WaterSMART Grants: No. R24AS00059

Small-Scale Water Efficiency Projects for Fiscal Year 2025

Wenatchee Watershed Water Smart Gardens Lawn Buy-Back Program

SUBMITTED BY:

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EXECUTIVE SUMMARY

Date: January 15, 2024 Applicant: Chelan County Natural Resources Department Applicant Category: Category A City: Wenatchee County: Chelan State: Washington

PROJECT SUMMARY

County Natural Resources Department (CCNRD) is seeking funding for the Wenatchee Watershed Water Smart Gardens Program (WSG) that will be implemented in the lower Wenatchee Watershed, located in Central Washington. <u>The purpose of this program is to</u> <u>encourage landowners to decrease outdoor water use</u>. The program will utilize an incentivebased rebate program to replace high water input turf landscaping with lower water demand drought tolerant landscaping primarily consisting of native plants. The program is an extension of the existing Icicle Water Smart Gardens program and will enable the county to offer this incentive to an expanded landowner base. The program was created as part of a larger effort identified by the Icicle Work Group to meet the growing municipal and domestic water needs and support adequate instream flow in the context of rapid climate change and increased incidence of extreme low flows and drought.

PROPOSED PROJECT TIMELINE

This program is planned to start January 1, 2025 and run for 24 months, completing all applicable work by December 31, 2026

FEDERAL FACILITY

This project does not take place on a federal facility.

PROJECT LOCATION

The Wenatchee Watershed (HUC-8), is located within Chelan County in Central Washington, stretching from the City of Wenatchee, west to Stevens Pass, encompassing approximately 1,370 square miles, running directly into its confluence with the Columbia River. The Wenatchee Watershed Water Smart Gardens Program will serve those residences that fall within the most streamflow limited and developed portion of the watershed, which includes the middle and lower Wenatchee Watershed (river miles 25–0) and associated subbasins (Figure 1). The region experiences hot, dry summers and cold/snowy winters. However, climate change effects are contributing to increasing water scarcity concerns, with state declared droughts becoming much more common (five droughts declared in less than 20 years).

Wenatchee Watershed Water Smart Gardens Project Coordinates				
Longitudinal Range	47.767°N			
	47.286°N			
Latitudinal Range	121.125°W			
	120.342°W			



Figure 1. Wenatchee Subbasins and Eligible Water Users

TECHNICAL PROJECT DESCRIPTION

The proposed Water Smart Gardens rebate-incentive project will implement a lawn reduction and irrigation efficiency program to residents in 5 sub-basins of the Wenatchee Watershed, thus promoting water conservation and addressing increasing water scarcity. In Chelan County, "approximately 567 cfs (70%) is appropriated for the irrigation of more than 30,000 acres. Icicle Creek is the subbasin with the largest irrigation withdrawal for instantaneous quantity (261 cfs) and annual quantity (29,286 AF/yr)" (Wenatchee River Basin Watershed Assessment, 2003). By participating in the program, residents will not only be conserving water for the community but will be paid back for the removal of water intensive living turf-grass, an updated irrigation system design, and installation of drought-tolerant plants and other permeable landscaping materials (ie. mulch, cobbles, etc.). This program is accessible to water users based on their location within the eligible water basins, which includes three different outdoor water user categories: irrigation district shareholders, municipalities, and private domestic wells. Irrigation district shareholders are those that are connected to an irrigation system and whose outdoor water is managed by the irrigation district. Municipal water users are those that are connected to a municipal water system and whose water is managed by that municipality. Private domestic well water users are those landowners who are not connected to a system, but are reliant on their own well for water supply.

In order to market the program to potential applicants, CCNRD will use secured funding from the Department of Ecology (Ecology) to create an online education and application platform. The platform will include resources for landowners to learn more about the domestic water savings program (Resources: CCNRD, Icicle Strategy Website, Chumstick Coalition – Firewise, Master gardeners, Cascadia Conservation District, Icicle River Middle School demonstration garden), as well as an application to get them started. CCNRD will use the funding from the BOR

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WaterSMART grant to pay for individual landowner reimbursements for lawn removal and irrigation installation with a flat rate of \$2,00/sqft with a \$3,000 maximum reimbursement amount per parcel. Along with direct landowner reimbursements, CCNRD will use BOR funding for staff hours to manage the program which will include conducting outreach, reviewing applications, conducting site visits, documenting site details, and processing refunds. Interested landowners will submit an application form to the Chelan County Natural Resources- Domestic Water Supply team. A CCNRD employee will then review the application for initial screening, meeting the requirements for region, project design, and timeline. CCNRD will then make a site visit to assess their landscape eligibility, offer resources/suggestions for effective and efficient ways to implement drought resilient measures on their proposed conversion site, and document the initial site conditions with photos. Landowners will have the option to either implement the conversion themselves or hire a contractor to do so. CCNRD will provide a list of landscape professionals in the area for the landowners to get them started.

In order to participate in the program, water users must meet the following requirements:

- 1. The residence must be verified as a user of domestic water in the associated Wenatchee sub-watersheds (via GIS parcel search)
- 2. Resident must submit a design plan for approval before breaking ground
- 3. At least 50% of the converted area must be vegetated with drought-tolerant plants
- 4. Resident must install a drip irrigation or other low water yield system
- 5. Conversion must take no longer than 18-months to complete
- 6. The converted area must be maintained for the duration of property ownership

After 18-months, or as soon as the landowner has completed the conversion, a CCNRD employee will re-visit the site to confirm the project was completed to the agreed criteria, document the final square footage converted, and take photos of the new landscape. After these steps have been completed, the landowner will be eligible for reimbursement through the program. With the implementation of this program using the threshold of \$2.00 per square-foot for the average yard size of 1,500 square feet at the maximum rebate amount of \$3000 for 30 residents over a two-year program period, the WSG could conserve approximately 432,187.5 gallons of water. If projections continue at that rate, over a 10-year period the WSG would be looking at 2,160,937.5 gal of water savings for the program.

EVALUATION CRITERION

E.1.1 Evaluation Criterion 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. Address the following: Clearly explain the anticipated water management benefits to the Category A applicant's water supply delivery system and water customers. Consider:

• Will the project result in more efficient management of the water supply?

Yes. This project will result in overall reduction of water consumption watershed wide. Scientists predict agricultural based watersheds like the Wenatchee may lose the capacity to deliver water at current levels due to the impacts of climate change (USDA 2012). By encouraging homeowners to reduce their outdoor domestic water consumption, water suppliers will be able to meet the needs of their customers now and into the future. The following water suppliers and water users that will benefit from this program are: *-Irrigation districts*: Commercial agriculture in the Wenatchee Valley is dominated by Apple and Pear trees which require maximum irrigation input during late summer/early fall before harvest. This is the same time that our streams reach their critical low flow conditions and when homeowners irrigate the most as temperatures are the hottest. During drought conditions, some irrigation districts must implement rationing for their customers to ensure all orchards receive water.

- Several municipal systems (Cashmere, Leavenworth, and Chelan PUD): This project will help municipalities extend their water to meet future growth and prolong the need to access new water.

- *Rural water users:* Chelan County tracks rural water use of private wells through our Water Resource Management Program establish under County Code. Enrolling private domestic well users in the proposed program will result in reductions in outdoor domestic water use, allowing more water to stay in the system.

• Where any conserved water as a result of the project will go and how it will be used? This program, once implemented on a larger scale, will create opportunities for saved water to remain instream or in reserve. Because this program is being offered to residents based on subwatershed regions, the conserved water will exist in varying systems. When water in a municipal system is conserved via the WaterSMART Gardens program, the resulting water goes towards helping the municipality extend their water availability. This means that some of their water can come from this conservation effort to meet future growth, instead of needing to find new water sources. Much of the outdoor domestic water in the region comes from irrigation districts like Cascade Orchards Irrigation Company (COIC), Icicle and Peshastin Irrigation District (IPID), and others. Saving water here will help those districts meet all of their agricultural needs during drought years, and may create opportunities for saved water to remain instream during non-drought years. For individual private wells, water savings from the WaterSMART Gardens Program would stay "in the system" via groundwater which would lend to an environmental benefit to instream base flows.

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 year? During drought conditions the Icicle Peshastin Irrigation District must prorate customers to ³⁄₄ of a share or less depending on river conditions to ensure water makes it to users at the end of the canal. This has a huge impact on the agricultural economy. This project will help save water used on lawns that can be re-directed to commercial agriculture during these critical times. The Wenatchee River and tributaries have an instream flow rule which limits newer water rights that are subject to flows levels. When stream flows are low, approximately 55 interruptible water right holders are told stop their use

• Does this project have the potential to prevent lawsuits or water calls? Yes, there is a long history of lawsuits focused on water in the Wenatchee basin. Some have been focused on water use in the Icicle and Peshastin subbasins specifically focused on the Leavenworth National Fish Hatchery and City of Leavenworth. One of the goals of the Icicle Strategy is to find collaborative solutions to water issues outside of litigation. This project is a part of the comprehensive list of projects being implemented to meet these goals.

• What are the consequences of not making the improvement?

Increasing instream flow is a top priority in all 5 sub-basins included in the proposed program (Icicle, Peshastin, Lower Wenatchee, Chumstick, and Mission Creek) as listed under the associated plans (*Wenantchee Watershed Plan/Wenatchee Implementation Plan, The Upper Columbia Salmon Recovery Plan,* and *The Icicle Strategy*) and can be accomplished through water conservation basin wide. This area is experiencing rapid population growth- more water will be needed for more domestic growth, so any water that can be conserved via a program like this is highly valuable. The consequences of not implementing the program are that municipalities and water purveyors may have to enforce water restrictions and/or would be forced to find new sources of water, which are already limited.

• Are customer water restrictions currently required?

Yes. From mid-summer into fall (when streams are at their lowest and temperatures are the highest) outdoor water needs peak. Orchards demand the most water at the tail end of their growing season in late summer. This low supply/high demand discrepancy is only worsening due to the effects of climate change. In drought years, some orchards at the end of the irrigation systems are not able to access their full water shares. Districts like Icicle Peshastin Irrigation District often must implement share rationing for all water users in their system due to low flows in the river.

• Other significant concerns that support the need for the project.

Water conservation measures, such as landscaping using native plants, or watering during the early morning, are not commonplace in the project area, with many landowners supporting large green lawns throughout the hottest days of the summer. In addition to having direct impact on water availability and conservation, the project will also have the potential to inspire a conservation mind-set basin wide. The resources from this program will be shared county wide so any resident can access them, as will the resulting savings from the implementation of this program. Collectively, a goal is to continue to promote and spread awareness about the importance of water conservation and domestic ways to accomplish such in the county.

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 sub-basin or basin scale? The project will improve water supply reliability at both the basin and sub-basin scales. The proposed lawn buy-back program will be implemented in all five flow-limited sub-basins in the Wenatchee basin, which includes the Icicle, Chumstick, Iower Wenatchee, Peshastin, and Mission Creek sub-watersheds. This will result in water conservation within those sub-basins, which will subsequently result in improved water supply reliability in the Wenatchee basin as a whole. Once successful, this program may expand throughout other areas of Chelan County thus expanding benefits County-wide.

• Will the proposed project increase collaboration and information sharing among water managers in the region? Please explain.

Collaboration on water management within the Wenatchee Watershed has been ongoing for 20 years through Watershed Planning and the Icicle Strategy. This project will enable additional

focused collaboration with municipal water suppliers and irrigation districts while educating individual well users also.

• Is the project in an area that is experiencing, or recently experienced, drought or water scarcity? Will the project help address drought conditions at the sub-basin or basin scale? Please explain.

State declared droughts are fairly common, and have occurred in 2001, 2005, 2009, 2015, 2021 and 2022. Drought conditions occur other years, like 2023 despite not being included in the State-wide declaration. The picture that the extreme drought year of 2015 paints may be a glimpse into the future, as climate models predict 2015 conditions will become routine by 2070 (Mauger et al 2017). The extreme drought of 2015 was accompanied by an Ecology ordered irrigation curtailment. Although this allowed for instream flow rules to be met, it posed extreme economical hardship (agriculture/forestry constitutes 23 percent of the local Chelan County economy.) This project will address future drought conditions by leading to water conservation, which will increase instream flow and help prevent future irrigation curtailments. Improving drought conditions will occur on the sub-basin scale, in the five sub-basins listed above, which will lead to improved drought conditions in the Wenatchee basin as a whole. This project is also a part of the Icicle Strategy, which when implemented will meet ambitious instream flow targets for Icicle Creek.

• 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.

This project will benefit all three salmonid species listed under the Endangered Species Act (ESA), including Upper Columbia spring Chinook (*Oncorhynchus tshawytscha*), listed as endangered, and Upper Columbia steelhead (*Oncorhynchus mykiss*) and Upper Columbia bull trout (*Salvelinus confluentus*), both listed as threatened. Specifically, the project will result in an increase in instream flow, thereby addressing top recommended actions for each project subbasin detailed in guidance found in regional recovery documents and web-based tools, including: 1. The *Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan* (Recovery Plan, UCSRB 2007), 2. The *Biological Strategy to Protect and Restore Salmonid Habitat in the Upper Columbia Region* (Biological Strategy, RTT 2017), and 3. The 2021 webbased *Prioritization map* tool, which was developed by the Regional Technical Team (RTT), is based on quantitative habitat and fish data, and is available at <u>https://prioritization.ucsrb.org/</u>.

• Will the proposed project positively impact/benefit various sectors and economies within the applicable geographic area (e.g., impacts to agriculture, environment, recreation, and tourism)? Please explain.

Yes. The economy of Chelan County is made up of 23% agriculture and forestry, with the county being the largest producer of winter pears in the nation (VSP, 2014). Benefits to the agricultural economy are robust, as more reliable water supply means more reliable crop production and income for agriculturists in the area. Additionally, by incentivizing irrigation system and xeric-landscape design improvements, the project is expected to create business opportunities for local landscape designers and installers. Water savings within municipal systems will help Cities like Leavenworth meet growth through conservation, delaying the need to invest in expanded water systems.

• Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the districts water supply)? Please explain.

No. This project will not be in coordination with NRCS in our area.

E.2.1 Evaluation Criterion 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?

The proposed Water Smart Gardens program is supported by several specific planning documents and efforts, including:

The Wenatchee River Watershed Management Plan and the Wenatchee Watershed Detailed Implementation Plan: The Wenatchee Watershed Plan was completed in 2006 in response to the 1998 Watershed Management Act (RCW 90.82). This Plan focuses on characterizing water resource issues and identifying actions to manage water resources and improve conditions into the future. The WRIA 45 Phase IV Detailed Implementation Plan (Implementation Plan) includes an extensive prioritization process that includes outdoor water conservation practices in these priority subbasins as a high priority.

The Upper Columbia Salmon Recovery Plan (UCSRB 2007) and associated Appendices and Prioritization web-tools: The Upper Columbia Salmon Recovery Plan was developed in 2007, in response to ESA listings. This plan was coordinated closely with the Wenatchee Watershed Planning Process so habitat and instream flow recommendations remain consistent in both plans. Appendix H of the Plan, "A Biological Strategy to Protect and Restore Salmonid Habitat in the Upper Columbia Region" provides specific restoration and prioritization guidance and was originally developed in 2007 but is frequently updated in a new Prioritization web-map. Recommendations in these resources point to increasing instream flows in all of these priority subbasins., with the most recent update in 2017.

The Icicle Strategy.: Icicle Creek Water Resource Management Strategy (Icicle Strategy) was developed by the Icicle Work Group (IWG) in 2019. The IWG consists of a variety of Icicle Creek stakeholders including local, state and federal agencies, tribes, irrigation districts, and environmental groups who joined with the purpose to develop this comprehensive plan through a collaborative process that will achieve diverse benefits defined by a set of guiding principles: improved stream flow, a sustainable fish hatchery, ensuring that Tribal Treaty and federally- protected fishing rights are met, provide additional water to meet municipal and domestic demand, improve agricultural reliability, improve ecosystem health, and protect non-treaty harvest all while complying with all state and federal laws and Wilderness Acts. The Strategy includes a set of projects, that will collectively meet all of the guiding principles.

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.

<u>The Wenatchee Watershed Plan and Wenatchee Implementation Plan</u> covers the entirety of the Wenatchee watershed, all of which lies within Chelan County. The Plans were developed by the Wenatchee Watershed Planning Unit (WWPU), which was a collaborative group that includes 28 organizations including federal, state, local agencies, tribes, and non-governmental

entities, agricultural and environmental representatives. Chelan County (the Category A Applicant) was the lead organization in coordinating the effort.

<u>The Upper Columbia Salmon Recovery Plan, Biological Strategy, and Prioritization</u> web tool cover the Upper Columbia Region, which includes the Wenatchee. The Plan was developed by the Upper Columbia Salmon Recovery Board, which includes a five-member board with representatives from the Yakama Nation, Colville Confederated Tribes, and a County Commissioner from each of the three counties. The Director of CCNRD was also on the board at the time of plan development. The Biological Strategy and Prioritization were developed by the Upper Columbia Regional Technical Team (UCRTT), a consortium of biologists and scientists that coordinate, review, and advise on technical issues, habitat projects and monitoring concerning aquatic resources within the Upper Columbia.

<u>The Icicle Strategy</u> was developed by Chelan County and DOE, who convened the Icicle Work Group, which consists of a variety of Icicle Creek stakeholders including local, state and federal agencies, tribes, irrigation districts, and environmental groups who joined with the purpose to address water issues in the Icicle subbasin. CCNRD played a crucial role in the creation of this strategy and continues to work towards the implementation of the identified practices to accomplish its goals. The geographic scope of this plan begins at the headwaters of Icicle Creek in the Alpine Lakes Wilderness area above the town of Leavenworth, to the irrigation canals that divert from the Icicle (COIC & IPID) who service as far east as Monitor, WA.

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

• Is the project identified specifically by name and location in the planning effort? The lawn buy-back program is specifically called out in the final PEIS for the icicle subbasin and is an important part of the water conservation strategies within the Icicle Strategy.

• Is this type of project identified in the planning effort?

The lawn buy-back program is not specifically referenced in the Upper Columbia and Wenatchee planning documents, but general domestic water conservation and irrigation efficiencies are. In addition, education about water conservation options and incentivized solutions to irrigation efficiency are listed as high priority implementation actions in both the Wenatchee Watershed Plan and the Detailed Implementation Plan.

• Explain whether the proposed project implement a goal, objective, or address a need or problem identified in the existing planning effort?

This project is supported directly by efforts identified in the Icicle Strategy, which names a lawns reduction program as a way of domestic water conservation- a guiding principle for the strategy. This project helps implement irrigation conservation and efficiency goals in the Wenatchee Watershed Plan and help with instream flow improvement goals within the Salmon Recovery Plan.

• Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.

The sub-watersheds included in the proposed effort were included specifically because they were called out in the Wenatchee Watershed Plan and Upper Columbia Salmon Recovery Plan as stream flow limited watersheds with chronic low flows in summer and limited water quantity. Specifically, the Wenatchee watershed plan lists limited water quantity as a primary

issue in all five watersheds that "affects water quality, instream salmon habitat conditions, and impacts the ability to meet current and future out-of-stream needs" (WWPU 2006). Additionally, the Salmon Recovery Prioritization lists low summer base flows as a rank 1, "unacceptable" limiting factor to ESA-listed species recovery in all five sub-basins. (RTT 2021). The proposed project will address the issue of chronic low base flows by implementing specific recommendations including in these plans. These recommendations are as follows: encourage additional conservation measures where needed, encourage incentive-based solutions (WWPU 2006 and WWPU 2008), encourage the County to provide information and education about water conservation options (WWPU 2006 and WWPU 2008), and in all five subbasins "improve irrigation efficiencies" (UCRTT 2017).

E.3.1 Evaluation Criterion C – PROJECT IMPLEMENTATION

Applicants that describe a detailed 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.

• 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.

TASK IMPLEMENTATION

Task 1- Program Administration: The program manager will oversee administration of the program which includes but is not limited to: grant management and reporting, submitting cost reimbursements and progress reports, tracking financial expenditures, coordinating project tasks and tracking schedules.

Task 2- Outreach: CCNRD and its selected consultants will create promotional flyers/postcards for water users in the associated watershed area, targeting residential and vacation properties. A sub-page of the Counties website will be published with the promotional materials as well as resources for landowners considering conversion on their property. The program manager and supporting staff will also table at local events to promote the program locally and engage the community.

Task 3- Application Review and Site Inspections: The program manager will review landowner applications for completeness and see out any necessary communication with landowner. Once initial approval has been granted by CCNRD, the program manager, or other trained personnel, will complete a site inspection on the parcel to verify that the landscape matches the application, and the proposed design is both realistic and meets the requirements of the program. Once on-site inspection is complete, a final notice of approval will be sent to the applicant that indicates their property is cleared to commence landscaping per their design. Upon implementation, the landowner will notify CCNRD of project completion and the program manager or other qualified personnel will initiate the final site inspection to ensure that construction followed the design plan, and all requirements were met.

Task 4- Reimbursement: Once the final site inspection has been completed and verified, the program manager and/or chief accountant at CCNRD will initiate reimbursement for the landowner for the amount per square foot converted. This task will include a project completion report for each participant in the program that will state how much lawn was

converted, project photos, and their eligible reimbursement amount which will act as a deliverable for this task.

Task 5- Grant Management & Reporting: The program manager will oversee and complete any necessary management and reporting tasks related to the grant agreement.

Project Timeline:

Task	February 2025	March 2025-	July-October	October-December
	–March 2026	June 2026	2025 & 2026	2025 & 2026
Task 1- program				
administration				
Task 2- Outreach				
Task 3- Application				
Review & Site Inspections				
Task 4- Reimbursement				
Task 5- Grant				
management & Reporting				

Timeline is based on January 1, 2025 start date

• Describe any permits and agency approvals that will be required along with the process and timeframe for obtaining such permits or approvals.

No permits are required for the completion of this project. All necessary approvals for the program will be handles by CCNRD. CCNRD will coordinate with the Cities of Leavenworth and Cashmere to conduct outreach to City residents.

• 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.

There is no engineering or design performed for the project. We will be offering design tools for landowners to use as they design their own Xeric styled landscape.

• 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.

Access to land for site inspections will be granted as a part of the application process for landowner involvement. When a landowner submits an application, they will be allowing access to their property for a preliminary inspection and a completion inspection.

• 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 will need to complete some of the compliance activities, separate line items should be included in the budget for Reclamation's costs and the contractor's costs.

At the time of submission of this application, CCNRD has not contacted the local Reclamation office to discuss the environmental and cultural resource compliance requirements. However, CCNRD has been the recipient of BOR WaterSmart Grant funding in the past and is aware of the

compliance requirements and associated costs. For this project, the eligible parcels will be residential parcels that have been previously developed. Any work or ground disturbances will be administered by the landowner.

E.4.1 Evaluation Criterion 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?

No. Chelan County does not 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?

No. Chelan County does not receive water through a Reclamation contractor.

• Will the proposed work benefit a Reclamation Project area or activity?

This project is a part of the Icicle Strategy, which is focused on resolving longstanding water resource issues in Icicle Creek. The Bureau of Reclamation is an active member of the IWG through its obligations and involvement at the Leavenworth National Fish Hatchery (LNFH) and partnership with US Fish and Wildlife Service. Reclamation has invested funds and implemented projects at LNFH that are also a part of the Icicle Strategy including the SWISP, pilot pRAS, and Snow Lake valve projects. Reclamation has also provided valuable support in the development of the Cascade Orchard Irrigation Company's (COIC) pump station and piping project scheduled for implementation in 2024-2025. CCNRD is overseeing construction of the COIC project which will remove COIC from the shared diversion with LNFH, which is critical to the successful implementation of the LNFH's Surface Water Intake and Fish Screen Project and LNFH's compliance under the 2017 Biological Opinion.

This project also compliments other projects recently funded by Reclamation's WaterSMART program including: Cascade Orchard Irrigation Company Irrigation Efficiency and Pump Exchange Project, City of Leavenworth Advanced Metering Infrastructure Project, Yaksum Water Company Pipeline Replacement Project, and the Fromm (Icicle Creek) Streambank and Riparian Restoration Project. This Water Smart Garden Project will be available to all COIC shareholders, City of Leavenworth Water Users and Yaksum Water Company users, which will help expand the goals of multiple projects.

E.5.1 Evaluation Criteria C- PRESIDENTIAL & DEPARTMENT OF THE INTERIOR PRIORITIES

E.1.5.1. Sub-criterion No. E1. Climate Change

• Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.

This project will be implemented in the Columbia River Basin- a priority basin as identified in the BOR *Secure Water Act Report, 2021.* Scientists predict municipal and agricultural watersheds, such as those found in Chelan County (agriculture/forestry constitutes 23% of the local economy) may lose the capacity to deliver water at current levels due to the impacts of climate change (USDA 2012). According to the local Strategy, this Water Smart Gardens

program is an integral component of meeting one of the primary guiding principles of the plan, securing domestic water supply for future growth. As population in the area grows, the demand on domestic water supply increases and programs like this will help secure and save water for out of stream purposes (domestic, irrigation, hatchery production). Securing this water and saving/storing it has the potential to both increase baseflows and reduce the likelihood of irrigation curtailments like the one the WA Ecology ordered in response to extremely low baseflows in 2015. Higher baseflow will also expand ESA-listed salmonid habitat.

• Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?

Yes. This project will help all water users be more resilient by enabling water users to adapt to future climate change conditions and be more prepared to meet demand. The program will reduce domestic demand on water from each basin, which will enable water users to manage their water use in a more sustainable way. The reduction in domestic use allows these water users to either store, save up, or return water to the basins for instream benefit. All these actions help boost climate resiliency for the proposed project area.

E.1.5.2. Sub-criterion No. E2. Disadvantaged or Underserved Communities

• Please use the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool to identify any disadvantaged communities that will benefit from your project.

The census tract that encompasses the project area is not considered disadvantaged based on the Climate & Economic Justice Screening Tool available at geoplatform.gov. However, Washington Tracking Network (<u>https://fortress.wa.gov/doh/wtn/WTNIBL/</u>), managed by the WA Department of Health, tracks environmental public health data across Washington State and identifies multiple high risk socioeconomic factors in the area that overlap with the geographic implementation area spanning from just east of Leavenworth to Monitor, approximately 20 river miles down-stream. This geographic area excludes the watersheds of Chumstick and Icicle, which do not have high risk socioeconomic factors, but are extremely high priority for water conservation in the count. The ranking with a scale of 1 to 10, 10 being the highest risk factor, for the associated communities is as follows:

- 1. Overall Socioeconomic Factors: 9 out of 10
- 2. Limited English: 8 out of 10
- 3. No High School Diploma: 10 out of 10
- 4. People of Color: 7 out of 10
- 5. People Living in Poverty: 7 out of 10
- 6. Transportation Expense: 10 out of 10
- 7. Unemployed: 6 out of 10

According to the latest census data, Chelan County is 29 percent Hispanic, 67 percent white. The high risk ratings listed above are likely attributable to the underserved Hispanic community. U.S. Hispanics are also more likely to live in poverty, make only 35 percent of the income on average than the average U.S. citizen, are less likely to have a college education (Bartman 2015). The low average income and educational attainment of Hispanics are obstacles to receiving timely and appropriate health care (Escarce and Kapur 2006).

• If applicable, describe how the project benefits those disadvantaged or underserved communities identified using the tool. For example, does the project increase reliability of 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?

Historically, Hispanic people in the U.S. have faced racial, ethnic, and anti-immigrant prejudice, including discrimination in employment, housing and education (Feagin and Cobas 2014). Creating stability in the agricultural community of Chelan County by mitigating drought through the proposed project can help create more stable employment for the agricultural farm working community, which is 60 percent Hispanic in WA state (Berk Consulting 2022). This stable employment can help current and future generations receive education, healthcare, and housing.

E.1.5.3. Sub-criterion No. E3. Tribal Benefits

• Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for a Tribe?

Yes. The project area includes the ancestral lands of members of both the Confederated Tribes and Bands of the Yakama Nation and the Confederated Tribes of the Colville Reservation. The Yakama Nation is one of four Columbia River basin Treaty Tribes, and the Colville Tribes were established by Executive Order. Both Yakama Nation and Colville Tribes are active members of the Icicle Strategy and support this project. Implementation of this lawn buy-back program will benefit Icicle Creek and other streams by reducing the amount of water diverted and improving conditions for hatchery produced spring Chinook salmon that support important Tribal harvest rights on Icicle Creek.

• 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?

Yes. The potential water savings from this domestic water conservation effort has the potential to benefit these tribal fishing rights. Summer steelhead and spring Chinook are culturally important fish to the Yakama Nation and Colville Wenatchi tribes. These tribes maintain non-exclusive fishing rights at the confluence of Icicle Creek and the Wenatchee River. Improved climate resilience by way of benefitting instream flow and expanded spawning and cold-water rearing opportunities for these species will benefit these important tribal fisheries. Tribal interests play an integral part in the CCNRD-led "Icicle Work Group" which includes the development of collaborative strategies to support and optimize a wide range of in-stream and out-of-stream uses related to the Icicle subbasin. CCNRD enjoys its partnership with the Tribes and will continue to work with the Tribes on current and future habitat restoration projects.

• Does the proposed project support Reclamation's Tribal trust responsibilities or a Reclamation activity with a Tribe?

As described above, this project supports Reclamation's Tribal trust responsibilities by directly collaborating with Tribes, and supporting tribal priorities such as a Tribal harvest program on Icicle Creek at the Leavenworth National Fish Hatchery.

Project Budget

Project Narrative

This project budget was developed based on previous CCNRD project experiences for staff time requirements, current pricing of necessary supplies, quotes from local printing and mailing distribution companies for outreach, contractual services based on CCNRD previous experience for time and cost, and a rebate incentive of \$2.00 per square foot with a maximum of 1,500 square feet of eligible landscape conversion (\$3,000 max. per applicant, with a threshold of 30 applicants).

CCNRD staff time (salaries, wages and fringe benefits) will be utilized for conducting project administration, financial administration, outreach, landowner and stakeholder coordination, site visits, program application review and management, and environmental and cultural compliance tasks. Indirect costs are based off of salaries/wages. Chelan County has a federally negotiated indirect rate. The indirect allocation includes costs for buildings, IT, facilities maintenance, treasurer costs, etc. It does not include our departments director or financial administration which is why we are accounting for them as direct costs. Travel expenses are expected for conducting site visits to assess applicant eligibility. A detailed breakdown of department rates for staff time, indirect, and mileage can be found in Appendix C-F.

Budget Tables

Table 1. Non-federal and Federal Funding Requests

Funding Sources	Amount
Non-Federal Entities	
1. Chelan County	\$77,405.50
Requested from Reclamation	\$77,405.50
Total Project Cost	\$154,811.00

Table 2. Budget Proposal

	Computation					
Budget Item Description	Quantity	\$/Unit	Total Cost			
Salaries and Wages						
Sr. Natural Resource Specialist	60	\$50	\$3,002			
Chief Accountant	60	\$41	\$2,470			
Director	20	\$67	\$1,343			
Natural Resource Specialist 1	300	\$33	\$10,035			
Natural Resource Specialist 2	80	\$35	\$2,800			
Field Technician	60	\$26	\$1,560			
Subtotal Salaries an	\$21,211					
Fringe Benefits						
Sr. Natural Resource Specialist	16	60.00	\$956			
Chief Accountant	14	60.00	\$811			
Director	18	20.00	\$368			
Natural Resource Specialist 1	12	300.00	\$3,621			
Natural Resource Specialist 2	12	80.00	\$990			
Field Technician	2	60.00	\$122			
Subtotal Fringe Benefits			\$6,869			
Travel						
Site inspections	1200	2	\$2,472			
Supplies						
Measuring tape	1	\$20	\$20			
Measuring wheel	1	\$70	\$70			
Postcard/Mailer printing	20000	\$0.11	\$2,200			
Postcard/Mailer dispersal	20000	\$0.09	\$1,800			
Postcard/Mailer postage	20000	\$0.29	\$5,800			
Subtotal Supp	lies		\$9,890			
Contractual						
Consultant services			\$10,000			
Cultural Resources			\$10,000			
Subtotal Contra	\$20,000					
Other Direct Costs						
Turf Removal Incentive	30	\$3,000	\$90 000			
Reimbursement	50	JJ,000	9 .00 ,000			
Indirect						
See indirect cost rate agreement	\$21,211	20.60%	\$4,369			
Total	\$154.811					

Environmental and Cultural Resources Compliance

Environmental Compliance: Cultural and ESA NEPA

ESA Species: Lynx (Lynx canadensis) Gray wolf (Canis lupis) Wolverine (Gulo gulo luscus) Northern Spotted Owl (Strix occidentalis caurina) Yellow-billed cuckoo (Coccyzus americanus) bull trout

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.

This project is not anticipated to have any profound or long-lasting negative effects on the surrounding environment. This project focuses on the removal and replacement of traditional turf-grass landscaping with drought tolerant, low water demand landscaping methods and native plants. As such, the exact method of turf-grass removal will be at each landowner's discretion. Removal of existing turf-grass lawn removal may result in minor, temporary, and localized impacts to air quality through creation of dust. There are no expected impacts to water quality during the implementation phases of this project. Conversely, successful implementation of this project will aid in improved water quality of the Project Area Watersheds as drought tolerant native plant focused landscapes drastically reduce the need for fertilizer and herbicide/pesticide applications. Successful implementation of this project will also improve animal habitat through the increased availability of native plants for foraging, nesting and pollinator 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?

Yes, U.S. Fish and Wildlife Service (USFWS), Via IPaC, indicates that Canada Lynx (Lynx canadensis), Gray wolf (Canis lupus), Wolverine (Gulo gulo), Northern Spotted Owl (Strix occidentalis caurina), Yellow-billed Cuckoo (Coccyzus americanus), and Bull Trout (Salvelinus confluentus) as threatened or endangered species that may occur within the project area. Critical habitats listed include Bull Trout and Northern Spotted Owl. Activities associated with this project are not anticipated to have any lasting or negative impacts on the species or habitats previously mentioned. This project will primarily occur in previously developed urban areas that are not suitable or likely for the listed species to occur and critical habitats are not present.

• 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.

There are mapped wetlands that potentially fall under CWA jurisdiction within the project area. Project actions will not be conducted in existing wetlands; therefore, existing wetlands will not experience any impacts from implementation of this project. Major surface waters that exist within the project boundaries are the Wenatchee River, Icicle Creek, Chumstick Creek and their tributaries. These waters have been declared non-navigable and not under federal jurisdiction. Additionally, actions associated with this project are not expected to result in negative impacts to surface waters. Conversely, successful implementation of this project should yield long term results of increased stream flow within adjacent surface waters. One goal of this project is to reduce the residential demand of irrigation water resulting in less demand of surface water for irrigation purposes.

• When was the water delivery system constructed?

Cascade Orchard Irrigation Company (COIC) began water delivery to its shareholders in 1911. Icicle- Irrigation District (IID) and Peshastin Irrigation District (PID) respectively began water delivery in 1917. IID and PID are each under the direction of the same board of directors and have been jointly managed for the entirety of their operation. The districts are currently undergoing the processing of merging into one irrigation district, IPID, and will be referred to as such.

• 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.

No. This project will focus on removal of turf-grass lawns and replacing with drought tolerant, native plant focused, "Xeriscape" style landscaping.

• 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.

Buildings, structures, infrastructure or any features of the local irrigation districts will not be affected by this project.

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

There are known archeological sites within the mapped project area, however, this project will not have any impact on those known sites. Implementation of the proposed project is not expected to have any impacts on these known sites. Existing lawns that would qualify for the lawn buy back are located on residential properties that have already been developed. New construction will also be eligible for this project, all applicable Cultural Resource review regulations and guidance will be followed for parcels under new construction.

• Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

All customers of City of Leavenworth Water, Cascade Orchards Irrigation Company and Icicle-Peshastin Irrigation District will be eligible for this lawn buy-back program provided they meet the programs qualifications. This will not pose any disproportionately high or adverse effects on low income or minority populations. This project will actually benefit low income and minority populations by offering a financial reimbursement. Financial reimbursement will lessen the financial barrier to low income populations to install water efficient landscaping.

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

No

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

No

Required Permits or Approvals

Applicants who apply for the Water Smart Gardens program will be identified in the review process if their proposed project requires special permitting from Chelan County Community Development. Given the type of landscaping that is eligible under this program we do not anticipate encountering this often.

Overlap/Duplication of Effort Statement

This project does not overlap or duplicate similar efforts taking place in Chelan County.

Conflict of Interest Statement

This project does not pose any conflict of interest for Chelan County.

References

Bureau of Reclamation. SECURE Water Act Section 9503(c) — Reclamation Climate Change and Water. 2021

Chelan County. Voluntary Stewardship Program (VSP). 2014

Icicle Strategy. Final Programmatic Environmental Impact Statement for the Icicle Creek Water Resource Management Strategy. 2019

Gaines et al. Adaptations to Climate Change: Colville and Okanogan-Wenatchee National Forests. 2012

- Upper Columbia Salmon Recovery Board. Upper Columbia Spring Chinook Salmon and Steelhead Recovery Pln. 2007
- Upper Columbia Salmon Recovery Board. *Memorandum to the Biological Strategy Watershed Priority*. 2017
- Wenatchee Watershed Planning Unit (WWPU) and Chelan County Natural Resource Program. Wenatchee River Basin Watershed Assessment. 2003
- Wenatchee Watershed Planning Unit (WWPU). Wenatchee Watershed Management Plan. 2006
- Wenatchee Watershed Planning Unit (WWPU). Wenatchee Watershed Planning Phase IV Detailed Implementation Plan. 2008
- Wenatchee Watershed Planning Unit (WWPU). *Mission Creek Water Quality Restoration Plan.* 2008

Appendices

Appendix A: Icicle Work Group Letter of Support



December 27, 2023

Nickie McCann Bureau of Reclamation Water Resources and Planning Office P.O. Box 25007 Denver, CO 80225-0007

RE: Wenatchee Watershed WaterSMART Gardens

Dear Ms. McCann,

On behalf of the members of the Icicle Work Group, we are pleased to submit this letter of support for Chelan County's application to the Bureau of Reclamation for the *WaterSMART Small Scale Water Efficiency Projects* grant.

The Icicle Work Group was formed in December 2012 to "find collaborative solutions for water management within the Icicle Creek drainage" while meeting various needs and interests within the basin. The Icicle Work Group has made great progress over ten years and has developed a strategy that will result in lasting solutions in the basin. The Icicle Work Group is driven by a set of guiding principles that outline objectives to accomplish the Groups mission. One of those principles is to meet growing domestic and municipal water needs by way of domestic conservation practices. The proposed project for the BOR WaterSMART grant has the potential for water savings and will promote domestic conservation basin wide. We believe that this project will benefit the counties domestic water supply as well as help accomplish the IWG's guiding principles.

The Icicle Work Group is made up of a diverse set of stakeholders within Icicle Creek. Members include federal, state and local agencies, Tribes, environmental organizations and the four major water right holders within Icicle Creek. We hope that the Bureau of Reclamation will support this project and the efforts of the Icicle Work Group.

Please let us know if we can provide any additional information. Thank you for your consideration.

Sincerely,

1440587 11 DOWNES

Melissa Downes Department of Ecology- Office of Columbia River Co-convener, Icicle Work Group

Mike Kaputa, Director Chelan County Natural Resource Dept. Co-convener, Icicle Work Group

Appendix B: City of Leavenworth Letter of Support



City of Leabenworth 700 Highway 2 / PO Box 287 Leavenworth, Washington 98826 (509) 548-5275 / Fax (509) 548-6429 www.cityofleavenworth.com City Council Carl J. Florea - *Mayor* Sharon Waters Clint Strand Anne Hessburg - *Mayor Pro Tem* Zeke Reister Rhona Baron Shane Thayer Travis McMaster

January 5, 2024

Nickie McCann Bureau of Reclamation Water Resources and Planning Office P.O. Box 25007 Denver, CO 80225-0007

RE: application for Wenatchee Watershed WaterSMART Gardens Program

Dear Ms. McCann,

The City of Leavenworth is pleased to submit this letter of support for Chelan County's Wenatchee Watershed WaterSMART Gardens Program application to the Bureau of Reclamation for their Small-Scale Water and Energy Efficiency grant opportunity.

The City of Leavenworth has been a member of The Icicle Work Group, a group formed to meet various stakeholder and environmental needs in the Icicle Creek basin, since its inception in 2012. The Icicle Work Group is driven by a set of guiding principles that outline objectives to accomplish the Groups mission. One of those principles is to meet growing domestic and municipal water needs by way of domestic conservation practices. As a member of the Group, the City shows its continued committed support for meeting the guiding principles through its own work in the basin to meet growing domestic and municipal needs by way of numerous projects, including replacement of all city water meters, funded through a 2020 WaterSMART grant.

The county's proposed project for the Bureau of Reclamation WaterSMART grant has potential water savings and would promote domestic conservation basin wide. We believe that this project will benefit both the county's and City's domestic water supply as well as help accomplish the IWG's guiding principles. We hope that the Bureau of Reclamation will support this project and the efforts of the Icicle work Group.

Please let us know if we can provide any additional information.

Thank you for your consideration.

Sincerely,

Carl Florea, Mayor

Appendix C: Chelan County Board of Commissioners Official Resolution

Resolution No. 2024-3

RE: Resolution Supporting Chelan County application to the US Bureau of Reclamation WaterSMART Small-Scale Water Efficiency Projects (No. R24AS00059) for the Water Smart Gardens Program

WHEREAS, the Wenatchee Watershed in Chelan County, Washington is a high priority watershed for addressing critical needs for water supply and conservation; and

WHEREAS, Chelan County is establishing a program through which domestic water users can reduce water consumption by replacing turf lawns with drought tolerant lawn; and

WHEREAS, the project addresses the critical needs of the watershed for water conservation and irrigation efficiency improvements as outlined in the Wenatchee Watershed Management Plan and the Icicle Strategy; and

WHEREAS, Chelan County has the capability to provide the funding and in-kind contributions specified in the funding plan;

NOW, THEREFORE BE IT RESOLVED, that:

- The Chelan County Natural Resource Director is authorized to make formal application to the US Bureau of Reclamation for grant assistance and enter into a funding agreement;
- The Natural Resource Director has reviewed the grant application on behalf of Chelan County;
- Chelan County certifies that the matching funds identified in the grant application shall be provided if the grant application is successful;
- 4. The Natural Resource Director and staff will work with the US Bureau of Reclamation to meet established deadlines for entering into a financial assistance agreement; and
- 5. This resolution becomes part of the grant application.

Dated this 2024 BOARD OF COUNTY COMMISSIONERS "HIIIII Clerk of the Board

CHAIRMAN

HON SMITH. COMMISSIONER COMMISSI