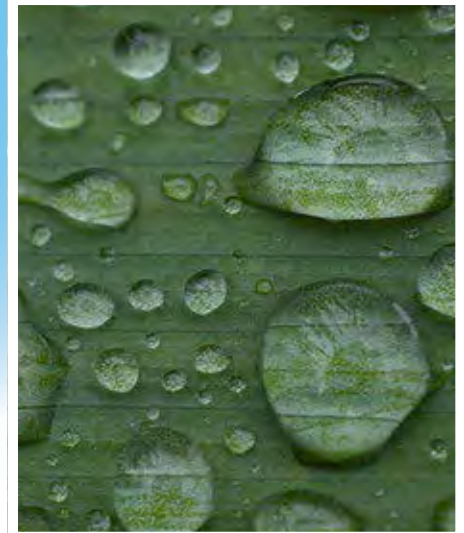




Bureau of Reclamation  
WaterSMART Small-Scale Water Efficiency Projects  
No. R24AS00059, FY 2025

# Clearfield Irrigation Company Canal Improvement Project

– PHASE I –



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## Table of Contents

<b>Technical Proposal and Evaluation Criteria .....</b>	<b>1</b>
Executive Summary.....	1
Applicant Information.....	1
One Paragraph Project Summary .....	1
Project Timeline.....	1
Federal Facility .....	1
Project Location.....	1
Technical Project Description.....	2
Evaluation Criteria.....	3
Evaluation Criterion A – Project Benefits.....	3
Evaluation Criterion B – Planning Efforts Supporting the Project .....	7
Evaluation Criterion C – Project Implementation and Results.....	8
Evaluation Criterion D – Nexus to Reclamation.....	9
Evaluation Criterion E – Presidential and Department of the Interior Priorities.....	9
Sub-criterion No. E.3. Tribal Benefits .....	12
Budget Narrative.....	12
Environmental and Cultural Resources Compliance .....	12
Required Permits or Approvals .....	13
Overlap or Duplication of Effort Statement .....	13
Conflict of Interest Disclosure Statement.....	13
Uniform Audit Reporting Statement .....	13
Certification Regarding Lobbying.....	13
Letters of Support for the Project .....	13

## Attachments

Attachment A – Project Location Map
Attachment B – Project Detail Map
Attachment C – CIC System Replacement and Rehabilitation Plan
Attachment C.1 – CIC System Replacement and Rehabilitation Plan Map
Attachment D – Budget Detail and Narrative
Attachment E – Clearfield Irrigation Company OPC
Attachment F – WBWCD Plan
Attachment G – Disadvantaged Areas Map
Attachment H – Letters of Support

## Technical Proposal and Evaluation Criteria

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### Executive Summary

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#### Applicant Information

**Date:** January 14, 2025

**Applicant Name:** Clearfield Irrigation Company

**City, County, State:** Clearfield, Davis, Utah

**Applicant Category:** Category A

**Requested Reclamation Funding:** \$125,000

**Total Project Costs:** \$255,050

#### One Paragraph Project Summary

*A summary that provides the location of the Project, a brief description of the work, any partners involved, expected benefits, how those benefits relate to the water management issues you plan to address, and what planning document and objective the Project supports.*

The Clearfield Irrigation Company (CIC), a vital water provider to nearly 100 users, including crucial agricultural food producers, is undertaking a rehabilitation Project to improve its water delivery system. The Clearfield Irrigation Company Canal Improvement Project is Phase I of a multiple-phase plan. Phase I will rehabilitate a deteriorating 24-inch corrugated metal irrigation mainline pipe in Clearfield, Utah. The Project involves slip-lining the existing pipe with an 18-inch High-Density Polyethylene (HDPE) pipe. This method will significantly enhance the pipe's durability, reducing water loss due to leaks and corrosion. The HDPE pipe will improve flow efficiency and minimize pressure drops. Slip-lining the pipe will minimize ground disturbance and service interruptions, reducing environmental impact and operational disruptions compared to traditional open-trench replacement methods. This Project addresses critical water management issues such as aging infrastructure, water loss, and the need for more sustainable and efficient water delivery systems. It aligns with CIC's System Replacement and Rehabilitation Plan objectives to improve the reliability and efficiency of the water delivery system.

#### Project Timeline

*State the length of time and estimated completion date for the proposed project (month/year).*

Assuming an agreement is in place with the Bureau of Reclamation by September 2025, the proposed Project will begin in September 2025 and will be completed by September 2026. The completion of all agreements will determine the exact timing of the Project, which will also be adjusted to accommodate the irrigation season.

#### Federal Facility

*Is the proposed project located on a Federal facility?*

Our Project is not located on a Federal facility. CIC receives water from Echo Reservoir, a Bureau of Reclamation facility.

#### Project Location

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*Detailed information on the proposed project location or project area including a map showing the geographic location.*

The Project is in Clearfield, Utah, approximately 32 miles northwest of Salt Lake City, Utah. The Project latitude is 112°2'43"W and the longitude is 41°6'54"N (*Attachment A – Project Location Map, Attachment B – Project Detail Map*).

## Technical Project Description

*Comprehensive description of the technical aspects of your project, including scope of work, approach for the on-the-ground project, detailed information about the project materials and equipment, what is currently installed, and a description of the upgrade being made.*

### Background:

The Clearfield Irrigation Company (CIC) serves nearly 100 water users, including vital agricultural food producers in West Point, Syracuse, and Clearfield, Utah (*Attachment A – Project Location Map*). Notably, this service area includes farms belonging to The Church of Jesus Christ of Latter-day Saints, which provide food for global humanitarian efforts. These users rely on CIC for irrigation, which is crucial for agricultural production. However, over the past two years, CIC has experienced significant water losses due to frequent breaks and disruptions within its irrigation system.

During the 2024 irrigation season, CIC experienced significant service disruptions when a mainline break occurred, flooding nearby roads. This incident resulted in the loss of service and caused significant traffic disruptions. Furthermore, CIC was forced to shut down the system for seven days for maintenance and three days for repairs during the irrigation season to manually clean out the pipes due to accumulated tree roots and other debris within the collapsed pipe sections. In addition, a local fiber-optic network company mistakenly installed their lines directly through the CIC pipes (*Figure 1*), causing an additional blockage.

These incidents have resulted in an estimated 885 acre-feet of water loss in the system, with 165 acre-feet of water loss within the Phase I Project area (*Figure 2*).

During these shutdowns, CIC was forced to bypass and divert water into drainage channels, rendering it unusable. These losses directly impact plant growth and crop yields, impacting the agricultural community, including the critical production schedules of The Church of Jesus Christ of Latter-day Saints welfare farms.

CIC developed a comprehensive System Replacement and Rehabilitation Plan to address these critical challenges in 2024. This plan includes a thorough assessment of the system, including video inspections. These inspections revealed various crucial issues, including pipe corrosion, broken pipes, interference from other utilities crossing the CIC pipeline, blockages caused by crumbling concrete and tree roots, and other unforeseen problems. While some of these issues were anticipated, the video inspections provided valuable insights into the extent of the system's deterioration and highlighted previously unknown concerns. These issues collectively impede water flow, resulting in significant water loss and increasing the risk of flooding in residential areas.

This Project will address these issues by slip-lining a deteriorating 24-inch corrugated metal mainline pipe with an 18-inch High-Density Polyethylene (HDPE) pipe. Slip-lining will significantly enhance the pipe's durability, reducing water loss due to leaks and corrosion. The smoother interior of the HDPE pipe will improve flow efficiency, minimizing pressure drops and ensuring adequate water delivery to all users. Furthermore, slip-lining minimizes ground disturbance and service interruptions, reducing environmental impact and operational disruptions compared to traditional open-trench replacement methods.

The CIC serviced agricultural network plays a vital role in food security. Approximately 55 percent of the farms CIC services are dedicated to cultivating essential staple crops, such as beans, corn, and wheat, destined for processing at canneries. These facilities are instrumental in supplying crucial food resources to welfare programs operating locally and globally. Furthermore, these farms produce essential alfalfa hay that supports livestock agriculture, a foundational element of the broader food ecosystem.

Figure 1: Major damage to pipe

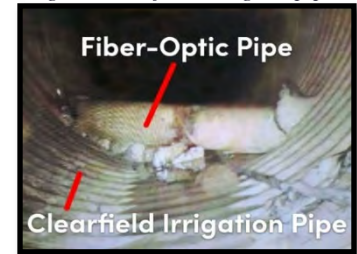


Figure 2: 2024 CIC Water Loss

	Water Loss (Entire System)	Water Loss (Phase I Project Area)
Flow Rate	23 cfs	7.7 cfs
Annual Volume	6126 ac-ft	2042 ac-ft
Shut Down Days	10 (7 days for maintenance and 3 for repairs)	
Water Loss From Shut Down	456 ac-ft	152 ac-ft
Water loss From Seepage 7%	429 ac-ft	13 ac-ft
<b>Total Loss</b>	<b>885 ac-ft</b>	<b>165 ac-ft</b>

## The Project:

This is Phase I of a multiple-phase project developed through CIC’s System Replacement and Rehabilitation Plan. The 700-foot section of damaged and deteriorating 24-inch corrugated metal pipe along 1000 West in Clearfield, Utah, is the highest priority for rehabilitation. This area shows significant deterioration and damage to the original pipes installed approximately 61 years ago (*Attachment B – Project Detail Map*).

This Project involves installing an 18-inch diameter High-Density Polyethylene (HDPE) pipe using the slip-lining technique within the existing 24-inch corrugated metal pipe. By using the slip-lining technique, this Project will accomplish the following:

- **Reduced Excavation:** Minimize ground disturbance and associated environmental impacts.
- **Minimal Traffic Disruption:** Limit traffic congestion and delays during construction.
- **Faster Construction Time:** Slip-lining typically results in shorter project timelines compared to open-trench methods.
- **Cost-Effectiveness:** Slip-lining can be more economical than traditional replacement methods, especially in areas with limited space or challenging ground conditions.

## Evaluation Criteria

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### Evaluation Criterion A – Project Benefits

#### *E.1.1. Evaluation Criterion A. Project Benefits*

*Explain the anticipated water management benefits to the Category A applicant's water supply delivery system and water customers.*

Completing this Project aims to benefit the water supply delivery system and water customers in the following ways:

- **Reduced Water Loss:**
  - **Minimized Leaks:** Slip-lining will significantly reduce water loss due to leaks and corrosion in the existing corrugated metal pipe.
  - **Improved Flow Efficiency:** The smoother interior of the HDPE pipe will minimize pressure drops, ensuring more efficient water delivery to all users. This translates to less water wasted due to system inefficiencies.
- **Improved System Reliability:**
  - **Reduced Disruptions:** Slip-lining minimizes ground disturbance and service interruptions compared to traditional open-trench replacement. This means fewer disruptions to water service for agricultural users, allowing them to continue their operations with minimal impact.
  - **Enhanced Durability:** The HDPE pipe offers significantly greater resistance to corrosion and deterioration than the existing corrugated metal, ensuring a more durable and long-lasting water delivery system.
- **Improved Water Management:**
  - **Enhanced Water Availability:** By reducing water loss and improving system efficiency, this Project will contribute to better water management practices and ensure greater water availability for agricultural and other uses within the service area.
- **Economic Benefits:**
  - **Reduced Maintenance Costs:** A more reliable and efficient system will require less frequent maintenance and repairs, leading to long-term cost savings for CIC.
  - **Improved Agricultural Productivity:** Reduced water loss and improved water delivery will enhance agricultural productivity, benefiting farmers and the local economy.

These benefits will provide CIC and its users with a more efficient, sustainable, and reliable water delivery system.

*Explain the significance of the anticipated water management benefits for the Category A applicant's water delivery system and customers.*

– *Are customers not currently getting their full water right at certain times of year?*

This Project is vital to CIC's water delivery system and its users, particularly considering Utah's increasing water scarcity. The 2022 mega-drought served as a stark reminder of this vulnerability. The City Journal, Davis County's community newspaper, reported in April 2022 that the Weber Basin Water Conservancy District reduced agricultural contracts by 40 percent in 2022. While restrictions have eased, the memory of these limitations and the ongoing concern about below-average reservoir levels emphasize the critical need for CIC to be proactive in water management solutions. The Project will be the vital first step in meeting that need.

– *Does this project have the potential to prevent lawsuits or water calls?*

This Project can potentially prevent or mitigate future lawsuits by demonstrating a commitment to sustainable water use and contributing to regional conservation efforts. By reducing water loss and improving system efficiency, the Project minimizes CIC's impact on overall water consumption, addressing concerns raised by environmental groups regarding deteriorating irrigation systems and possible over-allocation of water to agriculture.

The 2022 drought, which saw the Great Salt Lake reach a historic low, underscored the interconnectedness of water resources within the state and ignited fierce debate over water allocation between various stakeholders, including environmental groups, farmers, urban communities, and industries. By proactively addressing water conservation and minimizing CIC's water loss, we can demonstrate responsible water stewardship, fostering a more collaborative environment and reducing the risk of future conflicts and potential legal challenges.

– *What are the consequences of not making the improvement?*

The consequences of not making this improvement are significant and will have a negative domino effect. Water loss, blockages, and service interruptions jeopardize agricultural production, impacting farmers and the broader community. Reduced crop yields diminish food production for both local consumption and the vital global humanitarian efforts of The Church of Jesus Christ of Latter-day Saints. Moreover, the 2022 drought, which witnessed the unprecedented decline of the Great Salt Lake, underscored the interconnectedness of water resources within the state. Continued neglect of the aging infrastructure will exacerbate these issues, potentially leading to further water shortages, increased conflicts between water users, and a decline in agricultural productivity that could have far-reaching consequences for the local economy and the region's food security.

– *Are customer water restrictions currently required?*

As of January 2025, Davis County does not mention current water restrictions. However, according to the U.S. Drought Monitor for Davis County, the county remains in a stressed drought climate. CIC must remain proactive in improving its system to be prepared for when extreme drought conditions and water restrictions return.

– *Other significant concerns that support the need for the project.*

Given that the service area includes farms belonging to The Church of Jesus Christ of Latter-day Saints, which provide food for global humanitarian efforts, the following significant concerns arise regarding the need for this Project:

**Disruption to Humanitarian Food Production:**

– **Delays in Crop Production:** As experienced in 2024, frequent system disruptions can significantly delay critical irrigation schedules. This can impact crop growth, potentially leading to reduced yields or crop failure.

- **Disruption of Canning Operations:** Delayed crop harvests due to irrigation issues can disrupt the carefully planned schedules of the canneries that process the food for distribution. This can lead to inefficiencies in the food production and distribution chains, potentially impacting the timely delivery of food aid to those in need.
- **Compromised Food Quality:** Water shortages or inconsistent water delivery can negatively impact crop quality, potentially reducing the nutritional value of the produce and affecting its suitability for long-term storage and distribution.

**Impact on Global Humanitarian Efforts:**

- **Reduced Food Availability:** Reduced crop yields due to irrigation problems directly impact food availability for global humanitarian aid programs. This can have significant consequences for individuals and communities facing food insecurity globally.
- **Disruption to Relief Efforts:** Delays in food production and distribution can disrupt the timely delivery of aid during emergencies, potentially exacerbating humanitarian challenges.

By addressing the issues within the existing system, this Project will improve water delivery for local agricultural producers and contribute to the continued success of The Church of Jesus Christ of Latter-day Saints humanitarian efforts in providing food aid to those in need globally.

*Broader Benefits: Describe the broader benefits that are expected to occur as a result of the project. Consider:*

- *Will the proposed project increase collaboration and information sharing among water managers in the region? Explain.*  
Yes, this Project can potentially increase further collaboration and information sharing among regional water managers. Building upon existing communication with Davis and Weber Counties Canal Company (DWCCC) and Weber Basin Water Conservancy District (WBWCD), the successful implementation of this Project, focusing on water conservation through slip-lining, will serve as a model for other water providers. Sharing project data and best practices will further enhance this collaboration, fostering a regional dialogue on water conservation and contributing to more effective and sustainable water management strategies for the entire region.
- *Is the project in an area that is experiencing, or recently experienced, drought or water scarcity? Will the project help address drought conditions at the sub-basin or basin scale? Please explain.*  
The Project is located in Davis County, a dry, arid climate where regular drought conditions continue to plague the region. Maximizing water retention within the system directly combats drought conditions in the project area and surrounding basins, supporting ecosystem health by ensuring greater water availability.

**Drought, Water Reduction, and Water Loss**

- **Drought:** According to the U.S. Drought Monitor, Davis County, Utah, has experienced multiple periods of extreme drought conditions since January 2000. Prolonged droughts reduce water levels in reservoirs and rivers, impacting agriculture, industry, and domestic water supplies. CIC aims to reduce water loss in our system to be part of a broader solution to drought conditions in Davis County.
- **Water Reduction:** The 2022 mega-drought, as reported by the Davis County News (April 8, 2022), exposed Utah's water vulnerability, resulting in severe restrictions, including a 40% cut for many secondary and agricultural users and a shortened irrigation season by a month. This devastated local agricultural resources, impacting food and livestock feed production. While restrictions have eased, ongoing concerns about reservoir levels underscore the critical need for proactive water management, making this project vital for CIC and its users to ensure efficient water delivery.
- **Water Loss:** Damaged and blocked pipes in the CIC system contribute to both water loss and flooding, exacerbating drought conditions. In 2024, the CIC system lost 885 acre-feet of water, including 165 acre-feet within the Phase I Project area. Completing this project will directly

address drought by eliminating this water loss and promoting more efficient water use in our system.

### **Water Scarcity Factors in Davis County, Utah**

- **Population Growth:** The CIC service area, encompassing West Point City, Syracuse City, and Clearfield City, has experienced significant population growth, a well-documented strain on water sources in residential and business areas, particularly during droughts. Clearfield, the Project's location, exemplifies this trend. According to an article by Deseret News on May 24, 2024, Clearfield ranked as the third-fastest growing city in Davis County. Completing this Project will help reduce water loss in the local area.
- **Lack of Groundwater Recharge:** Over the past decade, Davis County, particularly in the southern portions, has experienced increasing drought impacts. This includes increased reliance on groundwater pumping, leading to aquifer depletion and ground subsidence in areas closer to the Great Salt Lake, such as Woods Cross. In Woods Cross, excessive groundwater extraction has resulted in significant ground subsidence, impacting over 200 homes. This serves as a stark reminder of the interconnectedness of water resources within the region and the critical need for sustainable water management practices.
- **Insufficient Regular Snowpack Levels:** The snowpack level of 2023 partially replenished our basins, providing some relief to the severe, extreme, and exceptional drought conditions experienced from 2020 through 2022. However, Utah's climate has a history of extended drought cycles, regularly causing water restrictions throughout the state.

The Project will allow CIC to utilize water efficiently, positively impacting water resource conservation. It will also allow the sub-basin and basin to hold water longer, contributing to water security throughout the ecosystems and water resources the basins serve.

– *Will the project benefit federally threatened or endangered species?*

According to the Utah Bureau of Land Management Sensitive Wildlife Species List, December 2018, the following fish species are listed as "Candidate Species" in the Davis County, Utah area, which means they are listed as threatened or endangered but are currently precluded by higher priority listing activities: the Bluehead Sucker, Bonneville Cutthroat Trout, and Least Chub.

Conserving water in our rivers and reservoirs through improvements to CIC's system directly benefits the entire watershed and is essential for the survival of threatened and endangered species. This conserved water helps maintain vital river levels, particularly during the late-summer spawning season when these species are most vulnerable to low water conditions.

– *Will the proposed project positively impacts/benefit various sectors and economies within the applicable geographic area?*

These improvements are crucial for sustaining our highly productive farms and ensuring a stable food supply, maintaining the delicate balance between local agricultural production and far-reaching social welfare programs. The improvements will also protect vital ecosystems and wildlife habitats through any tail-water that drains from our farms, including the shrinking Great Salt Lake and its neighboring ecosystems.

– *Will the project complement work being done in coordination with NRCS in the area?.*

Yes, this Project strongly complements ongoing efforts with NRCS. By improving the efficiency of the main water delivery system, this Project enhances the effectiveness of on-farm conservation practices, such as those supported by the NRCS EQIP program.

For example, many of the serviced farms utilize sprinkler irrigation systems. This Project will allow farmers to use their existing sprinkler systems more effectively, maximizing water application and reducing over-application by minimizing pressure drops and ensuring consistent water flow. This

improved water delivery directly supports the goals of NRCS programs, which aim to promote efficient water use and conservation practices within the agricultural sector.

## Evaluation Criterion B – Planning Efforts Supporting the Project

### E.1.2. Evaluation Criterion B. Planning Efforts Supporting the Project

*Plan Description and Objectives: Is your project supported by a specific planning document? Describe the plan.*

Yes, this Project is fully supported by the CIC System Replacement and Rehabilitation Plan developed in 2024 (*Attachment C – CIC System Replacement and Rehabilitation Plan*). Based on extensive video inspections of the existing irrigation system, this comprehensive plan identifies critical areas for improvement and outlines a prioritized approach to system rehabilitation.

The plan's primary objective is to improve the CIC water delivery system's reliability, efficiency, and sustainability. It aims to address critical issues such as pipe corrosion, blockages, and leaks contributing to significant water loss and system disruptions.

The plan incorporates a phased approach to system rehabilitation, prioritizing critical infrastructure areas and coordinating with other stakeholders, such as municipalities, to reduce disruptions and maximize efficiency (*Attachment C.1 – CIC System Replacement and Rehabilitation Plan Map*). For example, the plan includes opportunities to coordinate with West Point City, Utah during their planned road widening project to replace sections of the CIC pipeline concurrently, minimizing the impact of construction on both entities.

*Plan Development: Who developed the planning effort? Geographic scope of the plan?*

CIC conducted the planning effort for this Project in collaboration with J-U-B ENGINEERS, Inc. Stakeholders, including cities and local farmers, were actively involved. The plan's geographic scope encompasses the entire CIC service area. A multi-phase plan was developed through detailed assessments, including video inspections and engineering analysis, to address critical infrastructure needs within the service area. This Project constitutes the first phase of this comprehensive plan, targeting the highest priority section for rehabilitation. *Attachment C – CIC System Replacement and Rehabilitation Plan, C.1 – CIC System Replacement and Rehabilitation Plan Map.*

*Support for the Project: Describe to what extent the proposed project is supported by the identified plan. Consider:*

- *Is the project identified specifically by name and location in the planning effort?*  
Yes, this Project is specifically identified by name and location in the planning effort. The CIC System Replacement and Rehabilitation Plan, developed in 2024, explicitly identifies rehabilitating a 700-foot section of 24-inch corrugated metal pipe along 1000 West in Clearfield, Utah, as the plan's first phase. The plan outlines specific locations and the Project scope and further details them in Attachments C and C.1.
- *Is this type of project identified in the planning effort?*  
Yes, this Project is explicitly identified in the planning effort. The CIC System Replacement and Rehabilitation Plan recognizes slip-lining as a viable and effective method for rehabilitating deteriorating pipelines. The plan identifies the need to rehabilitate aging corrugated metal pipes, which are susceptible to corrosion and deterioration, and outlines slip-lining as a preferred method for their rehabilitation. *Attachment C – CIC System Replacement and Rehabilitation Plan, C.1 – CIC System Replacement and Rehabilitation Plan Map.*
- *Explain whether the proposed project implement a goal, objective, or address a need or problem identified in the existing plan.*  
The Project addresses several key goals and objectives outlined in the CIC System Replacement and Rehabilitation Plan. These include:
  - **Reducing water loss:** By rehabilitating the deteriorating pipe, the Project addresses the critical issue of water loss due to leaks and breaks.

- **Improving system reliability:** The Project aims to enhance the reliability and efficiency of the water delivery system by replacing aging and deteriorating infrastructure.
- **Addressing critical infrastructure needs:** The plan prioritizes this 700-foot section of pipe due to its significant deterioration and the associated risks of service interruptions and water loss.

– *Explain how the project has been determined as a priority as opposed to other potential projects/measures in the plan.*

The prioritization of this Project stems from the comprehensive CIC System Replacement and Rehabilitation Plan developed in 2024. This plan, informed by video inspections and stakeholder input, identified this 700-foot section of 24-inch corrugated metal pipe along 1000 West in Clearfield, Utah, as a high priority due to its history of frequent and significant service disruptions.

This section of pipe has experienced multiple extended shutdowns, impacting critical irrigation periods for farmers and jeopardizing crop yields. The plan prioritizes the rehabilitation of this section to improve system reliability, minimize water loss, and ensure the continued success of agricultural operations within the service area. This aligns with the overarching objective of the plan to enhance the reliability and efficiency of the water delivery system while minimizing disruptions to water users.

### Evaluation Criterion C – Project Implementation and Results

*E.1.3. Evaluation Criterion C. Implementation and Results:*

– *Describe the implementation plan for the proposed project. Include an estimated project schedule.*

Once an agreement is in place with the Bureau of Reclamation and all necessary environmental clearances are obtained, we plan to complete the Project within the two-year allotted timeframe. The Project timeline will be adjusted to accommodate the irrigation season, as pipe-lining activities will occur outside the irrigation season, typically from April 15 to October 15.

This timeline assumes the execution of the WaterSMART agreement by August/September 2025. If the agreement is not finalized by this date, the Project start date may be adjusted to October 2026, resulting in a corresponding shift in the overall Project timeline.

Milestone/Task	Timeline
Reclamation Agreement in place	August – September 2025
NEPA – Categorical Exclusion approved	August – October 2025
Final design	October – November 2025
Bidding and contractor under contract	November 2025 – January 2026
Construction	January 2026 – April 2026
Project completion	May – June 2026
Final report and Project close-out	August – September 2026

– *Proposals with a budget and budget narrative that provide a reasonable explanation of project costs will be prioritized.*

See Attachment D - Budget Detail and Narrative and Attachment E – Clearfield Irrigation Company Opinion of Probable Cost.

– *Describe any permits and agency approvals that will be required along with the process and timeframe.*

The Project requires the following permits and approvals:

- **City Permits:** The awarded contractor will obtain Clearfield City permits for excavation, traffic control, and right-of-way work.
- **Environmental Permits:** The Project will require a Cultural Resources Assessment and a Categorical Exclusion from the local Bureau of Reclamation office, demonstrating minimal environmental impact.

The Project team will work to obtain all necessary permits and approvals promptly to ensure the Project remains on schedule.

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- *Identify and describe engineering or design work performed supporting the proposed project. Include current and future design.*  
In September 2024, CIC procured J-U-B ENGINEERS, Inc. (J-U-B) to lead this Project's planning and design phases. J-U-B has completed the initial planning phase, including:
  - **Video Inspections:** Comprehensive video inspections of the existing pipeline were conducted to identify areas of deterioration, such as corrosion, blockages, and pipe defects.
  - **Preliminary Design & Cost Estimation:** Based on the video inspections and past project experience, preliminary designs for the slip-lining Project were developed, including material cost estimations.

Upon the award of the grant, J-U-B will proceed with the final design phase, which will include:

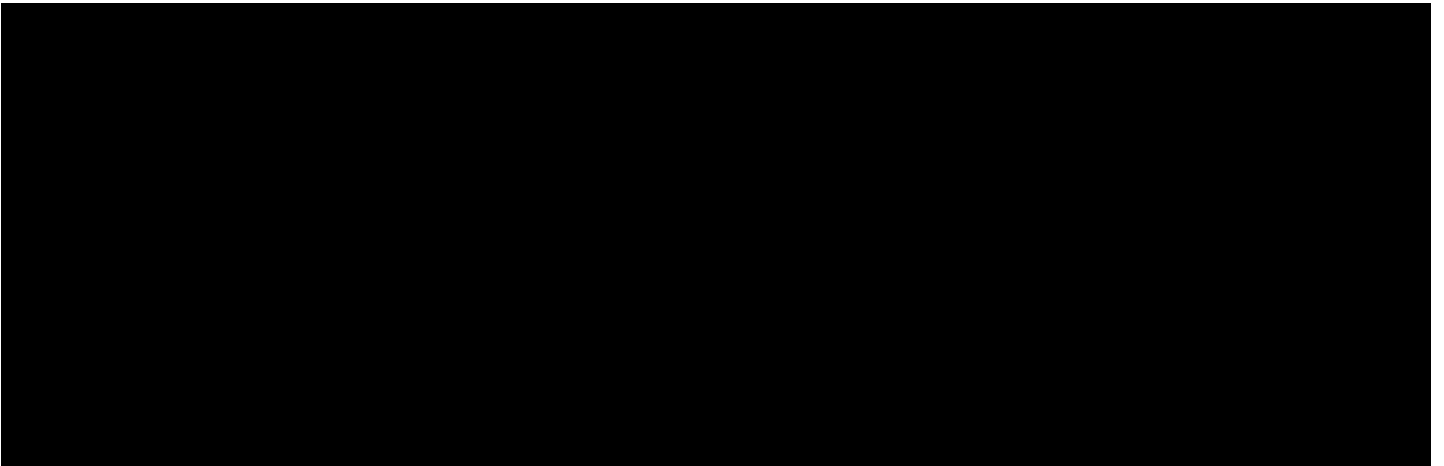
- **Development of detailed engineering plans and specifications:** This will encompass all aspects of the slip-lining Project, ensuring a thorough and accurate design.
  - **Preparation of construction documents:** This will involve creating comprehensive construction drawings, specifications, and bid documents for the Project.
  - **Limited construction management support:** J-U-B will provide limited support to ensure the Project is executed according to the design specifications and within the approved budget and schedule.
- *Does the applicant have access to the land or water source where the project is located? Are easements required for the project?.*  
No additional easements will be required.
  - *Has the applicant contacted the local Reclamation office to discuss the potential environmental and cultural resource compliance requirements for the project? Has a line item been included in the budget for costs associated with compliance?*  
Environmental costs associated with the proposed Project are included in the budget. The Project is anticipated to have minimal environmental impact and is located within existing road rights-of-way.

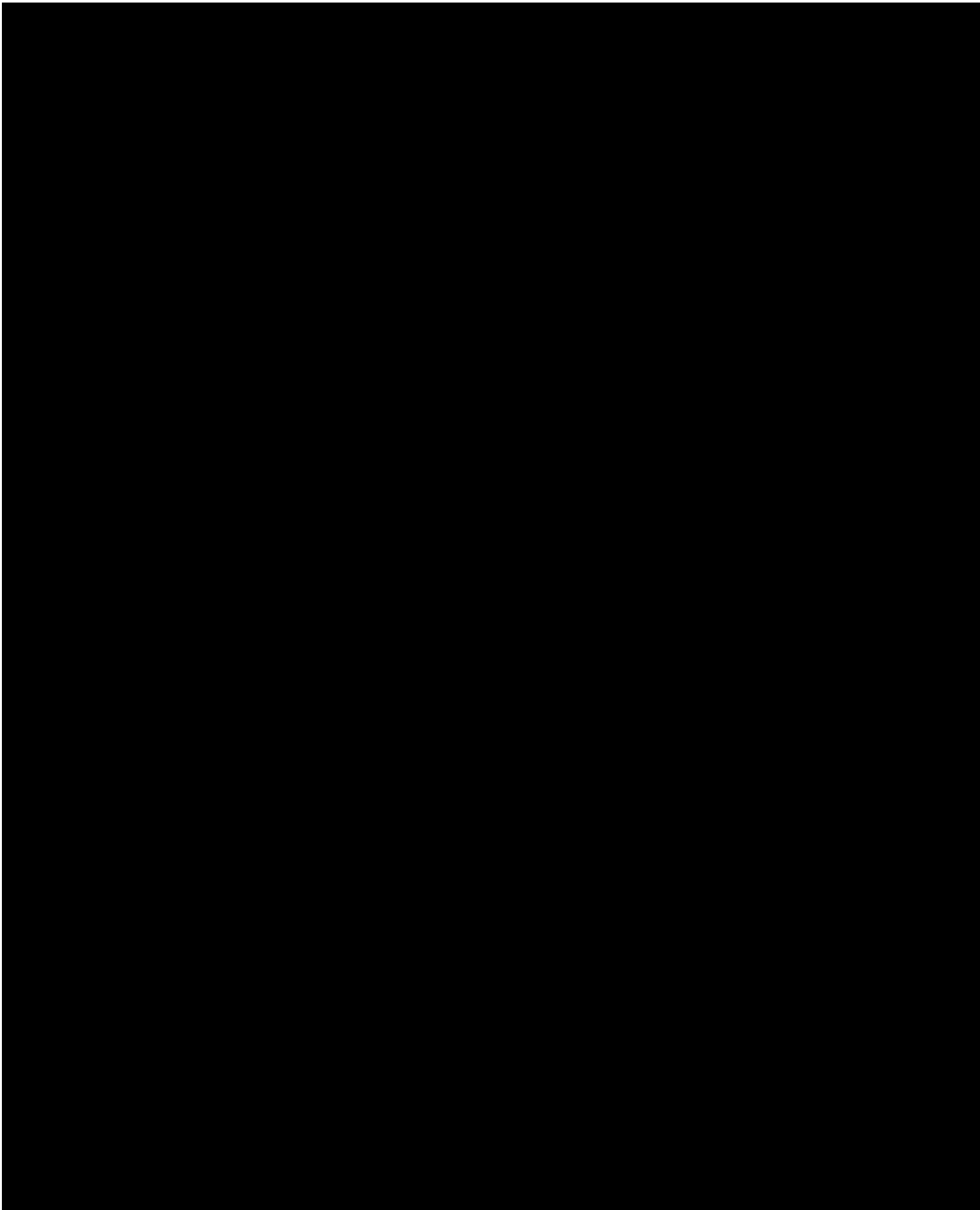
The Project requires a Cultural Resources Assessment and a Categorical Exclusion from the local Bureau of Reclamation (BOR) office to ensure compliance with environmental regulations. Based on experience with similar projects, the BOR office may require the applicant to conduct the Cultural Resources Assessment. Therefore, the budget includes provisions for this assessment.

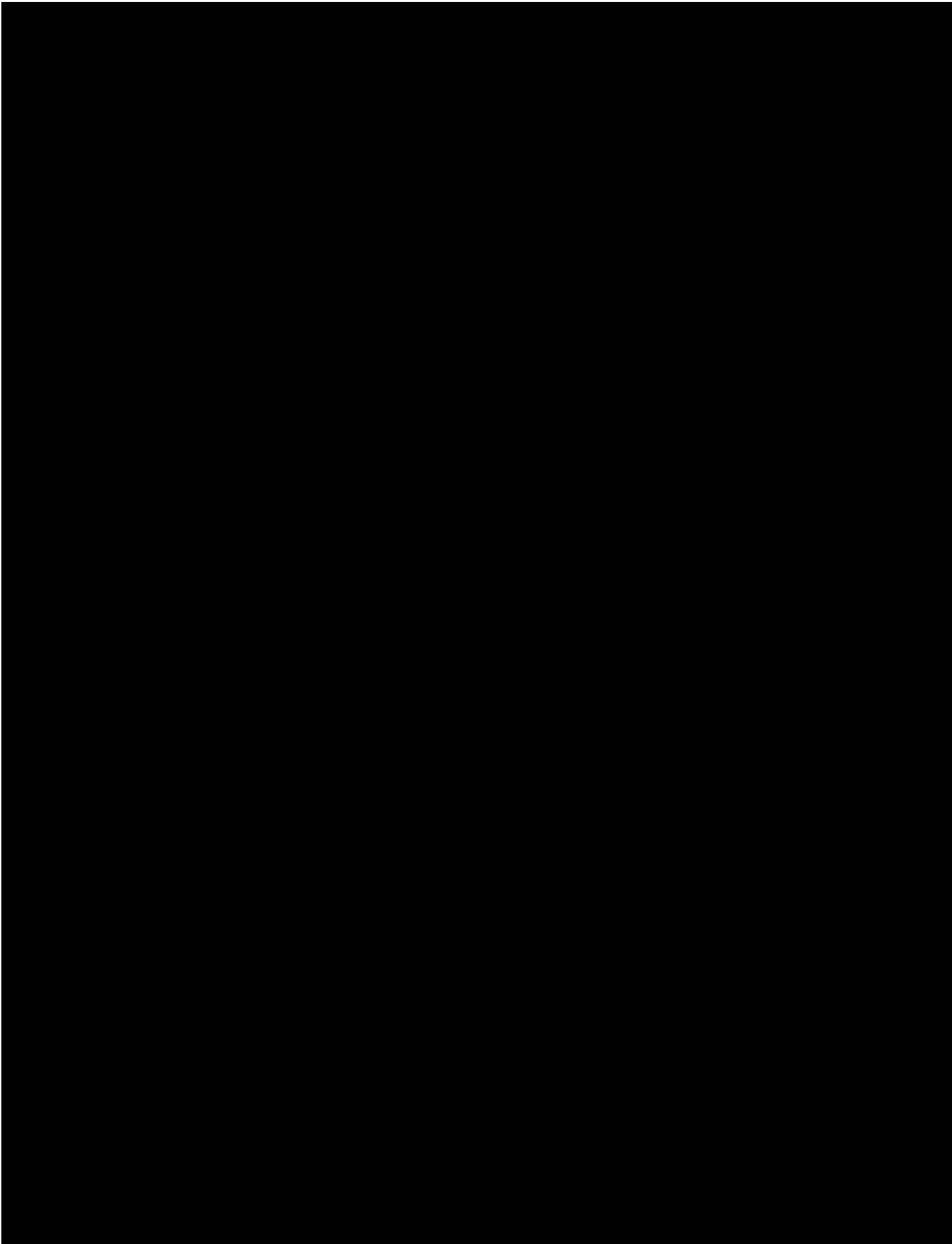
#### Evaluation Criterion D – Nexus to Reclamation

*E.1.4. Evaluation Criterion D. Nexus to Reclamation: Is the proposed project connected to a Reclamation project or activity? If so, how?*

- *Does the applicant have a water service, repayment, or operations and maintenance(O&M) contract with Reclamation?*  
The applicant does not have water service, repayment, or an O&M contract with Reclamation.
- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*  
Clearfield Irrigation Company receives its water through a service contract with the Davis and Weber Counties Canal Company, which sources its water from the Weber Basin Water Conservancy District, a component of the U.S. Bureau of Reclamation.
- *Will the proposed work benefit a Reclamation Project area or activity?*  
No.







## Budget Narrative

See Attachment D – Budget Detail.

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

Funding Sources	Amount
Non-Federal Entities	
1. Clearfield Irrigation Company	\$130,050
Requested Reclamation Funding	\$125,000

Table 2 – Total Project Cost Table

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$125,000
Costs to be paid by the applicant	\$130,050
Value of third-party contributions	\$0
<b>Total Project Cost</b>	<b>\$255,050</b>

## Environmental and Cultural Resources Compliance

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?*  
 Due to the minimal impact of the slip-lining procedure, it is anticipated that the Project will receive a Categorical Exclusion. All work will be within the existing utility manholes and pipeline.
- Briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area.*  
 CIC is unaware of any earth-disturbing work in the Project or surrounding areas. The work will positively affect the water flows through CIC's system and reduce the possibility of flooding due to blockage.
- 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?*  
 CIC is not aware of critical habitats in the Project area.

  - Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States"?*  
 CIC is not aware of any wetlands or other surface water impacts in the Project area.

- *When was the water delivery system constructed?*  
The irrigation canal was constructed in approximately 1964.
- *Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g. headgates, canals, or flumes)?*  
No.
- *Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?*  
No.
- *Are there any known archeological sites in the proposed project area?*  
CIC is not aware of any known archeological sites in the proposed Project area.
- *Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?*  
No, the proposed Project will not have a disproportionately high and adverse effect on low-income or minority populations.
- *Will the proposed project limit access to, and ceremonial use of, Indian sacred sites or result in other impacts on tribal lands?*  
No.
- *Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?*  
No.

### Required Permits or Approvals

---

*State whether any permits or approvals are necessary and explain the plan for obtaining such permits or approvals.*

The Project requires the following permits and approvals:

- **City Permits:** The awarded contractor will obtain Clearfield City permits for excavation, traffic control, and right-of-way work.
- **Environmental Permits:** The Project will require a Cultural Resources Assessment and a Categorical Exclusion from the local Bureau of Reclamation office, demonstrating minimal environmental impact.

The Project team will work to obtain all necessary permits and approvals promptly to ensure the Project remains on schedule.

### Overlap or Duplication of Effort Statement

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There are no overlap or duplication of efforts at the time of submission.

### Conflict of Interest Disclosure Statement

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There is no actual or potential conflict of interest at the time of submission.

### Uniform Audit Reporting Statement

---

Clearfield Irrigation Company has never received Federal funds and has not been required to submit a Single Audit Report.

### Certification Regarding Lobbying

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Please see the GG Lobbying Form V1.1 Certification Regarding Lobbying.

### Letters of Support for the Project

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*Attachment H – Letters of Support*

- Ryan Mills, Water Superintendent, Syracuse City
- Neal Briggs, Owner, Neal Briggs Farms
- John Green, Layton Farms Manager, Church of Jesus Christ of Latter-day Saints

## ATTACHMENT C

### Clearfield Irrigation Company (CIC)

#### System Replacement and Rehabilitation Plan

The Clearfield Irrigation Company's System Replacement and Rehabilitation Plan serves as a critical framework to ensure the company's infrastructure's reliability, efficiency, and sustainability. This plan outlines the systematic replacement of aging or inefficient components. By proactively addressing potential issues, CIC aims to minimize service disruptions, increase water conservation, optimize water delivery, and extend the lifespan of its assets. Through collaborative efforts and a clear operational plan, CIC strives to provide consistent and high-quality irrigation services that meet the needs of its stakeholders now and in the future.

The Table 1 of projects outlines the priority initiatives identified by CIC to enhance water management and agricultural productivity. Each project has been evaluated based on its potential impact, feasibility, and alignment with the company's strategic goals. The table includes project location, description, and estimated costs. These projects focus on improving irrigation efficiency, water conservation, and implementing modern technologies.

*Table 1. Project Priorities*

	Location	Description	Quantity	Cost
1	1000 West between 300 North and SR-193	Replacement of Existing Corrugated Metal Pipe	700 ft of 18-inch HDPE pipe	\$255,050
2	700 South between 2125 West and 2325 West	Replacement of Existing Corrugated Metal Pipe	600 ft of 18-inch HDPE pipe	\$180,000
3	700 South 1400 West	Replacement of Existing Corrugated Metal Pipe	140 ft of 18-inch HDPE pipe	\$45,000
4	950 West 300 North	Replacement of Head Gate Controls	Three 24" Headgates	\$150,000
5	300 North between 2000 West and 4000 West	Relocation of Pipe Alignment	10,560 ft of 18-inch HDPE pipe	\$3,150,000
6	300 North between 300 East to RR crossing	Replacement of Existing Corrugated Metal Pipe	3,200 ft of 18-inch HDPE pipe	\$960,000

**ATTACHMENT E**

**J-U-B Engineers Inc. Opinion of Probable Cost**

**Clearfield Irrigation Company Canal Improvement Project - Phase I**

Item	Scenario Type:	Unit	Total Quantity	Engineer's Opinion of Probable Cost	
	Description			Unit Price	Amount
	<b>General</b>				
	Mobilization	EA	1	\$12,000.00	\$ 12,000.00
	General Subtotal				\$ 12,000.00
	<b>Pipe</b>				
	18" HDPE DR 32.5 Slipline	LF	700	\$39.00	\$ 27,300.00
	Jack and Bore Install	LF	700	\$130.00	\$ 91,000.00
	Grout	CF	962	\$21.00	\$ 20,202.00
	Furnish and Install Manhole	EA	3	\$11,765.00	\$ 35,295.00
	Pipe Subtotal				\$ 173,797.00
	<b>Miscellaneous</b>				
	Asphalt Surface Removal	SF	675	\$4.80	\$ 3,240.00
	Imported Fill	TON	189	\$62.00	\$ 11,718.00
	Asphalt Repair	SF	75	\$185.00	\$ 13,875.00
	Furnish Foundation Type A1	TON	44	\$55.00	\$ 2,420.00
	Miscellaneous Subtotal				\$ 31,253.00
	<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 217,050.00</b>
	Design				\$ 16,000.00
	Cultural/Environmental				\$ 4,000.00
	Construction Management				\$ 16,000.00
	Reporting Costs				\$ 2,000.00
	<b>TOTAL</b>				<b>\$ 255,050.00</b>



# 2018 DROUGHT CONTINGENCY PLAN



WEBER BASIN WATER  
CONSERVANCY DISTRICT

Prepared by:



J-U-B ENGINEERS, INC.



THE  
LANGDON  
GROUP  
a J-U-B Company



GATEWAY  
MAPPING  
INC.  
a J-U-B Company



# Key Stakeholder Interview Summary

Members of the Task Force and Advisory Groups were interviewed. Key themes and insights from these interviews are listed below. Key person interviews provided an understanding of the key drought concerns as well as potential strategies to mitigate the effects of drought and ways to respond to drought.

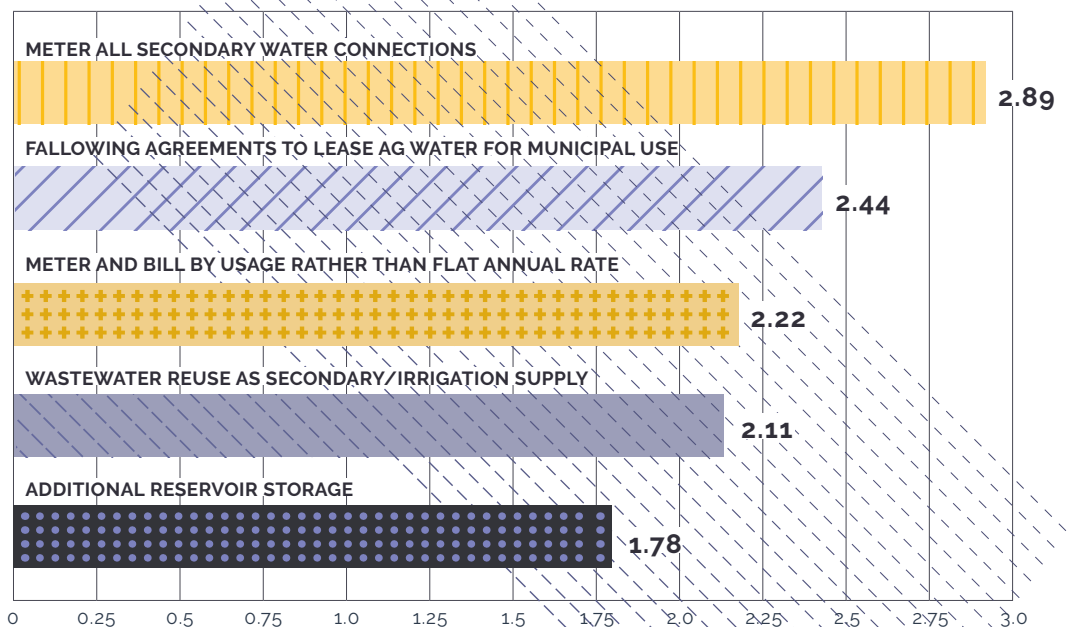
<b>INFRASTRUCTURE &amp; OPERATIONS</b>	<b>Maximizing the efficiency and capacity of the existing system through strategies such as improved metering, canal lining, aquifer storage and recovery and wastewater reuse will improve drought resiliency.</b>
<b>ENVIRONMENT</b>	<b>Water operations strategies such as pulsing water through the system during wet years or improving the connectivity of fish habitats should be evaluated and coordinated to minimize negative environmental impacts during droughts.</b>
<b>DATA, COMMUNICATION &amp; COLLABORATION</b>	<b>Improved communication and collaboration through strategies such as; public notification of current drought level status, delivery of water consumption reports to users, creation of water sharing agreements between water entities, interconnection agreements between cities and cooperation between all water users will improve drought resiliency and ability to respond to drought conditions.</b>
<b>DROUGHT WATER PRIORITIES &amp; RESTRICTIONS</b>	<b>A detailed drought plan is needed to prioritize water restrictions for future drought periods, set expectations with water users for drought responses and develop drought messaging.</b>

During the interviews, key stakeholders were asked to provide responses to a few key questions.

Some potential mitigation actions were presented and stakeholders were asked:

**"How would you prioritize the following drought mitigation actions?"**

## AVERAGE SCORE OF MITIGATION ACTIONS



The stakeholders responded **high**, **medium**, or **low**. The actions were then scored based on the following weighted average point system:

- High Priority = 3
- Medium Priority = 2
- Low Priority = 1

# ATTACHMENT H

January 6, 2025



Eric Schneider, President  
Clearfield Irrigation Company  
2550 W 700 S  
Syracuse, UT 84015

RE: Letter of Support for Clearfield Irrigation Company

Dear Mr. Schneider,

Syracuse City strongly supports Clearfield Irrigation Company's application for funding to rehabilitate and improve its system.

Syracuse City relies on Clearfield Irrigation Company to deliver secondary water to our reservoir, which serves a wide range of residential and business irrigation needs. This project focuses on vital infrastructure improvements with significant long-term benefits that will address critical infrastructure deficiencies, extend the lifespan of the entire irrigation system, and improve long-term system performance.

This funding represents a crucial investment in essential infrastructure, ensuring the long-term viability and reliability of both Clearfield Irrigation Company's and Syracuse City's systems.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ryan Mills", is positioned below the word "Sincerely,".

Ryan Mills  
Water Superintendent  
Syracuse City

January 6, 2025

Eric Schneider, President  
Clearfield Irrigation Company  
2550 W 700 S  
Syracuse, UT 84015

RE: Letter of Support for Clearfield Irrigation Company

Dear Mr. Schneider,

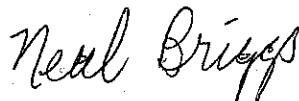
Neal Briggs Farms strongly supports Clearfield Irrigation Company's grant application for the proposed project to improve its irrigation system.

As a company directly reliant on Clearfield Irrigation Company's system for our irrigation water, we recognize the vital importance of this project. The consequences of inaction are significant. A failing irrigation system creates a cascading negative impact. Water loss, blockages, and service interruptions directly threaten agricultural production, harming both farmers and the wider community.

Our operations and the ability to provide viable agriculture crops stand to benefit significantly from this project. The proposed improvements address several key areas: reducing water loss by repairing leaks and inefficiencies within the aging infrastructure; extending the operational lifespan of the system, thereby mitigating the risk of costly emergency repairs; improving water flow to ensure consistent and adequate delivery to all users; and preventing potential flooding and resulting loss in irrigation water. These improvements will help strengthen confidence in the reliability of the irrigation water supply, which directly supports the viability and stability of their agricultural operations for the farms.

We strongly support your grant application and recognize the significant benefits it will provide to local farmers.

Sincerely,



Neal Briggs  
Neal Briggs Farms

January 6, 2025

Eric Schneider, President  
Clearfield Irrigation Company  
2550 W 700 S  
Syracuse, UT 84015

RE: Letter of Support for Clearfield Irrigation Company

Dear Mr. Schneider,

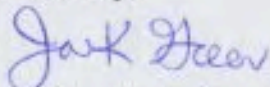
The Church of Jesus Christ of Latter-day Saints supports the Clearfield Irrigation Company's grant application for funding to improve and rehabilitate its system.

This project is crucial for sustaining local agricultural operations, which are vital to regional and broader food security. The Church of Jesus Christ of Latter-day Saints' welfare programs rely on stable food production by farms that receive irrigation water from Clearfield Irrigation Company. By addressing leaks and inefficiencies, this project will:

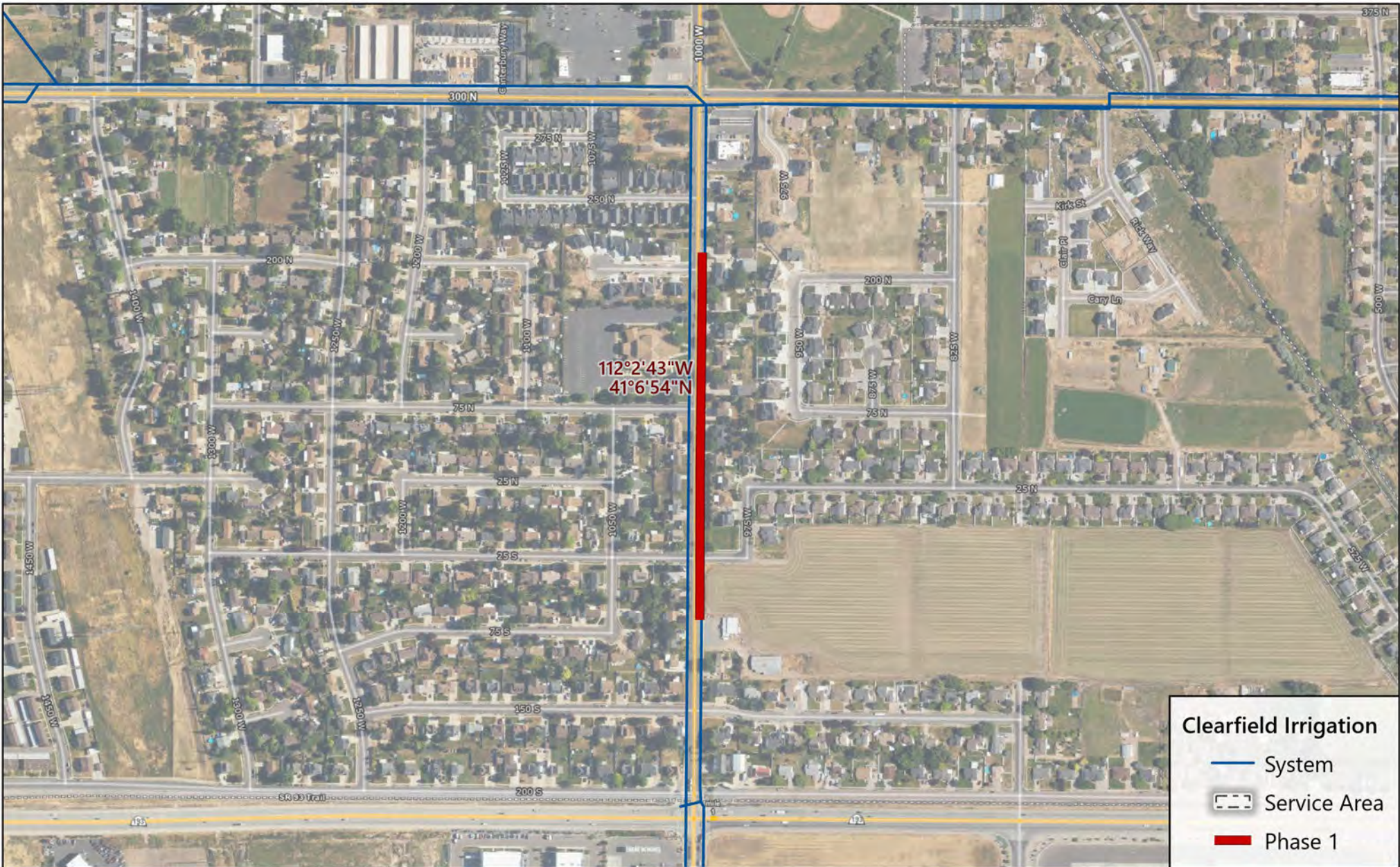
- **Secure water for local agriculture:** Reducing water loss ensures farmers have a reliable supply for successful harvests, maintaining local food production and supporting welfare programs offered by the Church.
- **Enhance agricultural productivity:** Improved water flow optimizes irrigation and maximizes yields, creating a more stable food supply.
- **Support food security and welfare:** A stable agricultural sector is crucial for food security, locally and globally. Reliable agricultural output directly supports the Church's welfare programs, which rely on accessible, affordable food.

In essence, this investment in critical infrastructure is an investment in the long-term health of local agriculture. It contributes to food security and directly supports The Church of Jesus Christ of Latter-day Saints welfare programs, which depend on a reliable food supply.

Sincerely,



John Green, Layton Farms Manager  
Church of Jesus Christ of Latter-day Saints



**Clearfield Irrigation**

- System
- Service Area
- █ Phase 1

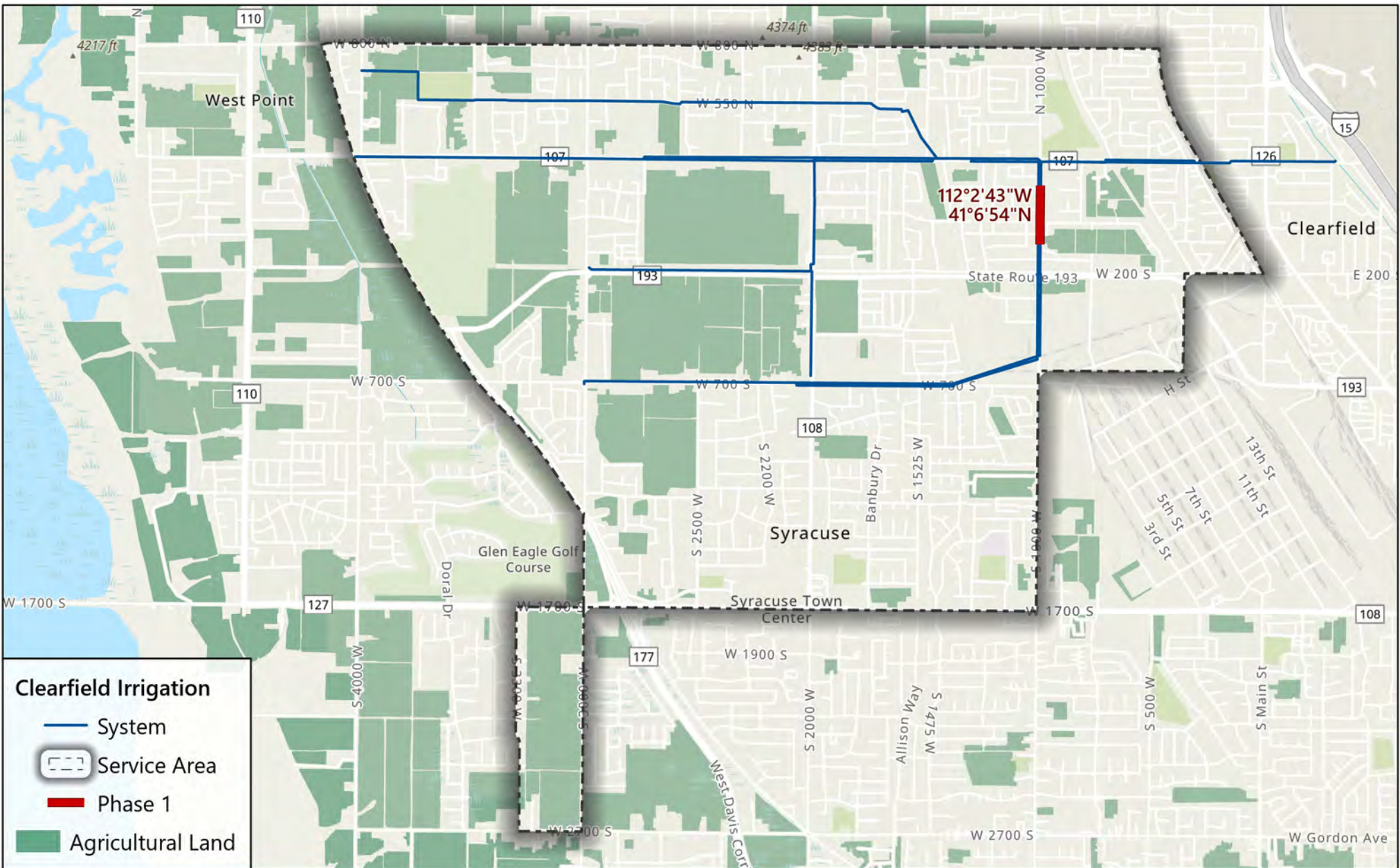
# PROJECT DETAIL

## ATTACHMENT B

*Clearfield Irrigation Company Canal Improvement Project – Phase I*



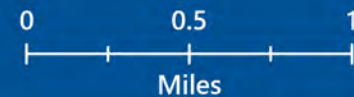
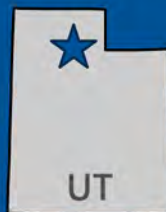
January 2025



# PROJECT LOCATION

## ATTACHMENT A

*Clearfield Irrigation Company Canal Improvement Project – Phase I*

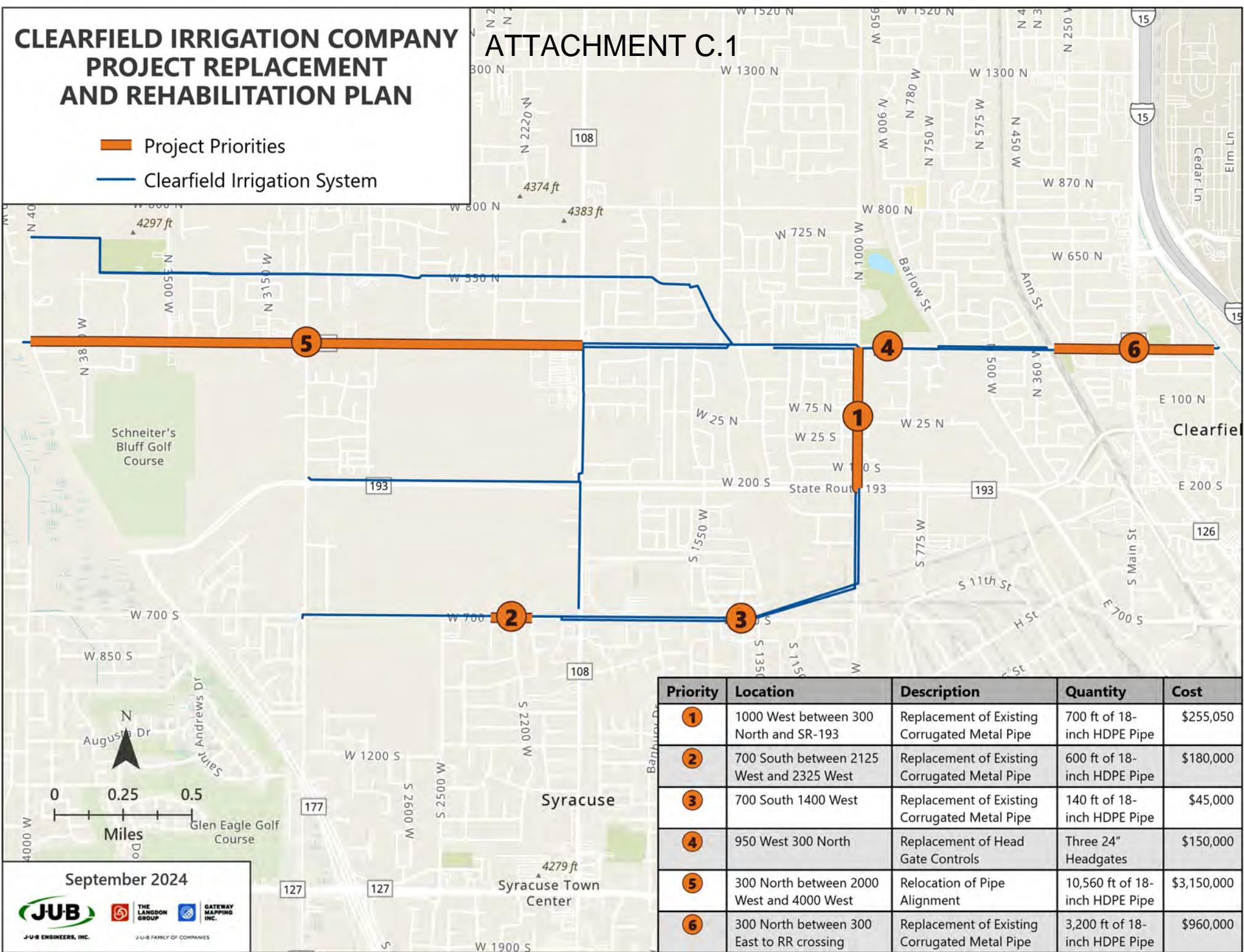


January 2025

# CLEARFIELD IRRIGATION COMPANY PROJECT REPLACEMENT AND REHABILITATION PLAN

## ATTACHMENT C.1

- █ Project Priorities
- █ Clearfield Irrigation System



Priority	Location	Description	Quantity	Cost
1	1000 West between 300 North and SR-193	Replacement of Existing Corrugated Metal Pipe	700 ft of 18-inch HDPE Pipe	\$255,050
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