Quincy-Columbia Basin Irrigation District

Automation of W39.9 Lateral Headgate of the West Canal

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Applicant Information

Application Date: 01/15/2023

Applicant Name: Quincy-Columbia Basin Irrigation District

City, County, State: Quincy, Grant County, Washington

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Requested Reclamation Funding: $78,360; Total Project Cost: $156,720

Project Summary

Provide 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.

Quincy-Columbia Basin Irrigation District (QCBID) is a Category A applicant. QCBID, located in the Columbia Basin Project in central Washington, functions as part of the Columbia Basin Project, providing irrigation to over 680,000 acres serving both rural and urban areas. Moving ahead with the implementation of projects that align with the Columbia Basin Project Coordinated Conservation Plan, the District proposes to install two (2) Rubicon Water automated precision gates (referred to as FlumeGates) at the headgate of the W39.9 lateral.

The FlumeGate's ability to accurately measure high and low flow rates and automatically adjust will increase water use efficiency from 75% (calculated by USBR standards of a radial gate operating in earthen canals) to over 90%, resulting in water savings of around 15%. Installation of the proposed automated gate technology also allows for near-instantaneous reactions to changes in flow rate and can be operated in the field and remotely, boasting a 90%+ water distribution efficiency.

The work at the W39.9 lateral headgate site will involve retrofitting the current concrete gate structure, cutting old concrete out to accommodate the FlumeGates and adding concrete wingwalls to help in normalizing water flow into the FlumeGates. The addition of these gates will automate the canal operations and provide valuable flow data, as well as a heightened ability for district staff to adaptively manage water storage and return flow within the project area. The automation of the canals will lead to greater safety, water savings, and improved service.

Flow data that is collected from these features will add to the district's understanding of water usage patterns and water-losing breaches and provide information to further district

water-saving efforts while allowing the tracking of water savings amounts realized. The total cost to implement the proposed project is $156,720. Of this amount, $78,360 has been committed by the district.

Reclamation's investment of $78,360 would complete the funding necessary to execute this project. The project is expected to start construction in October of 2024, is estimated to be completed in January of 2025, and meets the goals of Columbia Basin Project Coordinated Conservation Plan.

Project Location

Provide detailed information on the proposed project location or project area, including a map showing the geographic location.

The Quincy-Columbia Basin Irrigation District is located in central Washington, within the Bureau of Reclamation's Pacific Northwest Region and is part of Reclamation's Columbia Basin Project. QCBID's headquarters are located on the southern edge of the city of Quincy, WA. The District operates and maintains a portion of the Columbia Basin Project, under contract with the Bureau of Reclamation's Ephrata Field Office.
QCBID's W39.9 lateral headgate is located near the 40-mile marker on QCBID's main canal, known as the West Canal. This project location is approximately 5 miles south of QCBID's headquarters in Quincy, WA. These proposed locations are situated east of the Columbia River near State Route 281 and north of Interstate 90. The coordinates for the W39.9 headgate are 47.167792° N and 119.894371° W.

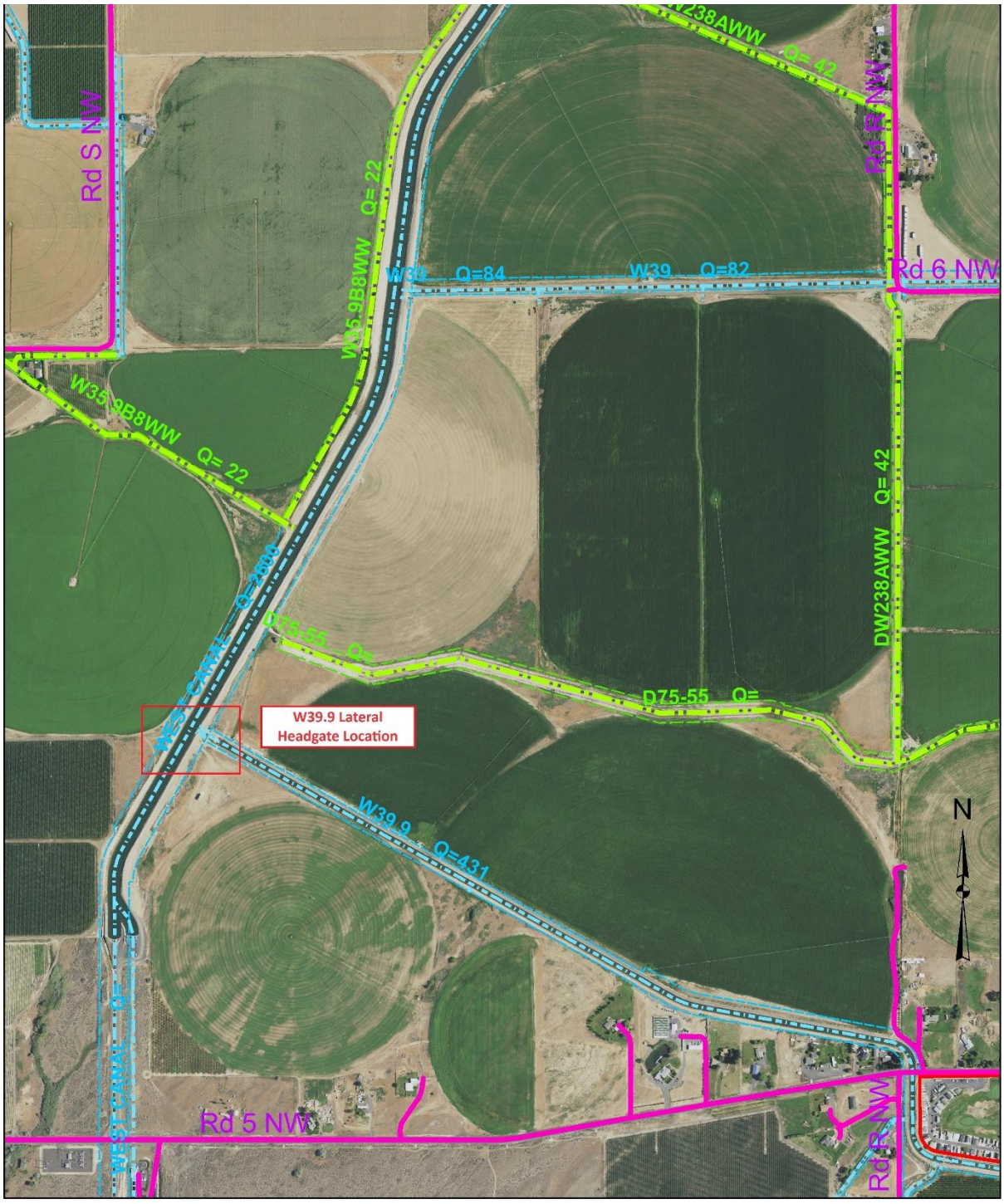


Figure 1 Map Layout of Proposed QCBID Project Site

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

Figure 2 Overhead view of W39.9 headgate and start of lateral

Figure 3 Aerial view of W39.9 headgate

The W39.9 lateral headgate is located just upstream of a hydropower plant which often created fluctuations in upstream flow, which results in unpredictable changes of the water elevation at the W39.9 headgate. As a result, the W39.9 lateral system must be run with more water than is necessary to account for these fluctuations, and often has to be manually adjusted multiple times a day. The excess water exits the system through a wasteway and is ultimately unused. This operational waste contributes to a higher total flow that must be run throughout QCBID's water season, and especially during peak water deliveries excess wasted water can result in dangerously high water levels.

To overcome these challenges, QCBID will replace the existing radial gates at the W39.9 headgate with two (2) Rubicon FlumeGates. The FlumeGate is a precision overshot gate that measures fully submerged flows and mounts directly to the headwall. The FlumeGate is equipped with a separate standalone control pedestal and includes a display and control keypad. As part of its automated control setup, the FlumeGate is able to calculate the flow of water at the W39.9 headgate in real-time and adjust itself to provide accurate, near-instantaneous flow control. Installing FlumeGates will give the W39.9 lateral more than 90% efficiency in water deliveries, and will save 1790 acre-feet annually by reducing wasted water. The W39.9 FlumeGates will also be integrated into QCBID's SCADA system, which allows for real-time remote monitoring and control of the gates.

Evaluation Criteria

Evaluation Criteria A – Project Benefits

Benefits to the Category A Applicant's Water Delivery System: *Describe the expected benefits to the Category A applicant's water delivery system.*

- *Clearly explain the anticipated water management benefits to the Category A applicant's water supply delivery system and water customers.*
  - The precise delivery and management of the QCBID's current flows through the proposed project area will allow the district to measure water returned to the surrounding riparian areas accurately. This quantified amount is then utilized by the district to allow for a better understanding of where water losses may be occurring and allow for more efficient and sustainable management of flows within the canal.

    If the quantity and timing of canal flows and waste are not precise or are unknown, it is difficult to report accurately, plan for future water usage, and prioritize future water savings projects. As the district continues to work to meet the needs of rural and urban customers, managing water throughout the system is increasingly difficult with unknown quantities.

    Adding the proposed flow measuring and water control devices will give the district more efficient and effective flow measurement data to work from. With this information, the district can better time the management and delivery of system water to minimize waste and plan future projects to improve service to patrons and save water.

    This project will help meet the goals of the Columbia Basin Project Coordinated Water Conservation Plan, which identifies canal automation as a means to conserve water. QCBID, through its development of system improvement planning, has identified automation of the W39.9 lateral headgate location as a key water savings opportunity.

- *Explain the significance of the anticipated water management benefits for the Category A applicant's water delivery system and customers. Consider:*
  - *Are customers not currently getting their full water right at certain times of the year?*
  - *Does this project have the potential to prevent lawsuits or water calls?*
  - *What are the consequences of not making the improvement?*

- *Are customer water restrictions currently required?*
- *Other significant concerns that support the need for the project.*

  Automatic regulation of flow will reduce excess spill caused by elevation changes in QCBID's main West Canal. This improved flow management will have many benefits including water conservation (1790 acre feet per year), more reliable water deliveries to farms, reductions in the use of aquatic weed chemicals and their spill to natural waterbodies, and operational cost savings by eliminating the need for manual adjustments.

  This water conservation will also reduce the need for water rationing during peak water delivery in the summer, which takes away from farmers receiving their full water allotment when they need it the most. The proposed project area often experiences varying drought conditions, leading to decreased water availability during peak water delivery seasons for agriculture, industry, and residential use.

  Automated systems can provide real-time monitoring and adaptive control, helping to mitigate the impact of drought and demand on water supplies within the Quincy-Columbia Basin Irrigation District. This project will help meet the goals of the Columbia Basin Project Coordinated Water Conservation Plan which identifies canal automation as means to conserve water. The District through its development of system improvement planning has identified automation of the W39.9 lateral turnout as a key water savings opportunity.

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

- *Will the project improve broader water supply reliability at the sub-basin or basin scale?*
  - Benefits are expected to be geographically localized to the district and its patrons.

- *Is the project in an area that is experiencing, or has recently experienced drought or water scarcity? Will the project help address drought conditions at the sub-basin or basin scale? Please explain.*
  - As referenced previously, the proposed project is within an area that regularly experiences varying drought conditions. The project sites are located within a close vicinity of the Columbia River and the surrounding riparian area, which would see direct benefits from efficient and proper water management. This project is also in an area where adequate water management allows for more efficient management of waters returned to rivers, streams, and lakes, which feed into the Columbia River and, eventually, the Pacific Ocean.

- *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 explain.*
    - ❖ Yes. By reducing the amount of water wasted through spillage and inefficient flow management, additional water flows can be left in the river to augment downstream flows to the Columbia River basin, home to some threatened and endangered species, such as the Columbia Chinook Salmon, Columbia River Steelhead, Bull Trout, Green Sturgeon, and River Lamprey.

- *Will the proposed project positively impact/benefit various sectors and economies within the applicable geographic area (e.g., impacts on agriculture, environment, recreation, and tourism)? Please explain.*
    - ❖ The proposed project will allow for more available water to stay in the canal and be returned to the river system by reducing water delivery inefficiencies that arise from spillage and flow measurement errors. Increasing the amount of water that is kept in the canal positively impacts agricultural producers, residential users, and riparian ecosystems by allowing excess saved water to be released into the Columbia Basin River system.

- *Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the district's water supply)? Please explain.*
    - ❖ QCBID has been coordinating with NRCS to bring over $10 million in available funding to landowners for the purpose of water savings and system improvements. This project would complement this goal of providing district-wide water savings and increasing the water-use efficiency in the Columbia Basin.

Evaluation Criteria B – Planning Efforts Supporting the Project

Plan Description and Objectives: *Is your project supported by a specific planning document or effort? If so, describe the existing plan. When was the plan developed? What is the purpose and objective of the plan?*

- Yes, the proposed project is supported by the 2010 Columbia Basin Project Coordinated Water Conservation Plan document. This plan was written in collaboration with Quincy-Columbia Irrigation District, East Columbia Irrigation District, and South Columbia Irrigation District with the objective of identifying water conservation projects that will allow additional acreage to be served without disrupting the water supply to existing acreage while also remaining water budget neutral to the Columbia River. Projects analyzed in this Plan were obtained from the districts' water conservation plans, with additional projects provided by district managers and staff. The projects were grouped by district and irrigation block and input onto GIS layers for quantitative analysis. The GIS database was provided to the Washington State Department of Ecology and the districts separately for use as desired for future planning endeavors.

Plan Development: *Who developed the planning effort? What is the geographic scope of the plan? If the planning effort was not developed by the Category A applicant, describe the Category A applicant's involvement in developing the planning effort.*

- The three Columbia Basin Project irrigation districts; Quincy-Columbia Basin Irrigation District (QCBID), East Columbia Basin Irrigation District (ECBID), and South Columbia Basin Irrigation District (SCBID); and the Washington State Department of Ecology (WSDE) jointly agreed to prepare this Coordinated Water Conservation Plan with the goal to identify water conservation projects that will allow additional acreage to be served without disrupting the water supply to existing acreage while also remaining water budget neutral to the Columbia River. The water conservation projects are proposed in an effort to address goals established in the December 2004 Memorandum of Understanding between the districts, WSDE, and the U.S. Bureau of Reclamation (Reclamation), the April 2005 Memorandum of Understanding between the East District, WSDE, and Reclamation and RCW 90.90, Columbia River basin water supply. The conserved water would be available as a replacement water supply for groundwater deliveries in the Odessa Subarea, environmental uses, and municipal and industrial water supply. WSDE funded the preparation of the Plan through the Columbia River Water Management Program.

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

- *Is the project identified specifically by name and location in the planning effort?*
  - ❖ Yes, the Quincy-Columbia Irrigation District has identified the W39.9 lateral headgate as a critical location for its operation and has decided that this project falls under the call for water savings in the Coordinated Conservation Plan.

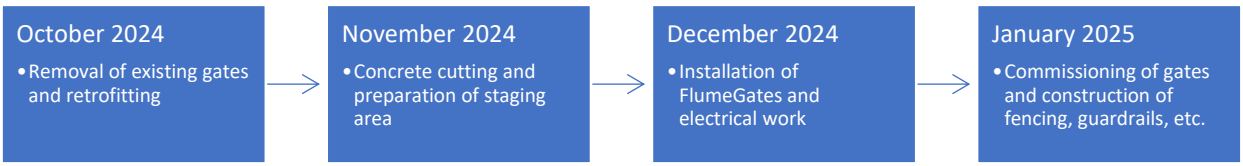
- *Is this type of project identified in the planning effort?*
  - ❖ Yes, automation of canals is specifically identified as an ideal route for more efficient and sustainable long-term water and canal management.

- *Explain whether the proposed project implements a goal or addresses a need or problem identified in the existing planning effort.*
  - ❖ Yes, the proposed project implements the goals of more efficient water management and long-term quantifiable water savings, both goals addressed within the above-mentioned plan. The automation of these headgates will allow QCBID to achieve these goals through the ability to accurately measure high and low flow rates and automatically adjust them. This will increase water use efficiency from 5-10%, resulting in water savings between 10% and 30%. Installation of the proposed automated gate technology also allows for near-instantaneous reactions to changes in flow rate and can be operated in the field and remotely, boasting a 90%+ water distribution efficiency.

- *Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.*
  - ❖ QCBID maintains a rolling list of system improvement items that are influenced by the Coordinated Conservation Plan. Automation of the W39.9 headgate was proposed in 2010 and added to the system improvement list as means to improve flow control and improve operation efficiency. The automation of the W39.9 headgate will save 1790 acre-feet per year, and has been determined as a priority for QCBID because of the immediacy of realized water savings and success of installation of Rubicon gates in the past.

Evaluation Criteria C – Implementation and Results

- *Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.*
  - ❖ The District plans a to implement this project between October of 2024 and January of 2025.
    - Two days will be required for removal of the existing radial gates.
    - Two days will be required for concrete cutting and retrofitting the current concrete structure to fit the new FlumeGates.
    - Three days will be required to install the FlumeGate frames and pedestals, lift the gates into the frame, and wire the control pedestal.
    - One day for commissioning and training by Rubicon in the operation and maintenance of the gates.
    - Approximately two weeks of work will be required for QCBID staff to complete additional concrete work, construct fencing and proper safety structures, and other ancillary work. The scope and cost of this work will be covered by QCBID and is not included in the scope of this grant proposal.



- *Proposals with a budget and budget narrative that provides a reasonable explanation of project costs will be prioritized under this criterion.*
  - ❖ A budget and budget narrative have been provided below.

- *Describe any permits that will be required, along with the process for obtaining such permits.*
  - ❖ No, this project will not require any application for additional permits for completion.

- *Identify and describe any engineering or design work performed specifically in support of the proposed project. What level of engineering design is the project currently? If additional design is required, describe the planned process and timeline for completing the design.*
    - ❖ QCBID staff has performed the design work needed to remove the existing gates, determined modifications needed to be made to the existing concrete structure, and evaluated the FlumeGates sizing and requirements. Rubicon Water staff has provided dimensions and specifications for the FlumeGates. The gates for this project are fabricated off-site, and then installed in the retrofitted district facilities.

- *Describe any new policies or administrative actions required to implement the project.*
    - ❖ After the installation, the timing, measurement, and movement of water will be refined for operational efficiency.

- *Does the applicant have access to the land or water source where the project is located? Has the applicant obtained any easements that are required for the project? If the applicant does not yet have permission to access the project location, describe the process and timeframe for obtaining such permission.*
    - ❖ Yes, the district has full access to both land and water at the locations of the proposed project. QCBID works under contract with the Bureau of Reclamation, and has full access to USBR's rights-of-way and facilities, which cover both the project location and staging area.

- *Identify whether the applicant has contacted the local Reclamation office to discuss the potential environmental and cultural resource compliance requirements for the project and the associated costs. Has a line item been included in the budget for costs associated with compliance? If a contractor needs to complete some of the compliance activities, separate line items should be included in the budget for Reclamation's cost and the contractor's costs.*
    - ❖ The cultural review for the project will be completed by QCBID's cultural resources contractor, ASM Affiliates, Inc., and is expected to be performed and completed by June 30, 2024. The USBR cultural review process is usually completed just prior to the notice to proceed. In the District's experience, this portion is usually communicated to the district after the announcement of the award.

Evaluation Criteria D – Nexus to Reclamation

Describe the nexus between the proposed project and a Reclamation project or activity, including: Is the proposed project connected to a Reclamation project or activity? If so, how? Please consider the following:

- *Does the applicant have a water service, repayment, or operations and maintenance (O&M) contract with Reclamation?*
  - QCBID's facilities and waterways are Transfer Works from the Bureau of Reclamation and the District operates under contract with USBR to receive its water.

- *If the applicant is not a Reclamation contractor, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?*
  - N/A

- *Will the proposed work benefit a Reclamation project area or activity?*
  - The Quincy-Columbia Basin Irrigation District is located within Reclamation's Pacific Northwest Region's Columbia Basin Project. The District operates and maintains the West Canal and its associated facilities for Reclamation under contract no. 14-16-100-6418. The water received is Reclamation project water. The project is on Reclamation project lands and involves Reclamation facilities. The project will contribute water to a basin where a Reclamation project is located.

Evaluation Criteria E – Presidential and DoI Priorities

Sub-criterion No. E1. Climate Change

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.*
  - ❖ Automation of gates throughout the district's canal systems will address the impacts of climate change through the responsible and efficient usage of available water. The use of automated FlumeGates increases water conservation between 5-10% of the W39.9 lateral's total flow, allowing QCBID to operate the lateral more efficiently. Additionally, the automation of the canal negates the need for individual employees to travel to the site and manage the canal. The elimination of routine vehicle travel reduces the overall carbon emissions associated with manual gate operations.

- *Does this proposed project strengthen water supply sustainability to increase resilience to climate change?*
  - ❖ Yes, the project will increase the efficiency and sustainability of the delivery of water to agricultural providers by minimizing spillage through automation. Correctly timed releases aid in application efficiency which increases sustainability and resiliency during times of drought brought on by climate change.

- *Does the proposed project contribute to climate change resiliency in other ways not described above?*
  - ❖ Yes, the data generated by the automated FlumeGates will quantify fluctuations of water in the canal which will lead to improved long-term resource management and drought planning.

Sub-criterion No. E2. Disadvantaged or Underserved Communities

- *Will the proposed project serve or benefit a disadvantaged or historically underserved community? Benefits can include but are not limited to, public health and safety by addressing water quality, new water supplies, or economic growth opportunities.*
  - ❖ The CBP Coordinated Water Conservation Plan of 2010 aims to use water conservation as a tool to allow additional acreage to be farmed while remaining water budget neutral. As a part of the Coordinated Water Conservation Plan, the automation of the W39.9 lateral will contribute to bringing economic growth to the area by opening more opportunities for irrigable farmland.

- *Please use the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool, available online at http://screeningtool.geoplatform.gov, to identify any disadvantaged communities that will benefit from your project.*
    - ❖ Communities found to be disadvantaged via the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool within beneficial proximity to this project include the majority of communities within the area surrounding the proposed project location. The surrounding tracts, including tract 53025010600, and tract 53025010700, are all identified as disadvantaged. These tracts are located within Grant County, WA, with populations ranging from just over 2,000 to just under 8,000.

- *If applicable, describe how the project benefits those disadvantaged or underserved communities identified using the tool. For example, does the project increase reliability for water supplies, improve water quality, provide economic growth opportunities, improve or expand public access to natural areas or recreation, or provide other benefits in a disadvantaged or underserved community?*
    - ❖ The proposed project is beneficial to the above-listed disadvantaged communities by contributing to more reliable and consistent management of water supplies, more predictable and dependable water flow downstream, and a myriad of benefits as seen from the availability of consistent and sustainable water flow and management. Sustainable water sources play a crucial role in promoting health, recreation, education, economic development, and overall well-being in disadvantaged communities. By addressing water-related challenges via canal automation, communities like these can build a foundation for long-term resilience and prosperity.

E.1.5.3. Sub-criterion No. E.3. Tribal Benefits

Points will be awarded based on the extent to which the Project will honor the Federal government's commitments to Tribal Nations.

- *Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for a Tribe?*
    - ❖ Water that is conserved is left in the Columbia River where it is available to meet tribal interests such as providing more water for endangered Salmon.
- *Does the proposed project support Reclamation's Tribal trust responsibilities or Reclamation activity with a tribe?*
    - ❖ No, this project does not provide any known benefits or support for Reclamation's Tribal trust responsibilities or Reclamation activity with a tribe.

- *Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits, such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?*
    - ❖ Water that is conserved is left in the Columbia River where it is available to meet tribal interests such as providing more water for endangered Salmon.

Project Budget

Funding Plan and Letters of Commitment

Please identify the sources of the non-Federal cost-share contribution for the project, including:

- *Any monetary contributions by the applicant towards the cost-share requirement and source of funds (e.g., reserve account, tax revenue, and/or assessments)*
  - The Monetary portion of the project costs, 50% of the project cost, will be covered by the Quincy-Columbia Basin Irrigation District. Source funds will come from 2024 assessments.

- *Any costs that will be contributed by the applicant*
  - The District's contribution to the cost share requirement will be approximately 96.1% monetary and 3.9% in-kind. The District will not seek to include in-kind costs incurred before the anticipated project start date. Project expenses that have already occurred, but which will not be included in the project include administrative and engineering work to provide existing facility designs and review of initial proposal information regarding design concepts for the project.

- *Any third-party in-kind costs (i.e., goods and services provided by a third party)*
  - No other contributions toward the non-Federal portion of project costs are anticipated.
- *Any cash requested or received from other non-Federal entities*
  - None.

- *Any pending funding requests (i.e., grants or loans) that have not yet been approved and explain how the project will be affected if such funding is denied*
  - No other funding requests are pending or proposed for this project at this time.

Budget Proposal

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

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
1. QCBID	$78,360
Non-Federal Subtotal	$78,360
REQESTED RECLAMATION FUNDING	$78,360

Table 2. —Total Project Cost Table

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	$78,360
Costs to be paid by the applicant	$78,360
Value of third-party contributions	$0.00
TOTAL PROJECT COST	$156,720

Table 3. —Budget Proposal W39.9 Lateral Headgate Automation

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity	TOTAL
	$/Unit	Quantity	Type	COST
Salaries and Wages				
Technical Services Assistant Manager	$64/hr	1	1	$64
O&M Assistant Manager	$64/hr	2	1	$128
Quincy Watermaster	$36/hr	16	1	$576
Quincy Assistant Watermaster	$32/hr	40	1	$1,280
Canal Maintenance Staff	$26/hr	40	1	$1,040
Fringe Benefits				
Full-Time Employees	$18/hr	99	1	$ 1,782
Contractual/ Construction				
Rubicon Water (tax included)	$141,850	1	1	$141,850
Environmental and Regulatory Compliance				
Cultural Resources & NEPA	$10,000	1	1	$10,000
TOTAL DIRECT COSTS				$156,720
Indirect Costs				
N/A	--	--	--	--
TOTAL INDIRECT COSTS				$0.00
TOTAL PROJECT COSTS				$156,720

Budget Narrative

Salaries and Wages

The District will provide construction assistance from the Quincy Watermater office. A two-man crew consisting of the Quincy Assistant Watermaster and one Canal Maintenance Staff will be used to remove the existing gate equipment. The same crew will provide assistance to Rubicon Water for supply of equipment or crane services. Construction oversight will be conducted by the Quincy Watermaster. Project oversight and system operating criteria will be provided by the Technical Services Assistant Manager (John Mele), and Operation and Maintenance Assistant Manager (Troy Freeman). Salaries and wages for all positions, as well as estimated hours worked on the project, can be found in Table 3 above.

Fringe Benefits

Fringe benefits are estimated to be approximately $18 per hour. Costs were reported by the District's Human Resource Program Manager and are based on a 2014 survey of all employees.

Travel

There is no travel authorized for this project, nor included in the budget proposal.

Equipment

Equipment expense is not expected for the proposed project.

Materials and Supplies

The District will enter into an agreement with Rubicon Water for the purchase of two new FlumeGates and corresponding SCADA hardware.

Other Expenses

There are no other expected expenses for the proposed project.

Indirect Costs

No indirect costs are expected for the proposed project.

Environmental and Regulatory Compliance Costs

The amount shown in these line items includes an estimated cost for cultural review by a consultant and an amount anticipated to be expended by the USBR during its environmental review process.

Contractual

The District will enter into an agreement with Rubicon Water to perform installation, start-up and commissioning of the new equipment. The District will also enter into an agreement with ASM Affiliates, Inc. to conduct a cultural study to meet USBR's Cultural Review requirements.

Third-Party In-Kind Contributions

The district does not anticipate any contributions matching this description.

Environmental & Cultural Resource Compliance

Please answer the questions from Section H.1. Environmental and Cultural Resource Considerations in this section.

- *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.*
    - There are no known impacts to air and water quality or animal habitat.

- *Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*
    - There are no known listed or proposed to be listed Federal threatened or endangered species, or designated critical habitat 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"? If so, please describe and estimate any impacts the proposed project may have.*
    - No. There are no wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction.

- *When was the water delivery system constructed?*
    - The Columbia Basin Project was set in motion by President Roosevelt, and construction of Grand Coulee Dam began in 1933. A railroad was built to move materials and workers to the building site. Congress authorized the Columbia Basin Irrigation Project in 1943, and the first water deliveries started in 1948. Today, as a result of canal expansion and additional pumping plants, the number of irrigated acres is now over 680,000. In addition, the Columbia Basin Project provides power for millions of homes, controls flooding in the lower Columbia region, creates habitat for endangered species, and provides areas for recreation.

- *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.*

- The project will add automation apparatuses to existing structures. These existing structures were first constructed in 1958. The construction dates vary between October 2024 and January 2025.

- *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.*
  - The West Canal represents a historic property determined eligible for the National Register of Historic Places (NRHP) in association with the CBP. The W39.9 lateral headgate (as a part of the structure of the West Canal) may contribute to the eligibility of the West Canal as a historic property.

- *Are there any known archeological sites in the proposed project area?*
  - No, there are no known archeological sites within 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 have any disproportionately high adverse effects 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, the project will not contribute to any of the above-mentioned impacts to tribal sacred sites or 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?*
  - The project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.

Required Permits and Approvals

No permits will be required for this project. All work will be done on USBR easements which QCBID has full access to.

Official Resolution

The QCBID Board of Directors is meeting on Tuesday, February 6th, 2024, and will adopt an official resolution at that time. That resolution will then be promptly submitted to the Bureau of Reclamation at that time.

Appendices

Appendix A – Excerpt of 2010 Columbia Basin Project Coordinated Water Conservation Plan
Appendix B – 2004 Memorandum of Understanding Concerning the State of Washington's Columbia River Initiative
Appendix C – Excerpt of Rubicon Water's Budget Quotation for two (2) FlumeGates at the W39.9 headgate