**WRIA 8 Supplemental Grant Application Form – Habitat Protection and Restoration Projects**

**Project Name: Seawest Granston (Middle Bear Creek) Restoration Project**

**Project Sponsor: King County WLRD**

*Benefits to Chinook*

1. How will the project enhance or protect existing juvenile Chinook salmon rearing habitat, create habitat that is intended to support the juvenile life history stage, or otherwise provide lift to a habitat type that is limiting to juvenile Chinook salmon?

This project will improve juvenile Chinook salmon rearing habitat through the almost 3,000 lineal feet of creek in the Middle Bear Creek Natural Area and benefits will convey downstream. Intensive riparian plantings will reduce reed canary grass dominance, provide shade, structure and future LWD source to the stream channel, and leverage the presence and actions of beaver already working in the reach but with very sparse resources. Providing the food and resources for beaver to expand their activities in the reach will raise water elevations, inundate existing remnant channels and off-channel features, and increase groundwater interchange to reduce water temperatures. More frequently inundated off-channel habitats, slower water velocities and increased channel complexity will enhance juvenile Chinook rearing habitat within the reach and provide benefits to habitat quality downstream.

1. What WRIA 8 recovery strategies are targeted by this project? (Refer to [Appendix E (Recovery Strategies)](http://www.govlink.org/watersheds/8/reports/pdf/1709-8207m-appendix-e.pdf) of the *2017 WRIA 8 Chinook Salmon Conservation Plan Update*.) Describe the connection—if any—between this project and the habitat goals outlined in the 2017 WRIA 8 Plan ([Appendix D: Habitat Goals](http://www.govlink.org/watersheds/8/reports/pdf/1710-8207m-appendix-d.pdf)).

Bear Creek is a Tier 1 sub-basin of WRIA 8; Habitat Goals found in Appendix D calls for increased riparian cover in Tier 1 streams by 2025 (page D-2). This project will contribute toward realizing that goal. The project supports two priority WRIA 8 Plan recovery strategies, to: 1) Protect and restore functional riparian vegetation, and 2) Protect and restore channel complexity.

The WRIA 8 Plan’s habitat project list specifically lists this project as the “Middle Bear Creek Natural Area Restoration (NE 141st to Struve Creek)” (BCLC-R9-2-INS) (Appendix F, page F-44) and as "Bear Creek Seawest Granston Restoration" project (BCLC-R9-3-BB) in the WRIA 8 Four Year Work Plan on page 4.

**3.** Where not covered elsewhere in the application, describe how the proposed project supports natural ecosystem processes. Describe whether this project will have a meaningful connection to previously restored or protected areas and what amount of future maintenance is thought to be needed.

This project is focused on kick starting riparian processes and beaver activity for salmon habitat improvement. Beavers are already active in this reach of Bear Creek, despite a lack of woody vegetation, and this project will enhance those activities. Please see question 1 for the details in this process-based restoration project using beaver as a keystone species, with adaptive management elements. Future maintenance will likely be required as we will assess beaver activities in the reach and the status of plantings and vegetative cover. We are working closely with the county’s beaver expert who is helping to create a beaver management plan for this project. We will monitor the site and assess the potential benefits of adding in channel wood and/or beaver dam analogues (BDAs), beyond what beavers have recruited to the stream channel in several (2-3) years. Depending on outcomes of this implementation phase, further actions such as placing in channel wood, BDAs and replanting, may be necessary to adaptively manage the site and this reach.

**4.** Does this proposal complete habitat protection or restoration activities in a particular reach or shoreline segment? If so, briefly explain.

This reach is remarkable for the length of accessible channel (about 3,000 lineal feet), the absence of adjacent homes or infrastructure to be protected, and the great potential for habitat improvement. Limited plantings by King County Parks Division and Mountains-to-Sound Greenway have previously occurred on site. Approximately 18 acres of riparian habitat will be restored under this implementation phase and the effects of this work should be compounded by the presence of beaver on the site. The Middle Bear Natural Area and adjacent Conservation Easement will continue to offer protections to these properties for future habitat improvement. This reach will be monitored for effective outcomes and in-channel wood and/or BDAs may be added after those impacts are assessed; likely any future restoration activities will take place after two years have passed.

In terms of larger scale restoration and protection, the Basin Steward’s fundamental vision for Bear Creek subbasin is to connect natural areas along this conservation corridor. This will go far to protect and restore habitat, streamflow, and will contribute to salmon recovery efforts. Future acquisitions along Bear Creek are part of the long-term plan to acquire more open space to connect the Middle Bear Natural Area(s) which currently exists as three separate areas on the landscape, within this subbasin of WRIA 8. Purchase of lands in fee and conservation easement will present opportunities to restore and retrofit for stormwater impacts under the integrative approach to realize goals of King County’s Clean Water Healthy Habitat Initiative.

 *Certainty of Success*

1. The following questions address project readiness:
	1. When will the proposed work be implemented or, if a multi-year project, when will implementation begin (month and year)?

Project implementation will begin during the 2022-2023 planting season. Benefits to beaver will likely be almost immediate as they will have greatly enhanced resources for food and dam building. A high level of herbivory by beavers is assumed (and a benefit of the project), so supplementary plantings, protection of selected plantings, and a relatively high demand for monitoring and maintenance is assumed for the following years.

* 1. What is the status of landowner willingness?

Most of the project site is located within a King County-owned Natural Area and a conservation easement on an adjacent parcel (with a very supportive landowner).

[x]  Landowner willing to engage in project *(****must attach documentation to application****)*
[ ]  Priority parcels identified and landowner is generally supportive
[ ]  Priority parcels unknown and/or no landowner contact

1. Describe whether climate change has the potential to affect future conditions at the site and how the proposed action will be resilient under changing future conditions.

This project will provide resilience in the Bear Creek system under expected fluvial geomorphic and hydroclimatic changes. This stream reach is included on the 303 (d) list for temperature and is at risk of experiencing increased water temperatures in the future. Increased riparian shading that results from the project will help to maintain cold water temperatures. Increased groundwater interchange resulting from beaver activity is also expected to help maintain healthy water temperatures. In addition, a multi-channel form will allow the reach to absorb higher flows with reduced erosive effects, absorbing and compensating for any future flow of increased volume and velocity.

1. For restoration projects, describe any project evaluation or monitoring that will occur and is intended to evaluate the success of the proposed activity (see the [WRIA 8 Monitoring and Assessment Plan](http://www.govlink.org/watersheds/8/reports/pdf/1710-8207m-appendix-a.pdf)).

Riparian plantings will be monitored intensively for the first seasons and replaced as needed. Beaver herbivory is expected—and desired—and project budgets include funds for replacement of these plantings. The planting strategy will also include protection of some areas from beaver, as well as use of plant species thought to be less attractive to beaver. Project monitoring will attempt to add to this knowledge of beaver preferences.

Raising water elevations both within the channel of Bear Creek and in the adjacent riparian areas is a primary objective of the project. Thermometers, water stage gauges and shallow groundwater well arrays have already been installed within the project area to collect baseline water elevation data. We will continue to collect this data as the project site changes to measure success and the effects of our actions.

*Equity, Inclusion and Environmental Justice*

1. How will **this project** advance objectives of equity and environmental justice (see Box 1 for definitions)? Examples of how projects can advance equity and environmental justice include, but are not limited to[[1]](#footnote-2):
	* Provides or increases public access to parks, open space, and/or natural resources *(for example, is project located in a* [*King County Land Conservation Initiative opportunity area*](https://kingcounty.gov/services/environment/water-and-land/land-conservation/equity/Map.aspx)*?)*

An excerpt from King County Parks’ Open Space Plan shows how, as overseers of much of the project site, equity and environmental justice efforts are programmatic:

Everyone deserves and benefits from ready access to a parks, trails, and green space. As such, Parks is

working with other King County agencies and many partners to further define and accelerate progress

towards addressing disparities in park distribution and access. The global pandemic further increased

demand for safe outdoor spaces, particularly in urban areas. Record high temperatures, shown to

impact frontline and vulnerable communities more significantly, further emphasized the need for

green, shady spaces to escape the heat and cool urban areas.

King County is advancing pro-equity policies, decision-making, planning, operations, services, and practices through actions and outcomes affirmed in the King County Equity and Social Justice (ESJ) Strategic Plan (2016). In 2021, Parks established its first Equity and Social Justice Action Plan, operationalizing the values and strategies of the county’s ESJ Strategic Plan at the division level.

Those values and strategies are reflected in the policies throughout the Plan and can be summarized into the following themes:

* Improving access to parks and trails by removing barriers
* Addressing structural inequities in distribution, access, and opportunity
* Expanding access to decision-making and information
* Improving pathways to green jobs
	+ Supports a healthy built and natural environment *(for example, does project increase community vegetation and tree cover, especially in an area with low vegetation cover and/or an area identified on the* [*Washington State Environmental Health Disparities Map*](https://fortress.wa.gov/doh/wtnibl/WTNIBL/) *as having high environmental health disparities?)*

This project adds to increased canopy and riparian cover to reduce urban heat island effects, in this sparsely treed area in this residential community.

* + Contributes to community and economic development *(for example, does project hire women and minority-owned businesses or measurably contribute to increased economic benefit* *for priority populations, including low income, people of color, and those with limited English proficiency?)*

Within King County, programs have enabled the development of long-term relationships over decades. For example, in Bear Creek watershed, there is a very strong history of community-driven conservation actions that have contributed significantly to salmon recovery. For example, *Water Tenders* is a community-led group with a history of initiating and supporting land acquisitions and restoration, and with a rich *salmon watchers* history, this community has also shown interest in beaver and ecological health. This project is an opportunity to bolster that support and through beaver benefits, provide an opportunity for connection to place, and bolster the current involvement of youth for removal of invasive plants. Creekside visits are common. This project supports those intergenerational informal learning opportunities within and among families in the community. More broadly, this Natural Area will be enhanced to provide open public access that brings the opportunity to enjoy a healthful, naturalized environment.

* + Incorporates specific and relevant cultural practices and/or connections

*(for example, does project support or provide opportunities for tribal or immigrant community cultural events or practices; are project information materials translated into relevant alternate (non-English) languages; are minority media outlets used to share project information and opportunities; does project include design aspects or interpretive information featuring tribal/indigenous significance, such as relevant history of the project site or culturally-significant native plants and animals?)*

Replanting native vegetation and enabling the enhancement of the relationship between beaver and their habitat brings this site into more natural conditions creating the potential for cultural connectivity for Indigenous populations. The conditions created over time in this watershed created cultural discontinuity for tribes in this area and this project is a small but contributing step toward bringing some of that relationship with the land and water back into play.

1. How are you engaging in project-level partnerships and collaboration with watershed communities in project development, design, and implementation? When applicable, include in your response:
	* The specific community or communities engaged in the project.
	* Level(s) of community engagement using the community engagement spectrum (see Box 2 on page 4).
		+ If the project is being implemented on private property:
			- How are the property owner’s perspectives and needs being considered/integrated into the project?
			- Please describe if/how surrounding property owners and/or the community have been informed and engaged?
	* Project-level efforts to consider, hear, and attend to community voices, perspectives, and interests through the project’s life cycle (e.g., project siting, conceptual development, design, sourcing, construction, budgeting), particularly any engagement occurring during early stages of project development.
	* As applicable, please submit letters of support with your application to illustrate engagement efforts.

The project site is not lacking green space; however, it is ecologically degraded and will be improved with this project. Further, the relationship that residents of the area have with the area and their connection to place have been and will continue to be enhanced through involvement during planning and implementation phases.

Community support for the project has come about through the open and ongoing two-way communications between the project team and community and area residents, and to a limited extent with city of Redmond staff. Residents, including surrounding and downstream property owners have been engaged early and often, effectively informed and consulted on details of activities, with the project team integrating any voiced or anticipated concerns within design considerations. For example, a landowner with a private road and bridge immediately downstream of the project site has been engaged by the project team to understand and address any concerns. Other adjacent landowners send in photos of the creek to show changes in flow, and report on beaver activity, which they are happy to witness. City of Redmond and county staff regularly engage in conversations about planned and ongoing projects in this shared watershed. Residents remain supportive of the project, and ongoing dialogue and rapport building has likely added to this positive response and willingness to continue engaging with the project team.

*Box 1: Diversity, Equity, Inclusion (DEI)* *and Environmental Justice Definitions*

***Diversity****: Demographic representation and appreciation of individual, social, economic, and cultural differences that may include race, ethnicity, gender expression, sexual orientation, national origin, socio-economic status, age, educational background, abilities, and religious beliefs.*

***Equity****: A state, quality, or ideal of being fair and just.* *The principle of equity acknowledges groups that have systematically and historically been excluded or marginalized and fairness regarding these conditions is needed to balance opportunities for all groups.*

***Inclusion****: A state, quality, or ideal of being a part of a group or structure where the inherent worth and dignity of all people are recognized and respected. More than diversity and numerical representation, inclusion involves authentic and empowered participation and a sense of belonging and of feeling valued.*

***Environmental Justice****: The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This includes using an intersectional lens to address disproportionate environmental and health impacts by prioritizing highly impacted populations, equitably distributing resources and benefits, and eliminating harm.*

Box 2. Community Engagement Continuum

|  |  |
| --- | --- |
|  | **Levels of Engagement →** |
|  | **INFORM** | **CONSULT** | **INVOLVE** | **COLLABORATE** | **COMMUNITY DIRECTS** |
| Community Participation Goal | To provide the community with balanced, factual and culturally appropriate information to assist them in understanding the problems,alternatives and/or solutions. | To obtain community feedback on analysis, alternatives and/or decision. | To work directly with communities throughout the process to ensure that community issues and concerns are consistently understood and considered. | To partner with communities in each aspect of the decision, including the initial development of alternatives and the preferred solution. | To place final decision- making in the hands of the public or community. |
| Message to the Community | We will keep you informed. | We will keep you informed, listen to and acknowledge concerns and provide feedback on how community input influenced the decision. | We will work with you to ensure that your concerns and issues are directly reflected in the alternatives developed and provide feedback on how community input influenced thedecision. | We will look to you for direct advice and innovation in formulating solutions. We will incorporate your advice and recommendations into the decisions to the maximumextent possible. | We will implement what you decide. |
| Characteristics of Engagement | * Primarily one-way channel of communication
* Term-limited to project
* Addresses immediate need of project and community
 | * Primarily one-way channel of communication
* One to multiple interactions
* Shapes and informs project
 | * Two-way channel of communication
* Multiple interactions
* Advancement of solutions to complex problems
 |
| Strategies  | Media releases, brochures, pamphlets, outreach to vulnerable populations, ethnic media contacts, translated information, staff outreach to residents, new and social media | Focus groups, interviews, community surveys | Forums, advisory boards, stakeholder involvement, coalitions, policy development and advocacy, including legislative briefings and testimony, workshops, community-wide events | Co-led community meetings, advisory boards, coalitions, and partnerships, policy development and advocacy, including legislative briefings and testimony | Community-led planning efforts, community-hosted forums, collaborative partnerships, coalitions, policy development and advocacy including legislative briefings and testimony |
| Timeframe Examples | Usually fast, often time- sensitive. For example, 1 day to 1 week. | Often episodic, usually tied to one-time projects, decisions or grants. Often 1 week to 1 month, e.g. 30 daypublic comment periods. | Variable, often several months. Moving toward on-going relationships rather than episodic, | Often several months, to on- going. | Variable, often weeks, months or on-going. |

**Sources:** © [International Association for Public Participation](http://www.iap2.org), [King County Continuum of Community Engagement](https://www.kingcounty.gov/elected/executive/equity-social-justice.aspx), and [King County Community Engagement Guide (2011)](https://www.kingcounty.gov/~/media/elected/executive/equity-social-justice/documents/CommunityEngagementGuideContinuum2011.ashx?la=en)

1. For additional information refer to King County’s report [The\_Determinants\_of\_Equity](https://kingcounty.gov/elected/executive/~/media/4FF27039534048F9BC15B2A0FFDDE881.ashx?la=en) (2015). See chapters on Parks and Natural Resource (page 83), built and natural environment (page 96) and community economic development (page 121). [↑](#footnote-ref-2)