WaterSMART

Water and Energy Efficiency Grants for FY 2023

Notice of Funding Opportunity No. R23AS00008

Funding Group I
Category A

Last Chance Canal Company SCADA Project Phase II

Grace, Idaho

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Technical Proposal and Evaluation Criteria

Executive Summary

The executive summary should include:

- *The date, applicant name, city, county, and state*
- *Please indicate whether you are a Category A applicant or a Category B applicant. If you are a Category B applicant, please briefly explain how you are acting in partnership with a Category A partner. Note: If you are a Category B applicant, you must include a letter from the Category A partner confirming that they are partnering with you and agree to the submittal and content of the proposal. See Section C.1. Eligible Applicants.*
- *A one paragraph project summary that provides the location of the project, a brief description of the work that will be carried out, any partners involved, expected benefits and how those benefits relate to the water management issues you plan to address. Please note: this information will be used to create a summary of your project for our website if the project is selected for funding.*
- *State the length of time and estimated completion date for the proposed project. Note: proposed projects should not have an estimated construction start date that is prior to May 2023.*
- *Whether or not the project is located on a Federal facility.*

Example: The Bard Water District, located in southern California near the Arizona border, along with the Quechan Indian Tribe, will construct conveyance improvements for the Five Gates structure, which is a series of gated culverts that act as a major chokepoint in the District's delivery system. The District will replace the existing Five Gates structure with new more advanced metal gates and 560 feet of pipeline to increase water use efficiency and reliability through optimal flow rates, reduced leakage, and reduced operational losses. The project is a top priority for the District and the Tribe and is expected to result in annual water savings of 1,452 acre-feet, which will remain in the Lower Colorado River System.

Date:	Application due date is Thursday, July 28, 2022, at 4:00 p.m. MDT
Applicant:	Last Chance Canal Company (Category A) Grace, Caribou County, Idaho
Project Title:	Last Chance Canal Company SCADA Project Phase II

Project Summary:

The Last Chance Canal Company (Last Chance) SCADA Project Phase II is a continual effort to improve water efficiency and conserve water in southeastern Idaho. Last Chance was able to complete most of Phase I of this project between 2019 and 2021, implementing major improvements. Because of unexpected cost increases, three sites of Phase I have yet to be completed.

The successes of Phase I lead smoothly into the optimization of Phase II. Based on what Last Chance has observed since implementing their SCADA system, they have gained knowledge on where and

how their water is being used and have learned where their system needs improvement. Phase II of this project proposes the completion of Phase I as well as adding sites and automation that will further their water conservation goals. A total of 11 sites are proposed for this second phase of the project. The work to be completed at each site includes installing telemetry, constructing flumes, installing automated gates, and installing a pipeline. All of this work will improve the management of 65,000 acre-feet of water and will conserve 2,270 acre-feet of water annually.

Approximate Length: 23 Months

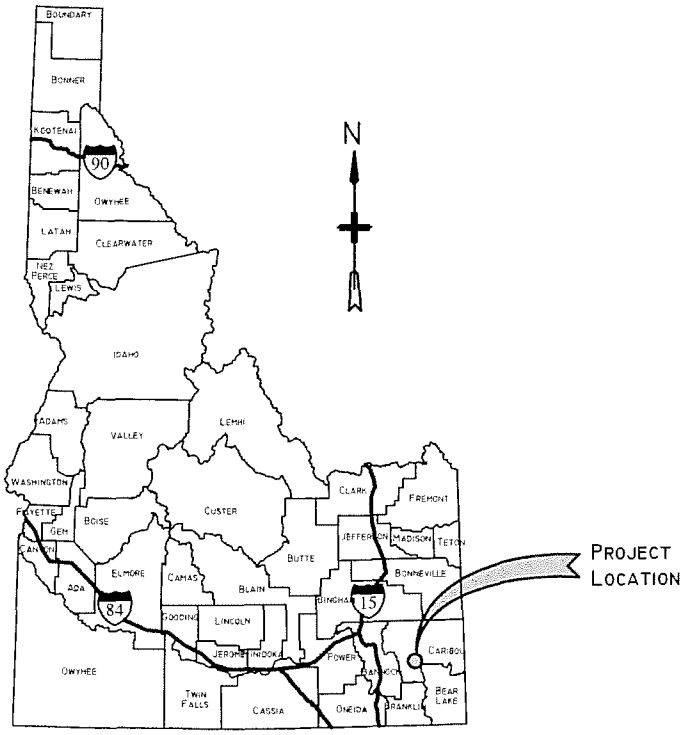
Completion Date: June 2025

Federal Facility: The project is not located on a federal facility.

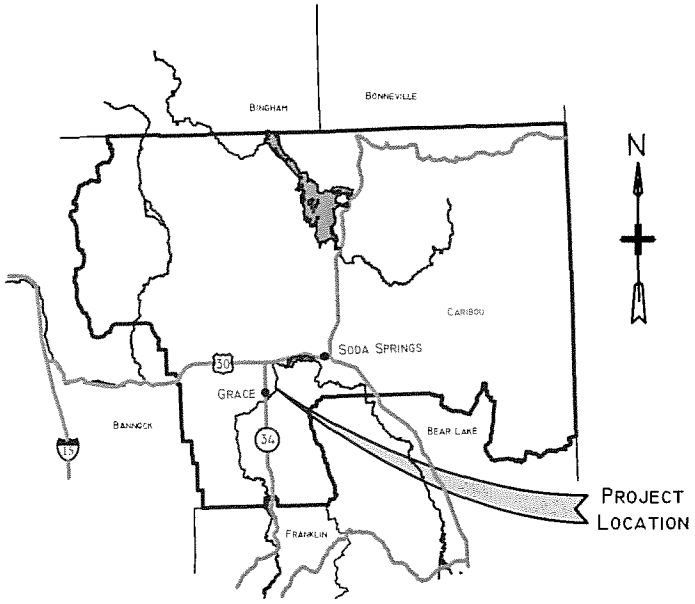
Project Location

Provide detailed information on the proposed project location or project area including a map showing the specific geographic location. For example, {project name} is located in {state and county} approximately {distance} miles {direction, e.g. northeast} of {nearest town}. The project latitude is {##°##'N} and longitude is {###°##'W}.

The project is located near Grace, Caribou County, Idaho, as shown in the location map in Figure 1. The project latitude is 42°34'36" N and the longitude is 111°43'49" W.



State of Idaho



Caribou County

FRANSON CIVIL ENGINEERS	DATE: JULY 18, 2022 SCALE: Loc Map.dwg O:\20021 Last Chance SCADA	LAST CHANCE CANAL COMPANY SCADA PROJECT PHASE II	FIGURE 1 LOCATION MAP

Technical Project Description

Provide a more comprehensive description of the technical aspects of your project, including the work to be accomplished and the approach to complete the work. This description should provide detailed information about the project including materials and equipment and the work to be conducted to complete the project. This section provides an opportunity for the applicant to provide a clear description of the technical nature of the project and to address any aspect of the project that reviewers may need additional information to understand.

Please do not include your project schedule and milestones here: that information is requested in response to the Readiness to Proceed criterion described in Section E.1.5.2. In addition, please avoid discussion of the benefits of the project, which are also requested in response to evaluation criteria described in Section E.1. This section is solely intended to provide an understanding of the technical aspects of the project.

Please note, if the work you are requesting funding for is a phase of a larger project, please only describe the work that is reflected in the budget and exclude description of other activities or components of the overall project.

Design and Permitting

If a grant from Reclamation is received, Last Chance will proceed with the design, permitting, and construction of Phase II of the SCADA project. A professional engineering firm will be contracted to perform the design, assist with permitting, and coordinate the environmental clearance process. There are 11 project locations as shown in Figure 2. The table below shows which type of work is proposed at each location. Some of these sites have already been cleared for work as a result of the first phase of this project. It is anticipated that the remaining sites will also qualify for a categorical exclusion per NEPA compliance. Construction will continue once funding is received for the sites that have already been cleared, bid, and ready for construction. Once the categorical exclusion checklist is complete and environmental clearance has been obtained, the engineering design and construction documents will be prepared for the remaining sites.

MAP LOCATION	LOCATION NAME	INSTALL TELEMETRY	CONSTRUCT FLUME	GATE AUTOMATION	DIVERSION AUTOMATION	PIPE
1	SCADA Bench B	x		x		
2	SCADA for East Branch/ Bench A	x				
2a	East Branch Head			x		
2b	Bench A			x		
3	Last Chance 2nd Flume Gate	x		x		

MAP LOCATION	LOCATION NAME	INSTALL TELEMETRY	CONSTRUCT FLUME	GATE AUTOMATION	DIVERSION AUTOMATION	PIPE
4a	North Extension Head			x		
4b	Tanner Head			x		
5	First West Lateral Head			x	x	
5a	First West Retrofit					x
6	First West Middle Site	x	x			
7	Peterson Hansen Head		x	x	x	
8	Brown Head	x	x	x		
9	Niter Head	x	x			
10	Tanner Middle Site	x	x			
11	West Branch End	x	x			

Construction

Once the design is complete and the construction documents have been prepared, the project will move forward with bid, award and construction. Construction activities will include the installation of telemetry, construction of flumes, installation of automated gates, construction of the Peterson/Hansen headgate, which is already designed, and the installation of 2,030 feet of 30-inch ADS N-12 pipe. Each of the SCADA site locations shown in Figure 1 will include a battery, solar panel, pole, data logger, radio, and necessary electrical wiring.

Following installation, all equipment will be tested and calibrated to ensure proper operation. All programming will be completed in order to ensure the SCADA software is working properly with its physical counterparts. This has taken place as each location has been installed and will happen continually throughout the project.

Figure 2: Last Chance SCADA Project Phase II

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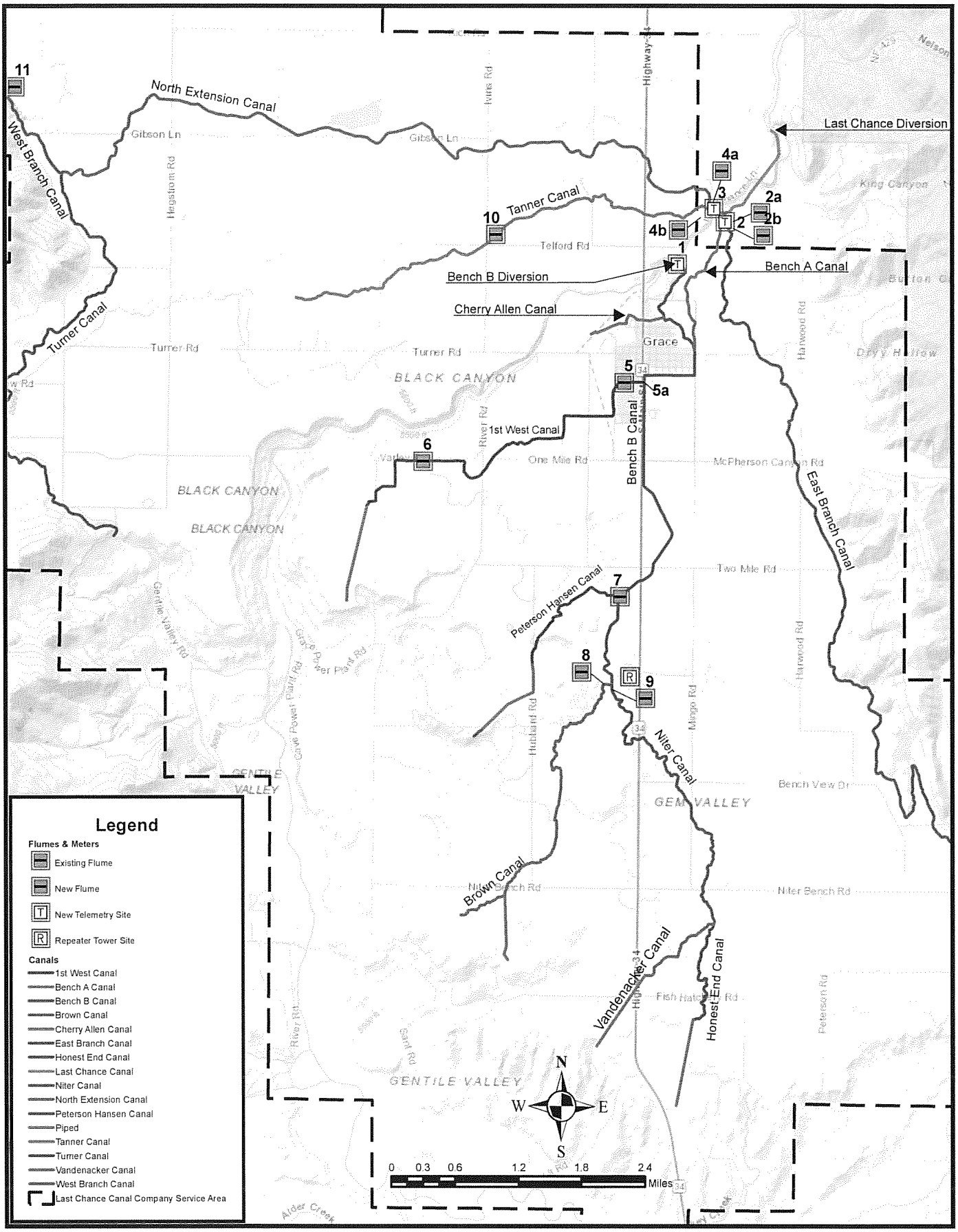

Evaluation Criteria

Note: Since the FOA is open to a variety of project types, Evaluation Criteria A-D may not apply to every project. For example, a water savings project (Criterion A) may not include implementation of a hydropower component (Criterion C). Please provide as much detail and support as you can for those criteria in A-D that are applicable to your project. All applicants should respond to Evaluation Criteria E-H.

Evaluation Criteria: Scoring Summary	*Points:*
A. Quantifiable Water Savings	*28*
B. Renewable Energy	*20*
C. Sustainability Benefits	*20*
D. Complementing On-Farm Irrigation Improvements	*10*
E. Planning and Implementation	*8*
F. Collaboration	*6*
G. Nexus to Reclamation Project Activities	*4*
H. Additional Non-Federal Funding	*4*
Total	*100*

E.1.1. Evaluation Criterion A – Quantifiable Water Savings (28 points)

Up to 28 points may be awarded for this criterion. This criterion prioritizes projects that will conserve water and improve water use efficiency supporting the goals of E.O. 14008. Points will be allocated based on the quantifiable water savings expected as a result of the project. Points will be allocated to give greater consideration to projects that are expected to result in more significant water savings. All applicants should be sure to address the following:

Water Savings

Describe the amount of estimated water savings. *For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project.*

As it is not possible for the Federal government to directly improve all infrastructure within the country, Last Chance appreciates Reclamation's funding assistance in supporting them in modernizing their infrastructure to better plan for the future, manage water supplies, and increase system efficiencies. This project is one step in working to modernize an extensive system that provides the necessary resources to sustain the local agricultural economy. The proposed SCADA system is a perfect example of modernizing existing systems by utilizing technological advancements to provide significant benefits to all involved.

The Last Chance system currently experiences overflow at the ends of the main canals in the system. With the SCADA system finished, automated gates installed, and the pipeline installed, Last Chance will be able to confirm where their water is going and better manage the water, which will essentially eliminate water losses from overflow at the ends of the main canals and allow water to be left in the Bear River system.

Currently it can take hours for the water master to adjust gates. The automated canal gates work with the SCADA system in order to provide timely and accurate management. With automated gates, Last Chance will be able to manage their water instantaneously and provide reliable flows to users. This decreases water loss as users will be able to take the water with confidence and renewed self-sufficiency, knowing that their pumping systems will not be cut short.

A flume installed at the beginning of the 1st West Canal, which was installed during Phase I of this project, has already given Last Chance valuable water management information. It was discovered that the capacity of this canal is choked at the diversion. The flow necessary for 1st West Canal is 70 cubic feet per second (cfs). Currently no more than 55 cfs can pass through the culvert. The proposed pipeline will carry the additional 15 cfs from a diversion 2,000 feet down stream from the current 1st West diversion and connect back into the 1st West Canal.

Water loss calculation can be found in Appendix C. Measurements were compared to target flow rates and it was calculated that 2,270 acre-feet of water can be saved per irrigation season.

Current Water Losses

Describe current losses: Please explain where the water that will be conserved is currently going and how it is being used. Consider the following:

A. Explain where current losses are going (e.g. back to the stream, spilled at the end of the ditch, seeping into the ground).

B. If known, please explain how current losses are being used. For example, are current losses returning to the system for use by others? Are current losses entering an impaired groundwater table becoming unsuitable for future use?

C. Are there any known benefits associated with where the current losses are going? For example, is seepage water providing additional habitat for fish or animal species?

The conserved 2,270 acre-feet of water is currently spilling at the end of eight of the main canals in the system. Once it spills, it either enters the Gentile Valley, collects in overflow ponds that seep into the ground, or eventually returns to the Bear River through seasonal streams.

Support/Documentation of Water Savings

Describe the support/documentation of estimated water savings: Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations. Note: projects that do not provide sufficient supporting detail/calculations may not receive credit under this section. Please be sure to consider the questions associated with your project type (listed below) when determining the estimated water savings, along with the necessary support needed for a full review of your proposal.

In addition, please note that the use of visual observations alone to calculate water savings, without additional documentation/data, are not sufficient to receive credit under this section. Further, the water savings must be the result of reducing or eliminating a current, ongoing loss, not the result of an expected future loss.

A majority of the Last Chance canals have SCADA measurement recording at or near the end of the canal, sometimes with several users diverting water downstream of the measurement device before

water spills at the end. Spilling loss estimates were calculated by taking the measured flow and subtracting the target flow that is used by the users downstream.

Project Types

Please address the following questions according to the type of infrastructure improvement you are proposing for funding. See Appendix A: Benefit Quantification and Performance Measure Guidance for additional guidance on quantifying water savings.
Note: You may delete the project types that are not applicable.

(1) ***Irrigation Flow Measurement:*** *Irrigation flow measurement improvements can provide water savings when improved measurement accuracy results in reduced spills and over-deliveries to irrigators. Applicants proposing municipal metering projects should address:*

a. *How have average annual water savings estimates been determined? Please provide all relevant calculations, assumptions, and supporting data.*

See Appendix C.

b. *Have current operational losses been determined? If water savings are based on a reduction of spills, please provide support for the amount of water currently being lost to spills.*

See Appendix C.

c. *Are flows currently measured at proposed sites and if so, what is the accuracy of existing devices? How has the existing measurement accuracy been established?*

The measured flows used for the water savings calculations have an accuracy of ± 5%.

d. *Provide detailed descriptions of all proposed flow measurement devices, including accuracy and the basis for the accuracy.*

See Table 1 below for estimated accuracy and the basis for this accuracy.

Table 1: Proposed Equipment Accuracy Tolerance

MEASUREMENT DEVICE	ACCURACY	BASIS FOR ACCURACY
Trapezoidal Ramp Flume	± 4.5%	Estimated using the Bureau of Reclamation Program WinFlume.
Parshall Flume	± 5%	Manufacturer reported accuracy.
Magnetic flow meter	± 2%	Manufacturer reported accuracy.
Water depth pressure gauge	± 2%	Manufacturer reported accuracy.
Ultrasonic depth gauge	± 1%	Manufacturer reported accuracy.

e. Will annual farm delivery volumes be reduced by more efficient and timely deliveries? If so, how has this reduction been estimated?

Annual farm delivery volumes will not change due to this project. However, because the operator will be more efficient in making those deliveries, excessive water will not be sent down the canals, resulting in spills at the end of the canals. Overall system efficiency will result in water conservation throughout the system.

f. How will actual water savings be verified upon completion of the project?

Current SCADA flow measurements are being recorded and can be compared post project SCADA flow measurements. This comparison will indicate how much water is being sent down each canal and how much of that water is above the target flow at the measurement sites at the ends of the canals on the system. It is anticipated that the operators will be able to hit target flows. The SCADA system has and will continue to allow Last Chance to enforce water use accountability among shareholders within their respective canals by ensuring water users do not use more water than they have been allocated. It will also give users the confidence to use the water when they have turns without fear of hurting their pumping systems.

Note that an agreement will not be awarded for an improvement to conserve irrigation water unless the applicant agrees to the terms of Section 9504(a)(3)(B) of Public Law 111-11 (see p. 52 of the NOFO for additional information).

E.1.2. Evaluation Criterion B – Renewable Energy (20 Points)

Up to 20 points may be awarded based on the extent to which the project increases the use of renewable energy or otherwise results in increased energy efficiency and reduced greenhouse gas emissions.

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

Note: an applicant may receive points under both Subcriteria No.B.1 and B.2 if the project consists of an energy efficiency component separate from the renewable energy component of the project. However, an applicant may receive no more than 20 points total under both Subcriteria No. B.1 and B.2.

E.1.2.1 Subcriterion B.1: Implementing Renewable Energy Projects Related to Water Management and Delivery

Up to 20 points may be awarded for projects that include constructing or installing renewable energy components (e.g., hydroelectric units, solar electric facilities, wind energy systems, or facilities that otherwise enable the use of renewable energy). Projects such as small scale solar resulting in minimal energy savings or production will be considered under Subcriterion No. B.2.

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

Although no hydropower generation is proposed as part of this project, the additional water conserved in the Bear River will have the opportunity to contribute to power generation at hydroelectric facilities like the Last Chance hydroelectric facility, the Grace hydroelectric facility, and other hydroelectric facilities downstream on the Bear River. The amount of energy capacity at the Last Chance Hydroelectric Project is 1.7 MW. The Grace Power Plant currently has a capacity of 33 MW. There is additional energy capacity from other hydropower facilities further downstream on the Bear River.

Describe the amount of energy generated. *For projects that implement renewable energy systems, state the estimated amount of energy that the system will generate (in kilowatt hours per year). Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate. Please explain how the power generated as a result of this project will be used, including any existing or planned agreements and infrastructure.*

No hydropower will be produced directly from the Last Chance Canal Company SCADA Project. Hydropower production is possible from hydropower facilities on the Bear River but is not a direct result of the project. It is estimated that the conserved 2,270 acre-feet of water could provide nearly 53,000 kWh at the Last Chance Hydroelectric Project. The Grace Power Plant could potentially produce 841 MWh with this additional water. This assumes 70% efficiency for the hydropower stations. There would be additional energy generated from other hydropower facilities further downstream on the Bear River, but this is a conservative estimate.

Describe the status of a mothballed hydropower plant. *For projects that are brining mothballed hydropower capacity back online, please describe the following:*

- *Clearly describe the work that will be accomplished through the WaterSMART Grant. Note: normal OM&R activities are not eligible for funding. The work being proposed must be an investment.*
- *Provide information about the capacity (in kilowatts) of the existing hydro system and the expected capacity once it is brough back on-line.*
- *Provide information about the duration that the hydro system has been offline and the reasons why it has been mothballed. Please include any regulatory reporting or filings (e.g., FERC filings) or other documentation regarding the system.*

Not applicable.

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

- *How the system will combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions*
- *Expected environmental benefits of the renewable energy system*
- *Any expected reduction in the use of energy currently supplied through a Reclamation project.*
- *Anticipated benefits to other sectors/entities.*
- *Expected water needs, if any, of the system.*

Additional energy benefits can be expected from the Last Chance Canal Company SCADA Project. The SCADA units will be self-sufficient, receiving their power from a solar cell and batteries, therefore not impacting local power grid demands. Additional energy will be conserved by reducing the amount of travel needed to maintain and record system measurements and conditions.

AND/OR

E.1.2.2 Subcriterion No. B.2 – Increasing Energy Efficiency in Water Management

Up to 10 points may be awarded for projects that address energy demands and reduce greenhouse gas emissions by retrofitting equipment to increase energy efficiency and/or through water conservation improvements that result in reduced pumping or diversions.

Describe any energy efficiencies that are expected to result from implementation of the water conservation or water efficiency project.

- *If quantifiable energy savings is expected to result from the project, please provide sufficient details and supporting calculations. If quantifying energy savings, please state the estimated amount in kilowatt hours per year.*
- *How will the energy efficiency improvement combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions.*
- *If the project will result in reduced pumping, please describe the current pumping requirements and the types of pumps (e.g., size) currently being used. How would the proposed project impact the current pumping requirements and energy usage?*
- *Please indicate whether your energy savings estimate originates from the point of diversion, or whether the estimate is based upon an alternate site of origin.*
- *Does the calculation include any energy required to treat the water, if applicable?*
- *Will the project result in reduced vehicle miles driven, in turn reducing greenhouse gas emissions? Please provide supporting details and calculations.*
- *Describe any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).*

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Advances in SCADA systems in recent years have had significant impacts on the management of water resources across the country, especially in the western United States. Last Chance will greatly benefit from finishing this project as it has become a best practice in the industry while providing

useful savings to the company. The completion of this SCADA system will reduce the travel time, fuel use, and labor hours required to manage the system; provide instantaneous flow measurements at critical locations throughout the system; allow for instantaneous gate adjustments; and provide reliable data to create a water budget for the system and improve management of the water. Not only does this benefit Last Chance, but it also meets the DOI's priority to utilize science to identify best practices to manage water resources and adapt to changes in the environment.

E.1.3. Evaluation Criterion C: Sustainability Benefits (20 points)

Up to 20 points may be awarded under this criterion. This criterion prioritizes projects that address a specific water and/or energy sustainability concern(s), including enhancing drought resilience, addressing the current and future impacts of climate change, and resolving water related conflicts in the region. In addition, this criterion is focused on the benefits associated with the project, including benefits to tribes, ecosystem benefits, and other benefits to water and/or energy supply sustainability.

***Enhancing drought resiliency**. In addition to the separate WaterSMART Environmental Water Resources Projects NOFO, this NOFO places a priority on projects that enhance drought resiliency, through this section and other sections above, consistent with the SECURE Water Act. Please provide information regarding how the project will enhance drought resilience by benefitting the water supply and ecosystem, including the following:*

- *Does the project seek to improve ecological resiliency to climate change?*
- *Will water remain in the system for longer periods of time? If so, provide details on current/future durations and any expected resulting benefits (e.g., maintaining water temperatures or water levels).*

The conserved water gained from minimizing spillage out the ends of the canals, as described above, will be kept in the Bear River. Additional water left in the Bear River system will help reduce truncated water deliveries from Bear Lake during drought years, which has happened at times in the last 20 years.

- *Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Please describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project or is subject to a recovery plan or conservation plan under the Endangered Species Act (ESA).*

IPaC lists two species as threatened near the project area: the Canada Lynx and the North American Wolverine. While neither animal is expected to be directly impacted by the project, other endangered or threatened species will benefit from all flows left in the Bear River. The Bear River passes through the Bear River Migratory Bird Refuge, downstream from the Last Chance service area and provides habitat to many species, mostly birds. Any additional water in the Bear River, or simply the stabilization of the river flows, will greatly benefit this refuge. Additionally, the Bear River ultimately enters the Great Salt Lake and provides a habitat to many local species that will benefit from a stabilized or additional water supply.

- *Please describe any other ecosystem benefits as a direct result of the project.*

- *Will the project directly result in more efficient management of the water supply? For example, will the project provide greater flexibility to water managers, resulting in a more efficient use of water supplies?*

The Last Chance Canal Company SCADA Project Phase II will provide greater flexibility to water managers. Managers have already seen the benefits from the SCADA sites that have been completed. With the completion of Phase II management will be able to deliver adequate flows with the proposed pipeline to the users on the 1st West Canal, see more savings with the completion of the SCADA sites, and see the benefits of the automated gate system.

The automated gates ensure the correct flow is being sent down each water way. As the water levels fluctuate, the automated gates adjust to maintain the flows being diverted. This gives the shareholders the confidence to take the water on time and not worry about their systems shutting down from insufficient water.

Projects that are intended to improve streamflows or aquatic habit, and that are requesting $500,000 or more in Federal funding, must include information about plans to monitor the benefits of the project. Please describe the plan to monitor improved streamflows or aquatic habit benefits over a five-year period once the project has been completed. Provide detail on the steps to be taken to carry out the plan.

Addressing a specific water and/or energy sustainability concern(s). *Will the project address a specific sustainability concern? Please address the following:*

- *Explain and provide detail of the specific issue(s) in the area that is impacting water sustainability, such as shortages due to drought and/or climate change, increased demand, or reduced deliveries.*

Water savings are expected to reduce Bear River diversions at the Last Chance and Grace Diversion Dams. These water savings could potentially reach The Great Salt Lake, which is seeing record low levels, which has been attributed to climate change.

- *Explain and provide detail of the specific issue(s) in the area that is impacting energy sustainability, such as reliance on fossil fuels, pollution, or interruptions in service.*

By automating the gates for this system, managers can adjust gates and desired flow rates remotely without having to drive to each diversion which will save fuel and time for the management. With gas prices high this will create a more sustainable system for the Last Chance Canal Company.

- *Please describe how the project will directly address the concern(s) stated above. For example, if experiencing shortages due to drought or climate change, how will the project directly address and confront the shortages?*

As water savings stay in the Bear River they can potentially add to the storage in the The Great Salt Lake.

- *Please address where any conserved water as a result of the project will go and how it will be used, including whether the conserved water will be used to offset groundwater pumping.*

used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.

The Last Chance Canal Company SCADA Project is expected to reduce Bear River diversions at the Last Chance and Grace Diversion Dams. The conserved water will remain in the Bear River and will provide benefits to all users downstream of Last Chance.

- *Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.*

The Bear River downstream of the Grace Dam will be used to carry this water to downstream water users such as the Bear River Migratory Bird Refuge and the Great Salt Lake. No increase to acreage or consumptive use by Last Chance will result from the proposed project.

- *Indicate the quantity of conserved water that will be used for the intended purpose(s).*

It is expected that the full 2,270 acre-feet will be used for this intended purpose.

Other project benefits. *Please provide a detailed explanation of the project benefits and their significance. These benefits may include, but are not limited to, the following:*

- ***(1) Combating the Climate Crisis:*** *E.O. 14008: Tackling the Climate Crisis at Home and Abroad, focuses on increasing resilience to climate change and supporting climate resilient development. For additional information on the impacts of climate change throughout the western United States, see:*
    - *https://www.usbr.gov/climate/secure/docs/2021secure/2021SECUREReport.pdf.*
- *Please describe how the project will address climate change, including:*
    - *Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.*

As water becomes less reliable it becomes important for water users to be efficient with the water they manage in order to be able to use it until the end of the season and to ensure those with younger water rights also have access to water. The Last Chance Canal Company SCADA Project Phase II is expected to more efficiently use their 65,000 acre-feet of water.

- *Does this proposed project strengthen water supply sustainability to increase resilience to climate change?*

One of the many positive outcomes of this project is a clearer understanding of specific water usage. Armored with that knowledge, the Last Chance Canal Company can make more informed decisions and better plans for the future concerning water usage. This increases both sustainability and resilience to climate change.

- *Will the proposed project establish and utilize a renewable energy source?*

As Last Chance diverts less water from the Bear River it can be used for hydropower. See section E.1.2.1 Subcriterion B.1

- *Will the project result in lower greenhouse gas emissions?*

Yes, the managers will no longer need to manually adjust gate. Currently, managers have to drive to the gate locations to adjust them. There are more than 40 miles of canals in the Last Chance Canal Company.

- ***(2) Disadvantaged or Underserved Communities.*** *E.O. 14008 and E.O. 13985 support environmental and economic justice by investing in underserved and disadvantaged communities and addressing the climate-related impacts to these communities, including impacts to public health, safety, and economic opportunities.*
- *Please describe how the project supports these Executive Orders, including:*
  - *Does the proposed project directly serve and/or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety through water quality improvements, new water supplies, new renewable energy sources, or economic growth opportunities.*

Much of Last Chance's service area includes rural communities within Gem Valley and Gentile Valley. These areas are largely dependent on agricultural production and will benefit from better water management and a more reliable water supply to water their crops.

- *If the proposed project is providing benefits to a disadvantaged community, provide sufficient information to demonstrate that the community meets the disadvantaged community definition in Section 1015 of the Cooperative Watershed Act, which is defined as a community with an annual median household income that is less than 100 percent of the statewide annual median household income for the State, or the applicable state criteria for determining disadvantaged status.*

Not applicable.

- *If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.*

According to the Idaho Department of Health & Welfare, "Because Idaho is a large and mostly rural western state, geography and distance impact the health and safety of Idahoans. The residents of Idaho's rural communities tend to be older, experience higher rates of poverty and lower per capita income, and have higher uninsured rates, as compared to their urban counterparts."

The counties in which Last Chance provides water are all classified as "Rural" by this state department. Therefore, this project is providing multiple benefits—as discussed throughout this application—to an underserved community.

- ***(3) Tribal Benefits.*** *The Department of the Interior is committed to strengthening tribal sovereignty and the fulfillment of Federal Tribal trust responsibilities. The President's memorandum "Tribal Consultation and Strengthening Nation-to-Nation Relationships"*

asserts the importance of honoring the Federal government's commitments to Tribal Nations.

- *Please address the following, if applicable:*
    - *Does the proposed project directly serve and/or benefit a Tribe? Will the project increase water supply sustainability for an Indian Tribe? Will the project provide renewable energy for an Indian Tribe?*
    - *Does the proposed project directly support tribal resilience to climate change and drought impacts or provide other tribal benefits such as improved public health and safety through water quality improvements, new water supplies, or economic growth opportunities?*

This project will not benefit Indian tribes.

- ***(4) Other Benefits.** Will the project address water and/or energy sustainability in other ways not described above?*
- *For example:*
    - *Will the project assist States and water users in complying with interstate compacts?*
    - *Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal, and industrial, environmental, recreation, or others?*

The conserved water is expected to benefit multiple sectors. Agriculture is expected to benefit from the additional water in the Bear River. The Bear River carries water across many county lines as well as enters into the State of Utah. There will also be environmental benefits to the Bear River Migratory Bird Refuge, aquatic habitats downstream of Grace, and other habitats on the Great Salt Lake.

- *Will the project benefit a larger initiative to address sustainability?*

Yes, see Subcriterion E.1 – Project Planning

- *Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?*

The main type of tension in the basin is between shareholders within the canal companies. The SCADA project aims to provide a definitive accounting of the water diverted to the individual canals, thereby striving to relieve tensions of shareholders claiming over-delivery of water to others.

E.1.4. Evaluation Criterion D: Complementing On-Farm Irrigation Improvements (10 points)

*Up to 10 points may be awarded for projects that describe in detail how they will **complement on-farm irrigation improvements** eligible for NRCS financial or technical assistance.*

Note: Scoring under this criterion is based on an overall assessment of the extent to which the WaterSMART Grant project will complement ongoing or future on-farm improvements. Applicants should describe any proposal made to NRCS, or any plans to seek assistance from NRCS in the future, and how an NRCS-assisted activity would complement the WaterSMART Grant project. Financial assistance through the Environmental Quality Incentives Program (EQIP) is the most

commonly used program by which NRCS helps producers implement improvements to irrigation systems, but NRCS does have additional technical or financial assistance programs that may be available. Applicants may receive maximum points under this criterion by providing the information described in the bullet points below. ***Applicants are not required to have assurances of NRCS assistance by the application deadline to be awarded the maximum number of points under this sub-criterion.*** *Reclamation may contact applicants during the review process to gather additional information about pending applications for NRCS assistance if necessary.*

Please note: On-farm improvements themselves are not eligible activities for funding under – NRCS will have a separate application process for the on-farm components of selected projects that may be undertaken in the future, separate of the WaterSMART Grant project.

If the proposed project will complement an on-farm improvement eligible for NRCS assistance, please address the following:

- *Describe any planned or ongoing projects by farmers/ranchers that receive water from the applicant to improve on-farm efficiencies.*
  - *Provide a detailed description of the on-farm efficiency improvements.*
  - *Have the farmers requested technical or financial assistance from NRCS for the on-farm efficiency projects, or do they plan to in the future?*
  - *If available, provide documentation that the on-farm projects are eligible for NRCS assistance, that such assistance has or will be requested, and the number or percentage of farms that plan to participate in available NRCS programs.*
  - *Applicants should provide letters of intent from farmers/ranchers in the affected project areas.*

Most irrigators in the Last Chance service area already have sprinkler irrigation systems in place. However, there are some shareholders who are interested in making on-farm improvements with the financial assistance of the NRCS. In general, when users are held accountable to only use their allocated water share, improvements will likely be required so that they can continue to properly irrigate their crops. Last Chance will assist all interested shareholders in seeking NRCS assistance.

- *Describe how the proposed WaterSMART project would complement any ongoing or planned on-farm improvement.*
  - *Will the proposed WaterSMART project directly facilitate the on-farm improvement? If so, how? For example, installation of a pressurized pipe through WaterSMART can help support efficient on-farm irrigation practices, such as drip-irrigation.*

    OR
  - *Will the proposed WaterSMART project complement the on-farm project by maximizing efficiency in the area? If so, how?*

The proposed project will complement on-farm improvements in the area by increasing water management efficiency. Better control of water deliveries will stabilize the water supply, ensuring timely deliveries to individual users so they can rely on water for their crops at specific times. With this confidence in the volume and timing of their received water, users can make improvements specific to their situation and maximize their on-farm efficiencies.

- *Describe the on-farm water conservation or water use efficiency benefits that are expected to result from any on-farm work.*
    - *Estimate the potential on-farm water savings that could result in acre-feet per year. Include support or backup documentation for any calculations or assumptions.*

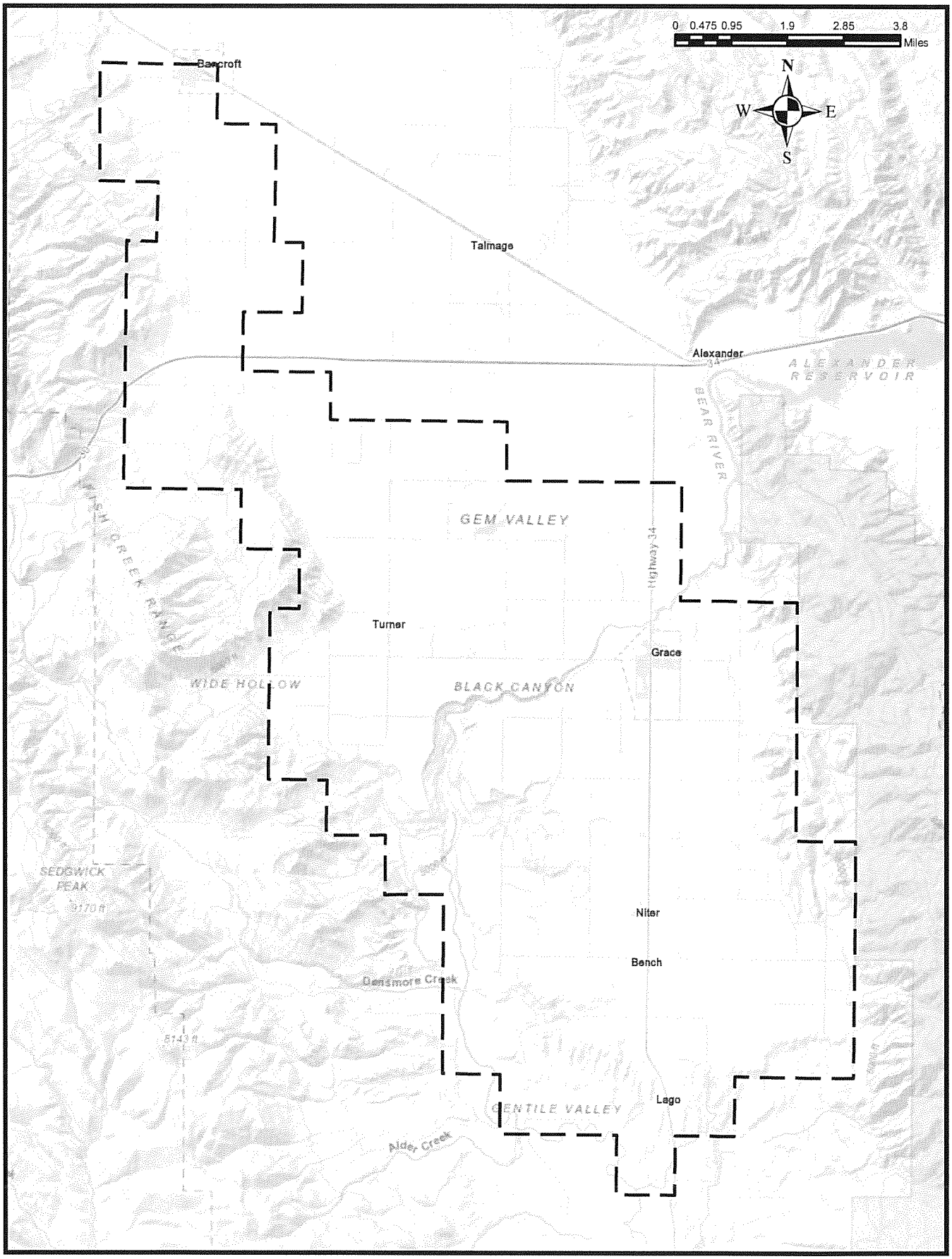
Any on-farm improvements made by individual users will increase efficiency and lead to water conservation experienced by Last Chance as a whole. While many users already utilize sprinkler irrigation, some of the pumps used to feed their systems are outdated and inefficient. Depending on the age and model of the pump, energy savings could vary greatly with the replacement of the pumps but would nevertheless result in savings in each case. In addition, those who don't already have sprinkler irrigation systems in place could expect anywhere from 10 to 50 percent increases in efficiency by converting to sprinkler irrigation systems. Irrigation systems could be further upgraded from hand lines or wheel lines to center pivots to further improve on-farm and water use efficiency. Exact water savings from on-farm improvements have not been quantified in detail as it is out of the scope of this project.

- *Please provide a map of your water service area boundaries. If your project is selected for funding under this NOFO, this information will help NRCS identify the irrigated lands that may be approved for NRCS funding and technical assistance to complement funded WaterSMART projects.*

See water service area boundaries map on the following page.

Figure 3: Last Chance Canal Company Service Area

FRANSON CIVIL ENGINEERS



Note: On-farm water conservation improvements that complement the water delivery improvement projects selected through this NOFO may be considered for NRCS funding and technical assistance to the extent that such assistance is available. For more information, including application deadlines and a description of available funding, please contact your local NRCS office. See the NRCS website for office contact information, www.nrcs.usda.gov/wps/portal/nrcs/main/national/contact/states/. Notice of Funding Opportunity No. R23AS00008

E.1.5. Evaluation Criterion E: Planning and Implementation (8 points)

Up to 8 points may be awarded for these subcriteria.

E.1.5.1 Subcriterion E.1 – Project Planning

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

Does the applicant have a Water Conservation Plan and/or System Optimization Review (SOR) in place? *Does the project address an adaptation strategy identified in a completed WaterSMART Basin Study? Please self-certify or provide copies of these plans where appropriate to verify that such a plan is in place. Including a specific excerpt or a link to the planning document may also be considered where appropriate.*

Provide the following information regarding project planning:

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

Last Chance received a WaterSMART planning grant in 2017 to complete a water master plan titled that covered their entire system which was completed in 2018. This plan evaluated the condition of the current system, identified issues and needs within the system, and recommended improvement projects to address the identified issues. It was the main basis and support for the completion of this SCADA project.

In addition, the State of Idaho completed a comprehensive water plan in 2012 that also addressed key strategies for all water users to be aware of and implement as appropriate for the welfare of the State moving into the future. The first objective of the Idaho State Water Plan is "1) Water Management: Encourage the quantification of water supplies, water uses, and water demands for all water rights within the state. Encourage integrated, coordinated, and adaptable water resource management and the prudent stewardship of water resources"

The State of Utah, in 2004, prepared a Water Plan for the Bear River Basin, which spans the states of Utah, Idaho, and Wyoming. The Plan encourages and emphasizes the importance of water management and metering. "Measurement or metering of flows is important in both the agricultural setting and the urban setting. Accurate measurement of water use encourages conservation in several ways. Not only is each user assured a fair and equitable water distribution and a corresponding

financial assessment, it is also a more business-like way to operate a system and maintain records. When users pay according to the quantity of water they actually use, there is a built-in incentive to conserve, whether the use is irrigation, municipal, or industrial. Accurate metering can also help to identify and quantify system losses."

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

The Last Chance Water Master Plan directly identifies the implementation of a SCADA system as a critical improvement project in increasing the efficiency of the system. The plan identified several system weaknesses resulting from not having the capabilities a SCADA system provides including:

- Significant travel time required to address emergencies due to large service area
- High fuel use and travel time required to record flow measurements and operate system features (e.g., gates, valves, etc.) due to large service area
- Wasted water during emergencies because so much time is needed to reach the emergency location and operate

By implementing the proposed project, emergencies will be resolved or mitigated. With the proposed automated gates installed the operator can close gates, divert water, and make other necessary changes upon notification of an emergency which will reduce the damage caused by the emergency and thus significantly decrease the water wasted. The project will also reduce the fuel energy use and time required to record flow measurements and manually operate gates. Typical operations are to operate a gate or valve, allow the system to stabilize, check the end of canal spill waste, adjust the diversion amount to minimize waste, and repeat. This process will be improved as the travel time and investigations of the end of canal waste can all be done remotely with the SCADA transmitters.

In a more general perspective, this project also meets the goals and objectives of the Idaho State Water Plan which aims to promote water conservation and water use efficiency. The installation of a SCADA system will allow Last Chance to better manage and increase the water use efficiency of 65,000 acre-feet per year and conserve approximately 2,270 acre-feet of water per year.

(3) If applicable, provide a detailed description of how a project is addressing an adaptation strategy specifically identified in a completed WaterSMART Basin Study or Water Management Options Pilot (e.g., a strategy to mitigate the impacts of water shortages resulting from climate change, drought, increased demands, or other causes).

Not applicable.

For more information on Basin Studies, including a list of completed basin studies and reports, please visit: www.usbr.gov/WaterSMART/bsp.

E.1.5.2. Subcriterion E.2 – Readiness to Proceed

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

Please note, if your project is selected, responses provided in this section will be used to develop the scope of work that will be included in the financial assistance agreement.

Applications that include a detailed project implementation plan (e.g., estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the most points under this criterion.

- *Identify and provide a summary description of the major tasks necessary to complete the project. Note: please do not repeat the more detailed technical project description provided in Section D.2.2.2 Application Content. This section should focus on a summary of the major tasks to be accomplished as part of the project.*

Major tasks are listed in the table below.

- *Describe any permits that will be required, along with the process for obtaining such permits.*

Should this project receive WaterSMART funding, NEPA compliance will be required. Since Phase I of this project qualified for a categorical exclusion, it is expected to meet NEPA environmental requirements for another categorical exclusion. Seven of the eleven sites have already been cleared and construction could continue.

Engineering and design of the SCADA project will be completed by a licensed engineer with the construction and SCADA setup being performed by licensed contractors.

- *Identify and describe any engineering or design work performed specifically in support of the proposed project.*

According to the Last Chance Canal Company Master Plan, engineering services were used to prepare feasibility options for a SCADA system and prepare preliminary cost estimates.

- *Describe any new policies or administrative actions required to implement the project.*

Administrative actions by Last Chance will entail extensive input during design and construction. The board members of Last Chance have extensive knowledge of the area, facilities, and operations of the system as well as an understanding of the Last Chance water users. Additional actions will also include updating system operational procedures, set assessment values, and provide training to employees on new equipment.

- *Please also include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: complete environmental and cultural compliance; mobilization; begin construction/installation; construction/installation (50% complete); and construction/installation (100% complete). Was the expected timeline for environmental and cultural compliance discussed with the local Reclamation Regional or Area Office?*

A tentative plan is shown below.

TASK	TIMELINE
Finalize WaterSMART Grant Contract	May 2023
NEPA, Permitting	June - September 2023
Finalize Engineering Design, Construction Bid	June - September 2023
Construction	October 2023 - April 2025
SCADA Programming and Implementation	October 2023 - April 2025
Final Reporting	June 2025

E.1.6. Evaluation Criterion F – Collaboration (6 points)

Up to 6 points may be awarded for projects that promote and encourage collaboration among parties in a way that helps increase the sustainability of the water supply.

Please describe how the project promotes and encourages collaboration. Consider the following:

- *Is there widespread support for the project? Please provide specific details regarding any support and or partners involved in the project. What is the extent of their involvement in the process?*

The project is widely supported by the Last Chance shareholders, the Bear River Water Users Association (BRWUA), Bear River District 11 Water Master, Caribou County Commissioners, and the city of Grace. By supporting this project as well, Reclamation will build trust with all entities involved and those observing from outside the project. This will expand the lines of communication between local entities and rural communities, water authorities, and the Federal government via Reclamation. This can then be used to encourage better management of the country's resources, as well as to build trust in the laws that are enacted to provide for the future. Improved communication is always beneficial to all involved.

- *What is the significance of the collaboration/support?*

This project is expected to promote communication between Last Chance and the individual lateral canal company boards. This project will help to highlight system deficiencies and allow Last Chance to improve their water management methods.

Support from BRWUA and the Bear River District 11 Water Master means they recognize the benefits that projects like this have on the communities and river system as a whole. The SCADA information provided for the project will allow better water use documentation and encourage collaboration between Last Chance and BRWUA.

The BRWUA will play a crucial part in the SCADA project by providing their SCADA data on the diversion flows of the Last Chance and Grace Diversions. These diversions are already monitored by the BRWUA and, in an effort to improve collaboration, the BRWUA and Last Chance will work together to share information on these structures.

Support from the shareholders and the city of Grace signifies the support of the local community. The community is dependent on the agricultural production that the better managed water will provide.

- *Will this project increase the possibility/likelihood of future water conservation improvements by other water users?*

Yes. The gate automation portion of this project is a result of the information gained from Phase I of this project. It is important to complete the SCADA portion of this project. With the information provided by the SCADA system, water users will more fully understand the amount of water they are using, how much is being lost to seepage, and prevent water spilling at the ends of their canals. This will drive the Last Chance and individual canal board members to prioritize projects that will give the greatest benefits.

The completion of this project will allow Last Chance to evaluate the proper operation and accuracy of installed measurement devices throughout the entire system and make any required adjustments. After the completion of this project, Last Chance will monitor and analyze the data collected. The data will be used to improve water management, conserve water, locate sections of the canal systems that need improvement, and create a prioritized system improvement projects list. In addition, the data will be used to establish a baseline of the system's performance so that when improvements are made, the results can be easily quantified.

- *Please attach any relevant supporting documents (e.g., letters of support or memorandum of understanding).*

See Appendix A.

E.1.7. Evaluation Criterion G: Additional Non-Federal Funding (4 points)

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

$$\frac{\textit{Non-Federal Funding}}{\textit{Total Project Cost}} = \frac{\$337,000}{\$648,000} = \mathbf{52\%}$$

E.1.8. Evaluation Criterion H: Nexus to Reclamation (4 points)

Up to 4 points may be awarded if the proposed project is connected to a Reclamation project or Reclamation activity. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.

Describe the nexus between the proposed project and a Reclamation project or Reclamation activity. Please consider:

- *Does the applicant have a water service, repayment, or 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?*

- *Will the proposed work benefit a Reclamation project area or activity?*

While Last Chance does not directly receive Reclamation water, their water supply is the Bear River which impacts several Reclamation-funded projects downstream. Flows not used within the Last Chance system will remain in the Bear River, contributing water to the Bear River Basin, and will positively impact projects such as the Benson Canal Enclosure, Upper High Creek Canal Enclosure & Hydropower, and Cub River West Lewiston and Middle Ditch Projects. In addition, Reclamation provided funding to Last Chance in 2017 to develop a system-wide water master plan which is now complete and lists the proposed project as a priority for the company. This plan has proven extremely beneficial to Last Chance as it moves forward with various improvements to their system.

- *Is the applicant a Tribe?*

Not Applicable.

Performance Measures

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved). For more information calculating performance measure, see Appendix A: Benefit Quantification and Performance Measure Guidance.

All Water and Energy Efficiency Grants applicants are required to propose a "performance measure" (a method of quantifying the actual benefits of their project once it is completed). A provision will be included in all assistance agreements with Water and Energy Efficiency Grants recipients describing the performance measure and requiring the recipient to quantify the actual project benefits in their final report to Reclamation upon completion of the project. If information regarding project benefits is not available immediately upon completion of the project, the financial assistance agreement may be modified to remain open until such information is available and until a Final Report is submitted. Quantifying project benefits is an important means to determine the relative effectiveness of various water management efforts, as well as the overall effectiveness of Water and Energy Efficiency Grants.

Note: program funding may be used to install necessary equipment to monitor progress. However, program funding may not be used to measure performance after project construction is complete (these costs are considered normal operation and maintenance costs and are the responsibility of the applicant).

With the installation and the utilization of existing flow measurement devices, Last Chance will confirm how much water is diverted from the Bear River and how it is used within their system. They will then be able to monitor overall canal conveyance flows and compare them with the available historic records. Most of the flow measurement devices on the main canals have been in place for several years, but regular flow readings have not been recorded. In addition, some devices were not functioning properly due to improper installation or age of the equipment and will be adjusted so that all system readings are accurate as a result of this project.

Project Budget

If Incurrence of pre-award costs is not authorized without prior written approval of the awarding Grants Officer. Per 2 CFR 200.458, pre-award costs are those incurred prior to the effective date of the Federal award or subaward directly pursuant to the negotiation and in anticipation of the Federal award where such costs are necessary for efficient and timely performance of the scope of work. If the proposed project is selected, the awarding Reclamation Grants Officer will review the proposed pre-award costs to determine if these costs are consistent with program objectives and are allowable in accordance with the authorizing legislation. Proposed pre-award costs must also be compliant with all applicable administrative and cost principles criteria established in 2 Code of Federal Regulations (CFR) Part 200 and all other requirements of this NOFO. ***In no case will costs incurred prior to April 1, 2022, be considered for inclusion in the final approved project budget.***

Please note that the costs for preparing and submitting an application in response to this NOFO, including the development of data necessary to support the proposal, are not eligible project costs under this NOFO and must not be included in the project budget. In addition, Budget Proposals must not include costs for the purchase of water or land, or to secure an easement other than a construction easement. These costs are not eligible project costs under this NOFO.

Budget Proposal and Funding Plan

The total project cost is the sum of all allowable items of costs, including all required cost sharing and voluntary committed cost sharing, including third-party contributions, that are necessary to complete the project. Please include the following chart (Table 1) to summarize all funding sources. Denote in-kind contributions with an asterisk (*).

Table 2: Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
1. Idaho Division of Water Resources	$336,960
Non-Federal Subtotal	**$336,960**
Other Federal Entities	
1.	$0
Other Federal Subtotal	**$0**
REQUESTED RECLAMATION FUNDING	**$311,040**

The budget proposal should include detailed information on the categories listed below and must clearly identify all items of cost, ***including those that will be contributed as non-Federal cost share by the applicant (required and voluntary), third-party in-kind contributions, and those that will be***

covered using the funding requested from Reclamation, and any requested pre-award costs (Table 2).

Table 3: Total Project Cost Table

SOURCE	AMOUNT
Costs are reimbursed with the requested Federal Funding	$311,040
Costs to be paid by the applicant	$336,960
Value of third-party contributions	$0
TOTAL PROJECT COST	**$648,000**

Budget Narrative

Submission of a budget narrative is mandatory. An award will not be made to any applicant who fails to fully disclose this information. The budget narrative provides a discussion of, or explanation for, items included in Section B of the SF-424A. The types of information to describe in the narrative include, but are not limited to, those identified in the Budget Narrative Guidance attached to this NOFO. Applicants may elect to use the Budget Detail and Narrative spreadsheet for their budget narrative (see attached). Costs, including the valuation of third-party in-kind contributions, must comply with the applicable cost principles contained in 2 CFR Part 200.

The total project cost is $648,000. Last Chance will apply for a loan from the Idaho Division of Water Resources to cover their cost share of $337,000. The loan will be repaid with increased assessments to the shareholders. Any work performed by Last Chance employees or board members will be funded by the company's general fund and serve as in-kind contributions. No other applications for funding have been requested from any other Federal funding agency. Funding from the Idaho Division of Water Resources and Reclamation are pending. If these funds are not received, it is likely that Last Chance Canal Company will use increased assessments to self-fund the local cost share portion as they did with Phase I.

Personnel

Not applicable.

Fringe Benefits

Not applicable. All applicable work will be performed on a contractual basis.

Travel

Not applicable.

Equipment

Last Chance board members and employees will not earn salary, wages, fringe benefits, or reimbursements from funding obtained to implement this project. All contributions by the irrigation company board members and employees will be volunteered or funded by the company's general fund and serve as Last Chance's contributions to the project.

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

All equipment for the project will be included in the contracted work.

Supplies

All materials and supplies for the project will be included in the contracted work.

Contractual

All funding obtained for the project will be used to pay consultants, construction contractors, and subcontractors. These include legal and administrative services, environmental services, engineering design, construction management, and construction services. Detailed tasks to be completed, rates, and materials for each task are outlined in the appendices as follows:

Appendix C – Probable Cost for Engineering Design & Construction Management

Appendix D – Probable Cost for Construction Services

Appendix E – Probable Cost for Environmental Services

The costs shown in the appendices were prepared by a professional engineering firm. Costs for construction services were estimated using bid abstracts from similar projects. A narrative for the unit costs used for the construction services estimate is included in the appendix. The estimates for engineering design, construction management, and environmental services have been broken down into various tasks and employee types to provide a more detailed estimate.

Construction

All construction for the project will be included in the contracted work.

Other

Not applicable.

Indirect Charges

No indirect expenses are anticipated to complete this project.

Pre-Award Costs

If the proposed project is selected, the awarding Reclamation Grants Officer will review the proposed pre-award costs to determine if they are consistent with program objectives and are allowable in accordance with the authorizing legislation. Proposed pre-award costs must also be compliant with all applicable administrative and cost principles criteria established in 2 CFR Part §200 and all other requirements of this NOFO. In no case will costs incurred prior to April 1, 2022, be considered for inclusion in the proposed project budget.

Please note that the costs for preparing and submitting an application in response to this NOFO, including the development of data necessary to support the proposal, are not eligible project costs under this NOFO and must not be included in the project budget.

In addition, please ensure that the budget proposal includes any project costs that may be incurred prior to award. For each cost, describe:

- *The project expenditure and amount*

None.

- *The date of cost incurrence*

None.

- *How the expenditure benefits the project*

None.

Environmental and Cultural Resource Considerations

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants should consider the following list of questions focusing on the NEPA, ESA, and NHPA requirements. Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to:

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of

such work on the surrounding environment and any steps that could be taken to minimize the impacts.

The project proposes to install telemetry sites at strategic locations on the system and re-set existing flumes. The environmental impact is anticipated to be temporary and minimal. All work will be completed in previously disturbed areas. Contract documents will outline the responsibility of the contractor relative to dust control and air and water pollution during construction activities. No significant impacts are expected.

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

IPaC lists one threatened species, the Canada Lynx, and one proposed as threatened, the North American Wolverine, as potentially located in the project area. However, there are no critical habitats identified within the project area. There are no anticipated impacts to these species due to the proposed project.

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

According to the National Wetlands Inventory, there are some palustrine wetlands located in the project area south of Grace, Idaho. It is not anticipated that the installation of a SCADA system will impact these wetlands, but if during NEPA compliance impacts are identified, measures will be taken to avoid or mitigate these impacts. The project will not affect any "Waters of the United States" that are under CWA jurisdiction.

When was the water delivery system constructed?

The Last Chance diversion and delivery system was originally constructed in the late 1890s. The old Last Chance Diversion Dam (timber-crib dam) was completed during the winter of 1897 to 1898 and replaced with a roller-compacted concrete dam in 2016. The Bench B Diversion was completed around 1918.

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

Existing flumes will be re-set and leveled to ensure measurement accuracy in the future. Automated measurement devices will be installed on the existing and new measurement flumes. No other modifications to system features are included in this project.

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

There is one historical feature located near Grace, Idaho, listed on the National Register of Historic Places, the Pegram Truss Railroad Bridge. The bridge will not be impacted by this project. If additional features are identified during the cultural resources survey, they will be avoided. If avoidance is not possible, mitigation practices will be implemented.

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

No, there are no 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 project will not adversely affect low income or minority populations. It is anticipated that the project will benefit the local rural communities.

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

No, the project will not affect tribal lands.

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, the project will not contribute to the spread of noxious weeds. Disturbed areas will be reseeded with native species.

Required Permits or Approvals

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

Note that improvements to Federal facilities that are implemented through any project awarded funding through this NOFO must comply with additional requirements. The Federal government will continue to hold title to the Federal facility and any improvement that is integral to the existing operations of that facility. Please see P.L. 111-11 §9504(a)(3)(B). Reclamation may also require additional reviews and approvals prior to award to ensure that any necessary easements, land use authorizations, or special permits can be approved consistent with the requirements of 43 CFR §429 and that the development will not impact or impair project operations or efficiency.

Should this project receive WaterSMART funding, NEPA compliance will be required. Since the majority of the SCADA sites and equipment are within the existing canal right of way, it is possible to meet NEPA environmental requirements with a simplified EA or categorical exclusion. A FONSI would be prepared and submitted. Engineering and design of the SCADA project would be

completed by a licensed engineer with the construction and SCADA setup being performed by licensed contractors. Construction permits will be obtained by the selected contractor, with Last Chance facilitating access to the SCADA sites. The SCADA Repeater sites would require land use agreements. Last Chance will work with the engineer to plan and obtain feasible repeater locations. The SCADA contractor would be responsible for obtaining the necessary permits for all SCADA telecommunications equipment. The necessary environmental compliance and permits would be contracted through the engineering firm. The construction permits would be contracted through the construction contractor. Any permits required for the SCADA setup would be part of the SCADA contractor agreement.

Overlap or Duplication of Effort Statement

Applicants must provide a statement that addresses if there is any overlap between the proposed project and any other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel. If any overlap exists, applicants must provide a description of the overlap in their application for review.

Applicants must also state if the proposal submitted for consideration under this program does or does not in any way duplicate any proposal or project that has been or will be submitted for funding consideration to any other potential funding source—whether it be Federal or non-Federal. If such a circumstance exists, applicants must detail when the other duplicative proposal(s) were submitted, to whom (Agency name and Financial Assistance program), and when funding decisions are expected to be announced. If at any time a proposal is awarded funds that would be duplicative of the funding requested from Reclamation, applicants must notify the NOFO point of contact or the Program Coordinator immediately.

This project will be considered Phase II of a two-phase project. Phase I was funded by a WaterSMART grant.

Conflict of Interest Disclosure Statement

Conflict of Interest Disclosure Per the Financial Assistance Interior Regulation (FAIR), 2 CFR §1402.112, you must state in your application if any actual or potential conflict of interest exists at the time of submission.

Applicability

This section intends to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under or with respect to Federal financial assistance agreements.

In the procurement of supplies, equipment, construction, and services by recipients and by sub recipients, the conflict of interest provisions in 2 CFR §200.318 apply.

No conflicts of interest are anticipated.

Notification

Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass- through entity in accordance with 2 CFR §200.112.

Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The successful applicant is responsible for notifying the Financial Assistance Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by sub recipients.

Internal controls are in place based on Phase I funding that was previously received.

Restrictions on Lobbying

Non-Federal entities are strictly prohibited from using funds under a grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR §18 and 31 USC §1352.

No lobbying activities will be performed.

Review Procedures

The Financial Assistance Officer will examine each conflict of interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement, and will determine whether a significant potential conflict exists and, if it does, develop an appropriate means for resolving it. Enforcement. Failure to resolve conflicts of interest in a manner that satisfies the government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR §200.339, Remedies for noncompliance, including suspension or debarment (see also 2 CFR §180).

There are no conflicts of interest.

Uniform Audit Reporting Statement

All U.S. states, local governments, federally recognized Indian Tribal governments, and nonprofit organizations expending $750,000 in U.S. dollars or more in Federal award funds in your organization's fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System in accordance with 2 CFR §200 subpart F. U.S. state, local government, federally recognized Indian Tribal governments, and non-profit applicants must state if your organization was or was not required to submit a Single Audit report for the most

recently closed fiscal year. If your organization was required to submit a Single Audit report for the most recently closed fiscal year, provide the Employer Identification Number (EIN) associated with that report and state if it is available through the Federal Audit Clearinghouse website.

No audit was necessary.

Letters of Support

Please include letters from interested stakeholders supporting the proposed project. To ensure your proposal is accurately reviewed, please attach all letters of support/partnership letters as an appendix. Letters of support received after the application deadline for this NOFO will not be considered in evaluating your proposed project. These letters do not count within the 100 page maximum.

Letters of Support are included in Appendix A.

Letters of Partnership

Category B applicants must submit a letter from the Category A partner(s), stating that they are acting in partnership with the applicant and agree to the submittal and content of the proposal (see Section C.1. Eligible Applicants). Letters of Partnership must be received by the application deadline for this NOFO, otherwise the applicant will be considered ineligible, and the proposed project will not be evaluated.

Letters of Partnership are included in Appendix A.

Official Resolution

Include an official resolution adopted by your organization's board of directors or governing body, or, for state government entities, an official authorized to commit the applicant to the financial and legal obligations associated with receipt of a financial assistance award under this NOFO, verifying:

- *The identity of the official with legal authority to enter into an agreement*
- *The board of directors, governing body, or appropriate official who has reviewed and supports the application submitted*
- *That your organization will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement*

An official resolution meeting the requirements set forth above is mandatory. If you are unable to submit the official resolution by the application deadline because of the timing of board meetings or other justifiable reasons, the official resolution may be submitted to sha-dro-fafoa@usbr.gov up to

30 days after the application deadline. This resolution does not count within the 100 page maximum for the application.

The signed Official Resolution is shown in Appendix B.