparian or water channel areas. If necessary silt fencing will be appropriately installed and left in place until after revegetation becomes established, at which time the silt fence can then be carefully removed. Machinery must be fueled and properly cleaned of dirt, weeds, organisms, or any other possibly contaminating substances offsite prior to construction.
2. **Additional Analyses** - If the Proposed Action were to change significantly from that described in the EA, because of additional or new information, or if other construction areas are required outside the areas analyzed in this EA, additional environmental analysis including cultural and paleontological analyses will be undertaken if necessary.
3. **IPDES Permit** - An Idaho Pollution Discharge Elimination System (IPDES) Permit will be required from the State of Idaho before any discharges of water, if such water is to be discharged as a point source into a regulated water body. Appropriate measures will be taken to ensure that construction related sediments will not enter the stream either during or after construction. Settlement ponds and intercepting ditches for capturing

sediments will be constructed, and the sediment and other contents collected will be hauled off the site for appropriate disposal upon completion of the Project.

4. **Fugitive Dust Control Permit** - The Division of Air Quality regulates fugitive dust from construction sites, requiring compliance with rules for sites disturbing greater than one-quarter of an acre. Sensitive receptors include those individuals working at the site or motorists that could be affected by changes in air quality due to emissions from the construction activity. The BMP's will be followed to mitigate for temporary impact on air quality due to construction related activities. These may include the application of dust suppressants and watering to control fugitive dust; minimizing the extent of disturbed surface; during times of high wind, restricting earthwork activities; and limiting the use of, and speeds on, unimproved road surfaces.
5. **Cultural Resources** - In the case that any cultural resources, either on the surface or subsurface, are discovered during construction, Reclamation's Provo Area Office archeologist shall be notified and construction in the area of the inadvertent discovery will cease until an assessment of the resource and recommendations for further work can be made by a professional archeologist.

Any person who knows or has reason to know, that he/she has inadvertently discovered possible human remains on Federal land, he/she must provide immediate telephone notification of the discovery to Reclamation's Provo Area Office archaeologist. Work will stop until the proper authorities are able to assess the situation onsite. This action will promptly be followed by written confirmation to the responsible Federal agency official, with respect to Federal lands. The Idaho SHPO and interested Native American Tribal representatives will be promptly notified. Consultation will begin immediately. This requirement is prescribed under the Native American Graves Protection and Repatriation Act (43 CFR Part 10); and the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470).

6. **Paleontological Resources** - Should vertebrate fossils be encountered by the proponent during ground disturbing actions, construction must be suspended until a qualified paleontologist can be contacted to assess the find.
7. **Wildlife Resources** –
 - a. **Migratory Bird Protection** - The Company will adhere to the USFWS Migratory Bird Protection Guidelines.

i. Perform any ground-disturbing activities or vegetation treatments before migratory birds begin nesting or after all young have fledged.

ii. If activities must be scheduled to start during the migratory bird breeding season, take appropriate steps to prevent migratory birds from establishing nests in the potential impact area. These steps could include covering equipment and structures and use of various excluders (e.g., noise). Prior to nesting, birds can be harassed to prevent them from nesting on the site.

iii. If activities must be scheduled during the migratory bird breeding season, a site-specific survey for nesting prior to groundbreaking activities or vegetation treatments. Established nests with eggs or young cannot be moved, and the birds cannot be harassed (see ii., above), until all young have fledged and are capable of leaving the nest site.

iv. If nesting birds are found during the survey, appropriate spatial buffers should be established around nests. Vegetation treatments or ground-disturbing activities within the buffer areas should be postponed until the birds have left the nest. Confirmation that all young have fledged should be made by a qualified biologist.

b. **Raptor Protection** - The Company will adhere to the USFWS Raptor Guidelines by placing seasonal and spatial “no construction” buffers, along with daily timing restrictions around all active raptor nests or winter roosting bald eagles. If unknown nests are located during construction, the same guidelines will be implemented. Raptor protection measures will be implemented to provide full compliance with environmental laws. Locations of existing raptor nests and eagle roosting areas will be identified prior to the initiation of Project activities. Appropriate spatial buffer zones of inactivity will be established during breeding, nesting, and roosting periods. Arrival at nesting sites can occur as early as December for certain raptor species. Nesting and fledging can continue through August. Wintering bald eagles may roost from November through March.

8. **Wetland Resources** - Any and all wetlands will be avoided where practical. In the event that impacts to wetlands are unavoidable a U.S. Army Corps of Engineers 404 Permit will be obtained prior to any dredged or fill material being discharged into jurisdictional wetlands. Surveys will be conducted to evaluate temporary and permanent impacts to wetlands.

9. **Public Access** - Activity areas will be closed to public access during construction. The Company will coordinate with contractor's personnel, as necessary, to ensure public safety.
10. **Previously Disturbed Areas** - Construction and staging activities will be confined to previously disturbed areas where possible, for such activities as work, staging, and storage, waste areas and vehicle and equipment parking areas. Vegetation disturbance will be minimized as much as possible.
11. **Disturbed Areas** - All disturbed areas resulting from the Project will be smoothed, shaped, contoured, and rehabilitated to as near the pre-Project construction condition as practicable. After completion of the construction and restoration activities, disturbed areas will be seeded at appropriate times with weed-free, seed mixes having a variety of appropriate species (especially woody species where feasible) to help hold the soil around structures, prevent excessive erosion, and to help maintain other riverine and riparian functions. The composition of seed mixes will be coordinated with wildlife habitat specialists and Reclamation biologists. Weed control on all disturbed areas will be required. Successful revegetation efforts must be monitored and reported to Reclamation, along with photos of the completed Project.

Chapter 5: Consultation and Coordination

5.1 Introduction

This chapter details consultation and coordination between Reclamation and Federal, state, and local Government Agencies, Native American Tribes, and the public during the preparation of this EA. Compliance with NEPA, is a Federal responsibility that involves the participation of all of these entities in the planning process. The NEPA requires full disclosure about major actions taken by Federal agencies and accompanying alternatives, impacts, and potential mitigation of impacts.

The following agencies were consulted during the development of this EA.

**Table 3
Consultation List for EA Preparation**

Name	Purpose & Authorities for Consultation or Coordination	Contacts and Conclusions
U.S. Fish and Wildlife Service	Consultation under Section 7 of the ESA (16 USC 1531)	The USFWS was coordinated with for possible endangered species issues. An IPaC request was made on February 10, 2016.
Idaho Division of Wildlife Resources	Consult with Idaho Division of Wildlife Resources as the agency with expertise on wildlife and ESA; searched database for wildlife and ESA species	Contacted Jim Mende: 208-232-4703 March 28, 2016.
Idaho Conservation Data Center	State Special Status Species Wildlife species	Researched website on February 10, 2016
Idaho State Historic Preservation Society	Consult with Historic Society concerning historic building sensitivity of the Project area.	Contacted Mary Ann Davis: 208-334-3847 ext. 111.
Idaho Geological Survey	Consulted with Idaho Geologic Survey concerning the paleontological sensitivity of the Project area	Contacted Leif Tapanila at tapaleif@isu.edu

5.2 Public Involvement

On May 19, 2016, Reclamation mailed 91 scoping letters to property owners within the Canal right-of-way, and interested public, as well as state and Federal

agencies, notifying them of the Project. The mailed letters also included an invitation to participate in a 30-day public comment period which ended on June 20, 2016. One comment letter was received and the comments were considered and addressed in the EA. All comments will be in the Project administrative record and available for public review upon request.

5.3 Native American Consultation

Reclamation conducted Native American Consultation by sending letters to the Northwest Band Shoshone Tribe, Shoshone-Bannock Tribes of the Fort Hall Reservation of Idaho, Shoshone Tribe of the Wind River Reservation, and Ute Indian Tribe of the Uintah and Ouray Reservation. This consultation was conducted in compliance with 36 CFR 800.2(c)(2) on a government-to-government basis. Through this effort the tribe was given a reasonable opportunity to identify any concerns about historic properties; to advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance; to express their views on the effects of the Proposed Action on such properties; and to participate in the resolution of adverse effects.

5.4 Idaho Geological Survey

Franson Civil Engineers received a paleontological file search from the Idaho Geologic Survey on March 31, 2016 to determine the nature and extent of paleontological resources within the APE. The area has no known paleontological finds.

5.5 Idaho State Historic Preservation Office

A copy of the Class III Cultural Resource Inventory Report and a determination of historic properties affected for the Proposed Action was submitted to the SHPO. Concurrence on Reclamation's findings was received June 24, 2016. A memorandum of agreement was developed and signed to mitigate the damage to the St. John's ditch.

Chapter 6: Preparers

The following are contributors to the EA.

**Table 4
Contributors to the EA**

Name	Agency	Position Title	Contribution
Ms. Linda Andra	Reclamation	Secretary	Visual Identity, Editing
Mr. Rick Baxter	Reclamation	Manager, Water, Environmental, and Lands Division	Project oversight, ESA
Mr. Scott Blake	Reclamation	Recreation Specialist	Recreation, Visual Resources
Mr. Peter Crookston	Reclamation	Chief, Environmental Group	Environmental Assessment Coordinator, NEPA Compliance
Mr. Jeff Hearty	Reclamation	Economist	Economics
Mr. Ryan Luke	Reclamation	Chief, Operations, Emergency Management Group	Water Resources, System Operations
Mr. Zachary Nelson	Reclamation	Archaeologist	Cultural Resource, Paleontological Resources, Indian Trust Assets
Mr. Lane Peirce	Franson Civil Engineers Inc.	Senior Engineer	Project Manager, Writing, Editing
Mr. Justin Record	Reclamation	Civil Engineer	Water Rights
Ms. Monique Robbins	Franson Civil Engineers Inc.	Senior Engineer	Project Manager, Writing, Editing
Mr. David Snyder	Reclamation	Fish and Wildlife Biologist	Clean Water Act Compliance, Wetlands, Vegetation
Ms. Donna Strait	Reclamation	Secretary	Visual Identity, Editing

Chapter 7: Acronyms and Abbreviations

APE	Area of Potential Effects
Bighorn BMP	Bighorn Archaeological Consultants, LLC Best Management Practices
Company CWMA	St. John Irrigating Company Cooperative Weed Management Areas
EA ESA	Environmental Assessment Endangered Species Act
FONSI	Finding of No Significant Impact
IAC IPaC	Idaho Administrative Code Information for Planning and Conservation
NEPA NRHP	National Environmental Policy Act National Register of Historic Places
Project PVC	St. John Canal Enclosure Project polyvinyl chloride
Reclamation	Bureau of Reclamation
SHPO	Idaho State Historic Preservation Office
TMDL	Total Maximum Daily Load
USFWS	U.S. Fish and Wildlife Service

Chapter 8: References

Baxter, Jon R. 2016. A Cultural Resource Inventory for the Proposed St. John Irrigating Company Improvement Project, Oneida County, Idaho. Bighorn Archaeological Consultants, L.L.C. Orem, Utah.

E. J. Pluhowski. (1970). *Hydrology of the Upper Malad River Basin, Southeastern Idaho. Geological Survey Water – Supply Paper 1888.*
<http://pubs.usgs.gov/wsp/1888/report.pdf>

Idaho Department of Health and Welfare, Division of Environment April 1983. Water Quality Status Report. Report No. WQ-52. Little Malad River Drainage Above Daniels Reservoir (Oneida County, Idaho 1981-1982.
https://www.deq.idaho.gov/media/434992-wqs52_little_malad_river_drainage_1983.pdf

St. John Irrigating Company. (2008). *Daniel's Reservoir Pipeline Study.*

USDA – United States Department of Agriculture (1983). *Idaho Cooperative Irrigation Study; St. Johns System – Part II.* USDA, Washington DC.

U.S. Fish & Wildlife Service. (2016, February 10). *IPaC – Information, Planning, and Conservation System.*

Appendix 1

FEBRUARY 7, 2015

Annual Meeting of St. John Irrigating Company.
Held at Oneida County Shed. Board members present:
Ron Blaisdell, Lloyd Briggs, Travis Palmer, Brett Rose, Mark
Deterson. Andy Kung, watermaster also present. Lane Pierce
of Transon Civil Engineers, Inc. present to explain
Application for Grant Money for pipeline.

Ron opened meeting. Mark read minutes of years previous
meetings. Travis made motion to accept minutes. Ron
seconded. motion passed to accept minutes as read. Lloyd
read Financial Statement. Mark made motion to
accept Financial Statement. Travis seconded. Statement
accepted as read.

Ron introduced Lane Pierce to stockholders. About
25 stockholders present. Lane explained process to apply
for grant money. Pipe will start at Mately Hollow.
There will be a 30" line from John Evans Road down
to where Lloyd Briggs and producers put water into their
gravity system and a 20" line on down to Ron Blaisdell's.

The Bureau of Reclamation has received the application
for the Grant. Irrigation Co. has to have matching funds
to receive Grant money. There was a discussion on
money, types of pipe that can be used and questions how
the pipeline will be paid for. It is estimated that
there will be about 15% water savings with this
section of pipe. Also talked about was getting
easements from landowners whose property the pipeline
will run through. Easements need to be free. An unofficial
vote showed that about 20 out of the 25 at the
meeting was in favor of the pipeline. Feb 5 - 3313 am put

Ron closed meeting. in Reservoir
Executive Meeting, after stockholder meeting. February 7, 2015
Andy Kung put in bid for watermaster for 2015.

(cont. from previous page)

Andy's bid was for \$11,500. Mark made motion to accept bid. Travis seconded. Board agreed. Andy will be watermaster for 2015 water year.

Brett made motion to put David Talbot on water board. Board agreed. David accepted.

Brett made motion to keep some Board members. motion passed. Board officers will stay the same for 2015. Lloyd paid Board members for labor performed during 2014. Meeting adjourned.

April 21, 2015

Water meeting at R's canal. Board members present: Ron, Lloyd, Dave Talbot, Brett Ross, Austin Stubbs, Travis Palmer and Mark. Andy King, watermaster also present.

Andy stated there was 4110 acre feet in Reservoir as of April 20, 2015. 100" of water springing up below Reservoir. down from 175" the year before. Watermaster told to only open gate on dam up to 8 threads to see if it will help with water loss.

Brett motioned to go 30% water allocation for this year. Board agreed. motion passed.

April 30, 2015

Andy, watermaster opened Reservoir at 8 P.M.

May 26, 2015 - Pipeline Phase 1

Water meeting at R's canal. Board members present: Ron, Mark, David, Brett, Austin, Lloyd. Andy, watermaster also present. Meeting to discuss pipeline project. We have been told we can get a 1 million dollar grant but we need to get a loan for 1.4 million dollars (approximate) to go with it. (\$1,429,775). If 20 year loan on that amount at 3.5% would cost about \$350 per share per year.

(cont. from previous page)

Motion was made to have Lane Pierce represent water Company in process of Loan Application and design of pipeline system and making contacts. Tozd made motion, Brett recorded. motion passed. meeting adjourned.

JUNE 10, 2015

Water meeting in Soil Conservation Office. Board members present: Ron, Austin, Brett, David, Tozd, Travis, Mark. Board met with Lane Pierce of Fransom Engineers. Talked about 1 million dollar grant. First step to receive grant is to have a stockholders meeting in June with stockholders voting yes for pipeline. Second step to go to State meeting in Post Falls to try and get 1 1/2 million dollar loan from State.

Meeting suggested for June 29 at Fire Station. Letters need to be sent to all stockholders along with a proxy informing them of the meeting.

JUNE 29, 2015

Special water meeting at Fire Station. Meeting is to vote to see if stockholders are in favor of putting in a pipeline to help from losing water in ditch. Water Board present along with watermaster, Hody. Lane Pierce of Fransom Engineering and co-worker Alex along with Manuel of NRCS.

Ron opened meeting. People come to meeting, signed in and received ballot to vote yes or no on pipeline. Manuel from NRCS talked to group. He said that water started going down in 1981 in Reservoir storage. He also said flood irrigators can still flood with a pressurized system. Lane Pierce gave presentation and explained procedure in procuring million dollar grant and a 1.5 million dollar loan. Stockholders asked questions to Hody, watermaster, Lane and Manuel.

Stockholders then voted. After stockholders finished voting Board members counted votes.

SHARES VOTED YES
226.8622

SHARES VOTED NO
6.1547

TOTAL SHARES VOTED 233.0169

Vote on pipeline passed.

Meeting adjourned.

July 1, 2015

Filled out and sent in Annual Report to Secretary of State in Boise.

July , 2015

Ron and Logel went to Post Falls to secure loan for pipeline. Lane Pierce met them there. Met with State Water Board.

August 7, 2015

Water meeting at Soil Conservation Office. Board members present: Ron, Logel, Brett and Mark. We met with Lane Pierce and his associate Alex of Fransum Engineers. Lane explained what other things need to be done before anything else. (1) Environmental Impact Study (2) Cultural Resources study (such as Historic Bridge.) (3) after these are okayed the design phase can start. After discussion Ron, Logel & Mark took Lane and Alex to look at ditch to see what was best route to bring pipeline down.

SEPT. 1, 2015

Water meeting at Ron's corral. Board members present: Ron, David, Brett, Travis, Austin, Logel & Mark. Andy, watermaster

also present. Discussed the route the pipeline will go.
Pipeline starts at Melcoy and goes to Ron Blaisdell's.
Sept. 11, 2015

Ron Blaisdell signed contract for tract money with
Bureau of Reclamation.

Sept. 16, 2015

Andy shut Reservoir off for water season. 1385 acre
feet in Reservoir.

September 21, 2015

Board meeting at Soil Conservation Office. Board members
present: Ron, Brett, Toyd, Mark, Andy waterworks also
present. Austin also present. Board met with Lane Pierce,
engineer. Discussed getting easements from landowners
and route of pipeline. Brett Rose made motion to sign
contract with Troasem Engineering company. Seconded
by Toyd Briggs. Motion passed.

September 23, 2015 7 P.M.

St. John Dredging Company meeting.

Ron called meeting to order. Toyd talked about the cost
of the pipeline including grants and loans. 20 year loan
at 3.5% interest amounts to \$105,000 payment per year.
It will increase the annual assessment by \$350 per share.
This was discussed by those in attendance. Lane Pierce
talked about what would take place if we went over the
2.4 million. We would remove laterals as needed to
stay in Budget. Ron talked about the layout of the
pipeline and the landowners that would be affected
by the pipe.

Lane said the company would not pay for an easement
through private land because it is not cost effective. We
will go around any ground that will not give an easement.
We had discussion about when the project would start,

what will be done with the old canal and how much pressure would be available at different points in the system. The screening system was discussed and how the water would be metered and at what points.

Ron brought up livestock water. It was discussed and proposed to do away with any livestock water that is now being used. The system is not set up for it and more water would be saved if it was not provided. Meeting adjourned at 8 P.M. Those in attendance were Ron, Lloyd, Travis, Austin, Brett, David. Hardy, watermaster and Lane Pierce and many water users of the company.

November 3, 2015

Board meeting at Ron's canal. Board members present: Ron, Lloyd, Travis, David, Brett, Austin, Mark. Ron opened meeting.

Discussed what water assessment to charge this year.

\$.160 per share was suggested. Travis made motion for \$.160. David seconded. Motion passed unanimously. Easements for pipeline are being worked on. Lloyd said he received a bill from Francom Engineering for \$29,504. Talked about having Hardy, watermaster check on construction of pipeline as it goes along.

The subject of livestock water was brought up when pipeline is installed. A motion to do away with livestock water was made by Brett, seconded by Travis. Motion voted on and passed.

December 15, 2015

Water Board meeting at Soil Conservation Office.

Board members present: Ron, David, Brett, Austin, Lloyd and Mark. Hardy, watermaster also present. Lane Pierce, pipeline engineer present also.

Talked about easements that we need and easements that we already have consent for. Talked about putting

pipeline along county road from Justin Edwards corral south and east past Brett Rose ground continuing east along gravel road. Justin called Commissioner Dale Tubbs and ask if it would be possible to follow road and Dale said he couldn't see a problem with the route.

Lane stated that an Environmental Assessment has to be done. Lane will take care of this.

Talked about pipe suppliers. Valley Implement, Brett Cordingly, Irrigation Eight, names brought up.

Andy stated there was about 2500 acre feet in Reservoir on December 1, 2015. Meeting adjourned.

January 11, 2016

Ron, Loyd and Mark met with Okeoka County Commissioners at Okeoka County Court House to ask permission to put irrigation pipeline along oil road along by Steve Edwards place, down past Brett Rose's property over to Jeff Lane gravel road. Commissioners Max Firth, Dale Tubbs, Shellee Daniels.

Ron and Loyd explained the route for the pipeline. Dale said there was no problem crossing the gravel roads, more concerned with crossing the oil road. (There will be five crossings on the oil road.) Irrigation Company agreed to make sure crossings were filled in properly. Commissioners said they were in agreement with us to cross roads. Prosecuting Attorney wants something in writing that St. John Irrigation Company will fix oil road crossings.

Ron asked Commissioners if gravel road going up to Reservoir could be improved. Dale said they would work on it.

January 25, 2016

Meeting at Soil Conservation Office. Board members

present: Ron, David, Brett, Austin, Lloyd and Mark. Andy, watermaster also present. Lane Pierce of Trueman Engineering and Manuel of the Soil Conservation Office & Phil Foster of Valley Equipment. Manuel got a list of water users on the Sandridge ditch, Austin Stubbs, Mike Pray, Bill Ball, Blaine Blaisdell. Phil Foster was there to answer questions about pipe for the pipeline. Getting pipe ordered, delivered & unloaded and payments made on pipe. Pipe payment needs to be made within 10 days of delivery. Pipe can usually be manufactured and delivery can start about four weeks after ordering. Unloading can be done by us (the water company) or we can pay to have someone like Valley Equipment unload for us at additional cost.

Ron talked to Scott Blaisdell, County Road Foreman, and Scott told him the county charges \$1,000 per oil road crossing to fill in. We have to cross oil road at least 5 times with pipeline.

Lane had calculations on water for different sizes pipe.

Andy sends out 1600" from Reservoir to get 1100" delivered.

A system needs to have a meter for each turnout to measure water used accurately.

Lane suggested a Hydro Screen at head of pipeline. A screen that measures 5' x 16' costs \$16,000.

Discussed pipeline design and different screen designs.

Ron adjourned meeting.

February 6, 2016

Annual meeting of St. John Irrigation Company held at Oneida County Road & Bridge Building at 1 P.M. Board members present: Ron Blaisdell, Lloyd Briggs, Travis Palmer, Brett Rose, Mark Peterson. Watermaster, Andy Kung present. Tom Pierce of Transon Engineers also present. Stockholders present: Kirk Willis, Lou Anderson, Ronnie Gamble.

Ron opened meeting.

Mark read minutes of meetings of 2015 and January 2016.

Brett made motion to accept minutes as read. Lloyd seconded. Minutes accepted as read. Lloyd read Financial Statement.

Mark made motion to accept Financial Statement. Travis seconded. Motion to accept Financial Statement passed.

Meeting opened to discussion.

Ronnie Gamble asked why pipeline route didn't run across his property. Wanted to know how he is going to get water to his house and wants pipeline to go across his farmland and development ground.

Lou Anderson asked about getting water to his property.

Tom Pierce told us the loan payment on the borrowed money wouldn't be due until one year after completion of pipeline.

Andy, watermaster stated there was 2810 acre feet in Reservoir as of January 4, 2016.

Travis made motion to adjourn meeting, Mark seconded. Meeting adjourned.

~~Feb~~ February 6, 2016

Executive meeting held after Regular Annual Meeting.

Andy Kung put in bid for Watermaster for 2016 water year. Duties will include helping on pipeline when under construction. \$12,000 for regular watermaster duties plus \$5,000 for helping on pipeline (unloading pipe from trucks, ect.) Board all agreed. Vote taken and passed.

Lloyd paid Board Members for extra work done during 2015. Travis made motion to keep some officers for 2016. Brett seconded. Motion passed. Meeting adjourned.

February 8, 2016

Mark mailed updated Operation Plan for Daniels Reservoir to John Falk, Dam Safety Manager, of Water Resources in Boise.

February 17, 2016

Water meeting at Soil Conservation Office. Board members present: Ron, Lloyd, Brett, David, Austin, Mark. Andy, watermaster also present. Lane Pierce of Tronson Engineers also present.

Reason for meeting was to decide where outlets need to be placed along pipeline.

About 20 outlets will be needed.

Some Pressure Reducing Stations will be needed.

PRV (Pressure Reducing Valves)

Talked about screens where water goes into pipe.

Cost may be between \$20,000 and \$40,000 for screen

Lane will bring plans where valves need to be placed in a couple of weeks.

Meeting adjourned.