

Lake Washington/Cedar/Sammamish Watershed (WRIA 8)

Project Subcommittee Funding Report – 2022

Salmon Recovery Funding Board/Puget Sound Acquisition and Restoration Grant Programs AND Cooperative Watershed Management Grant Program

Funding Recommendations – 2022

The WRIA 8 Project Subcommittee (Subcommittee) recommends grant awards totaling the full amount available of \$1,892,744 for Salmon Recovery Funding Board (SRFB)/Puget Sound Acquisition and Restoration (PSAR) and \$3,866,618 for Cooperative Watershed Management (CWM). The recommendations allocate funds across eligible categories as follows (for a list of all proposals see Attachment 1):

- SRFB/PSAR habitat protection and restoration projects - \$1,892,744
- CWM habitat protection and restoration projects - \$2,758,803
- CWM Riparian habitat and stewardship projects - \$114,129
- CWM Monitoring and studies - \$773,227
- CWM Outreach and education - \$220,459

Salmon Recovery Funding Board Grant Program – 2022

Funding Summary: Table 1 summarizes 2022 Salmon Recovery Funding Board (SRFB) and Puget Sound Acquisition and Restoration (PSAR) grant funding in WRIA 8. Grants for SRFB are available annually and are comprised of state and federal funds. PSAR funding is allocated on a biannual basis and is subject to approval by the state legislature – projects recommended for PSAR funding in this grant round will receive funding in July of 2023.

Table 1. Summary of 2022 SRFB Grant Funds – WRIA 8	
2022 SRFB Allocation	\$435,234
2022 PSAR Allocation	\$1,457,509
Total Allocation	\$1,892,744
2022 Funding Requested	\$2,634,423
<i>Difference between Requested and Available Funds</i>	<i>(\$741,679)</i>

Grant Eligibility and Administration: Grants for SRFB are administered by the Washington State Recreation and Conservation Office (RCO), and projects proposed for funding must meet the criteria and policies outlined in RCO's Manual 18. Eligibility is geared toward acquisition and habitat restoration

(including project design and planning activities that relate to project development), and a 15% match is required. All proposed projects must be on the WRIA 8 Four-Year Work Plan and have a clear link to one or more of WRIA 8's recovery strategies.

Project Subcommittee Process: The Subcommittee members (listed in Attachment 2) review grant proposals and develop funding recommendations for consideration by the WRIA 8 Salmon Recovery Council (Council). The Subcommittee, an RCO grant manager, WRIA 8's Puget Sound Partnership Ecosystem Recovery Coordinator, and two members of the SRFB Technical Review Panel heard from applicants in an online presentation session in March, and the Subcommittee evaluated the proposals using the WRIA 8 grant criteria. Funding is prioritized for proposals offering the greatest alignment with WRIA 8 goals and recovery strategies, articulate clear goals and objectives, and demonstrate a strong likelihood of successful implementation.

The WRIA 8 Diversity, Equity, and Inclusion (DEI) Subcommittee developed community engagement and DEI application questions and evaluation criteria that were applied to last year's SRFB grant process. The purpose is to better understand how grant applicants are incorporating DEI values into their projects and programs and strengthen DEI principles in the allocation of grant resources. The criteria were further refined by category in 2022 to better capture the type of DEI work key to each type of project. To assist in the DEI evaluation, the Project Subcommittee engaged a King County DEI subject matter expert, who reviewed applicant responses to the DEI questions and provided feedback that informed proposal ranking and funding recommendations.

King County Flood Control District Cooperative Watershed Management Grants

Funding Summary: Table 1 summarizes the 2022 Cooperative Watershed Management (CWM) grant funding in WRIA 8. The total funding available includes WRIA 8’s 2022 allocation from the King County Flood Control District plus a small amount returned from past projects that closed under budget.

2022 CWM Allocation	\$3,866,136
Returned Funds	\$482
Total Funding Available	\$3,866,618
2022 CWM Funding Requested	\$9,339,004
<i>Difference between Requested and Available Funds</i>	<i>(\$5,472,386)</i>

Grant Eligibility and Administration: Activities proposed for CWM funding must occur within King County, and the proposed scope and budget must meet the guidelines and policies outlined by King County, who administers CWM grants. Eligible activities include habitat restoration (including planning and design), acquisition, monitoring and assessment, and outreach and education. Matching funds are not required but are encouraged.

Project Subcommittee Process: The Subcommittee members (listed in Attachment 3) individually reviewed the grant proposals using the WRIA 8 grant criteria. The Subcommittee visited five habitat project locations in-person for site visits, and all other applicants delivered online presentations about their work. The Subcommittee met over several sessions to share perspectives about the merits of the proposals and to develop the funding recommendations presented in this report. Funding is prioritized for proposals offering the greatest alignment with WRIA 8 goals and recovery strategies, articulate clear goals and objectives, and demonstrate a strong likelihood of successful implementation.

This year, the WRIA 8 Diversity, Equity, and Inclusion (DEI) Subcommittee further refined community engagement and DEI application questions and evaluation criteria. The purpose is to better understand how grant applicants are incorporating DEI values into their projects and programs and strengthen DEI principles in the allocation of grant resources. To assist in the DEI evaluation, the Project Subcommittee engaged a King County DEI subject matter expert, who reviewed applicant responses to the DEI questions and provided feedback that informed proposal ranking and funding recommendations.

Salmon Recovery Council Guidance for Allocating CWM Funds: The Salmon Recovery Council (Council) annually issues guidance to inform the Subcommittee’s funding allocation discussions.

In November of 2021 the Council voted to use the same allocation formula as was used in 2020 (outlined in the table below). The Council approved a cap of 20% of the annual allocation for monitoring and assessment activities and 5% of the annual allocation for outreach and education activities. Of the amount remaining in the allocation, 85% is set aside for restoration and acquisition projects and up to

15% of the project total is the target for projects focused entirely on riparian restoration and stewardship (Table 2). All returned and carryover funds are added to the restoration and acquisition total regardless of their origin. This year, the subgroup reviewing Outreach and Education proposals felt strongly about fully funding several excellent proposals and recommended reallocating \$27,152 from Restoration and Acquisition to the Outreach and Education categories. The subgroup reviewing Monitoring and Assessment proposals recommended allocating all but \$20,811 to those proposals and recommended reallocating this remaining funding to habitat projects. These recommendations are outlined in the tables at the end of the document. The original 2022 funding targets are illustrated in Table 2 (not reflecting proposed reallocation – those totals are reflected in the tables included in Attachment 1the end of this document).

Table 2. Funding Guidance by Category for 2022 CWM Grant Funds in WRIA 8	
Habitat Restoration and Acquisition Projects	\$2,465,144
Riparian Habitat and Stewardship Projects	\$434,940
Monitoring and Assessment Activities	\$773,227
Outreach and Education Activities	\$193,307
Total	\$3,866,618

2022 CWM and SRFB/PSAR Funding Recommendation Summary – Acquisition and Restoration Projects

Once again in 2022 WRIA 8 received a record number of applications for habitat projects and demand far exceeded available funding. The Project Subcommittee recommended funding two SRFB/PSAR projects and five CWM projects, making some funding available to multiple projects rather than trying to fully fund requests in ranked order. CWM rankings are listed first and SRFB/PSAR rankings (if applicable) are listed in parentheses.

1. Lower Taylor Creek Restoration Project 2022– *Seattle Public Utilities*

CWM Grant Request: \$750,000 CWM Funding Recommended: \$750,000

The Lower Taylor Creek Restoration project, extending from just south of Rainier Ave S. to the lakeshore and delta in Lake Washington, will restore habitat for Cedar River juvenile Chinook that take refuge in the lower section of Taylor Creek as they migrate along the shoreline of south Lake Washington. Seattle Public Utilities intends to restore critical stream, floodplain, mouth, delta, riparian and shoreline areas of lower Taylor Creek as part of a larger project to restore fish passage and mitigate sediment transport processes between the upper sections of the creek and the mouth/delta at Lake Washington. WRIA 8 has provided grant funds for the acquisition and design phases of this project in past grant rounds.

2. (SRFB/PSAR Ranking – 2) Rutledge Johnson Lower Levee Removal Final Design – *King County*

CWM Grant Request: \$350,000 CWM Funding Recommended: \$250,000

SRFB/PSAR Grant Request: \$350,000 SRFB/PSAR Funding Recommended: \$0

King County Water and Land Resources Division (WLRD) will prepare final design documents for a floodplain reconnection and salmon habitat restoration project on the left bank of the Cedar River at river mile 13.1-13.5. The future restoration project will reconnect up to 16 acres of floodplain, remove up to 600 feet of the Rutledge Johnson levee and create 2.5 acres of off-channel habitat, with the goal of restoring riverine processes that benefit Chinook, coho, sockeye, and steelhead trout. The funding provided is expected to allow the sponsor to initiate final design development. The Subcommittee originally intended to award this project \$350,000 of SRFB/PSAR funds but later learned that the project would not meet due dates for preliminary design documents and is ineligible for funding. Subsequently the Subcommittee decided to award a portion of the requested CWM funding to support the final design.

3. (SRFB/PSAR Ranking – 1) Cedar River Upper Royal Arch Habitat Enhancement– *Seattle Public Utilities*

CWM Grant Request: \$1,600,000 CWM Funding Recommended: \$275,000

SRFB/PSAR Grant Request: \$1,891,743 SRFB/PSAR Funding Recommended: \$1,792,744

This project represents the construction phase of a current WRIA 8-supported and SRFB-funded design to restore natural riverine processes in the Upper Royal Arch Reach of the Cedar River. The project is being designed to benefit aquatic, riparian, and floodplain functions and habitats by restoring the connection of the active channel to its floodplain and 3200 feet of historic and new side-channels along an approximately 2000-foot section of river shoreline. Because the project was awarded the bulk of WRIA 8's SRFB/PSAR allocation, the subcommittee decided to award it less CWM funding and hopes the project sponsor can realize potential cost savings and will be able to secure additional funding from other sources.

4. Evans Creek Relocation – City of Redmond

CWM Grant Request: \$1,000,000 CWM Funding Recommended: \$825,000

The City of Redmond will construct this project to relocate Reach 2 of Evans Creek out of an industrial area and into adjacent floodplain wetland, enhancing in-stream and riparian habitat and improving the stream's water quality. The design of this project was previously funded by WRIA 8 CWM grant funds. The recommended funding will help the City of Redmond realize their funding goals for this work.

5. Issaquah Creek In-Stream Restoration at Lake Sammamish State Park Phase 2 (Reach 4) – Mountains to Sound Greenway Trust

CWM Grant Request: \$1,023,632 CWM Funding Recommended: \$0

The Mountains to Sound Greenway Trust is requesting funding to for construction of the Reach 4 segment of the larger in-stream restoration and large woody material installations along the 6,600 foot stretch of Issaquah Creek within Lake Sammamish State Park. In-stream restoration on this reach of Issaquah Creek will provide significant habitat benefits for juvenile Chinook and other salmonids including needed in-stream structural diversity, floodplain and side-channel connectivity, and more functional and complex refuge and foraging habitat. The subcommittee believes this project will result in important habitat benefits but having awarded grant funding to the sponsor in previous grant rounds to complete work in other reaches, the subcommittee would like to see the previously funded work completed to inform future phases of work in other reaches before awarding additional funds.

6. (SRFB/PSAR Ranking - 3) Sewest Granston Restoration Project – King County

CWM Grant Request: \$200,000 CWM Funding Recommended: \$0

SRFB/PSAR Grant Request: \$200,000 SRFB/PSAR Funding Recommended: \$100,000

King County is seeking to restore critical salmon habitat within the Middle Bear Creek Natural Area and extend the connected area along Bear Creek. These funds will be used for implementation of the riparian restoration phase. The subcommittee recommended allocating \$100,000 to support the initial planting phase of the project and expressed interest in seeing the results of that work and the final design work funded by an earlier grant before providing additional funding.

7. Bear Creek Tretheway Floodplain Reconnection Construction— *Mid-Sound Fisheries Enhancement Group*

CWM Grant Request: \$723,720

CWM Funding Recommended: \$679,614

Working with three private landowners, Mid Sound Fisheries will begin construction on an in-stream and riparian restoration project in Reach 6 of Bear Creek in Redmond to improve juvenile Chinook rearing habitat. This project will add large wood to the stream, remove bank armoring, add side channels, and meander the stream channel, increase connection to the floodplain, and restore riparian buffer. The subcommittee would like to see this work fully funded but due to the size of the allocation is unable to recommend full funding at this time.

8. Arrowhead Property Conservation – *Forterra NW*

CWM Grant Request: \$750,000

CWM Funding Recommended: \$0

Conservation of the 6.46-acre undeveloped forested Arrowhead parcel just north of St. Edward State Park in Kenmore will protect 245 feet of lake shore along Lake Washington and 870 feet of forested riparian stream frontage. The permanent protection of the property will preserve good quality functioning wildlife habitat, including nearshore shallow-water lake shoreline and terrestrial wildlife connectivity. Although it would be a good addition to St. Edwards State Park to preserve the forested shoreline, the subcommittee encourages the sponsor to seek other funding sources for this project and has not recommended it for funding in this grant round.

9. Middle Issaquah Creek Conservation – *King County*

CWM Grant Request: \$400,000

CWM Funding Recommended: \$0

King County is negotiating the purchase of a conservation easement on a high value habitat parcel with 2,365 linear feet of shoreline along the left bank of Issaquah Creek. An appraisal for an approximate 19-acre conservation easement for this parcel was completed in November 2021. The easement would leave the property owner with five acres for their house and barn but protects the creek and riparian buffer. The subcommittee had questions about the feasibility of implementation and the uncertainty about potential downstream bank armoring and decided not to recommend this project for funding.

10. George Davis Creek Fish Passage Barrier Removal Project – *City of Sammamish*

CWM Grant Request: \$220,000

CWM Funding Recommended: \$0

This project will remove four fish passage barriers along George Davis Creek east of Lake Sammamish, including a culvert, a concrete dam, a dock, and a high flow bypass that diverts surface water from a fish critical stream. Additionally, the project will create 250-feet of open channel and restore 500 feet of stream, opening more than 4,000 feet of high-quality spawning and rearing ecosystem to support Lake Sammamish kokanee, while benefitting other resident species. The relative Chinook benefit of this project is relatively low compared to other species. WRIA 8 has provided a letter of support to the

Fish Barrier Removal Board for a funding request for this project and is hopeful the project will receive funding through that program.

11. Cottage Lake Creek Weir Removal and Restoration– *Mid Sound Fisheries Enhancement Group*

CWM Grant Request: \$140,440

CWM Funding Recommended: \$0

The project proposes completing the design for a removal of the lowest fish passage barrier on Cottage Lake Creek. The removal of an old weir will reconnect floodplain habitat, restore natural sediment transport, and improve spawning and rearing habitat for Chinook. Because the relatively moderate benefit to Chinook this high in the Cottage Lake Creek system the subcommittee did not recommend funding for this project. They hope the project sponsors can identify other funding opportunities to support the project.

SRFB/PSAR Ranking 4 – North Creek Streamkeepers – *Adopt a Stream Foundation*

SRFB Grant Request: \$192,680

SRFB Funding Recommended: \$0

The Adopt A Stream Foundation proposes to install pile assisted logjams and/or beaver dam analogs at three locations in the headwaters of North Creek to reduce peak winter flows, increase summer flows, and improve salmon spawning and rearing habitat throughout the watershed. In addition, Adopt A Stream plans to engage several thousand North Creek watershed residents as stewards of their home watershed. The subcommittee felt the relative benefit to Chinook in the proposed project location was low, and had some questions about the feasibility of the proposed work and the connection between desired habitat restoration objectives and placement of proposed structures.

2022 CWM Funding Recommendation Summary – Riparian Habitat/Stewardship Projects

1. Issaquah Creek Basin Riparian Restoration Project, Phase 5 – Mountains to Sound Greenway Trust

Grant Request: \$69,691 Funding Recommended: \$69,691

The Mountains to Sound Greenway Trust will improve salmon habitat by continuing a multi-year initiative to treat and control knotweed (and other invasive species) and reforest the riparian buffer of Issaquah Creek and its tributaries with native trees and shrubs. This work will take place primarily on private land and, in addition to habitat improvement, will educate landowners on the importance of healthy waterways for salmon recovery. This project continues invasive knotweed control and riparian revegetation work supported by WRIA 8 through grants in previous years.

2. Sammamish River Riparian Restoration and Maintenance – Adopt A Stream Foundation

Grant Request: \$44,438 Funding Recommended: \$44,438

Since 2018, Adopt A Stream Foundation has been working to restore 1,200 linear feet of river and 5.9 acres of riparian area along the Sammamish River in Kenmore. This project will continue maintenance of previously restored areas at the site, which will include monitoring plant health, replacing dead trees, and ongoing control of invasive species.

2022 CWM Funding Recommendation Summary – Monitoring and Assessment

The WRIA 8 Technical Committee (Committee) heard presentations from all applicants in the monitoring and assessment category. In addition to proposals for long-running monitoring programs, we received several proposals seeking to answer questions affecting salmon survival or focused on furthering technologies that could aid recovery efforts. The Subcommittee considered the ranking criteria as well as proposal sequencing and overall management implications into account when preparing funding recommendations. The category was highly competitive, and the Subcommittee was unable to allocate funds to all the good work proposed. The total recommended funding leaves a balance of \$20,811, which was transferred to the habitat restoration and acquisition category.

Proposals Recommended for Funding

Adult Chinook (Fish In) Monitoring – *King County*

Grant Request: \$26,434 Funding Recommended: \$26,434

The monitoring project involves the collection of escapement data for spawning adult Chinook in the Cedar River. The project is part an ongoing, annual, inter-agency effort to support long-term monitoring of the effectiveness of the WRIA 8 Chinook Salmon Conservation Plan.

Assessment of Artificial Light at Night and Consequent Predation Risk for Juvenile Salmon-2nd year – *U.S. Geological Survey*

Grant Request: \$104,446 Funding Recommended: \$104,446

Salmon predators hunt visually and increased light at night has expanded the spatial-temporal predation threat to rearing and migrating juvenile Chinook & sockeye. Sponsors propose to measure patterns and variability in nocturnal light during ecologically-relevant periods for juveniles in Lake Washington and the Ship Canal, then convert measured light and water transparency into estimates of predation risk as functions of time, date, location, and depth; identify hotspots of direct lighting or skyglow, predict changes in predation risk in response to incremental change in light intensity, and recommend remedies for various light restoration priorities.

Tracking juvenile Chinook survival to the Ballard Locks: updating PIT tag detectors in the fish ladder and filling culvert – *Washington Department of Fish and Wildlife*

Grant Request: \$67,160 Funding Recommended: \$67,160

This project will upgrade all four PIT tag detection readers in the adult fish ladder at the Ballard Locks. Additionally, 1 antenna and reader in the large Locks filling culvert needs replacement. These detection sites are critical for re-sighting PIT tags needed to accurately estimate marine survival and juvenile freshwater survival in Lake Washington and the Shipping Canal from Cedar River and Bear Creek juvenile monitoring sites.

Lake Washington Ship Canal Roundtable Data Gaps – *Long Live the Kings*

Grant Request: \$114,906 Funding Recommended: \$114,906

This project will conduct preliminary feasibility analysis of one or more alternatives to improve juvenile and adult salmon health and survival in the Lake Washington Ship Canal by lowering water temperatures, increasing dissolved oxygen, and reducing abrupt transitions in those conditions. Phase 1 of the LWSC Roundtable process, including the forthcoming alternative assessment matrix, will define the alternatives addressed in this feasibility work.

Effects of aquatic invasive plant control on nearshore fish abundance and water quality in Lake Sammamish – *Trout Unlimited*

Grant Request: \$99,743 Funding Recommended: \$99,743

Lake Sammamish's entire littoral zone is plagued by non-native aquatic weeds (Brazilian Elodea and Eurasian Watermilfoil) that negatively impact water quality and provide habitat for non-native gamefish that are direct predators of juvenile chinook salmon and other salmonids. This project builds on a recently completed pilot aquatic weed removal project that showed promise in displacing gamefish by adding additional DASH treated site, includes alternative treatment methods (herbicide), will monitor water quality impacts of removal among paired study sites, and refine study design based on knowledge gained from the pilot.

Managing Predation of Juvenile Chinook Salmon and Sockeye Salmon by Nonnative Fishes in WRIA 8 – *U.S. Fish and Wildlife Service*

Grant Request: \$59,925 Funding Recommended: \$59,925

This project is an effort by the USFWS to continue to collect and process diet samples in partnership with WDFW, King County, and the Muckleshoot Indian Tribe to expand predator evaluation and management in the Lake Washington system. Sponsors will obtain information on the number of juvenile Chinook and other salmonids in predatory fish diets, and the spatial distribution of predation risk to inform management actions targeting this key limiting factor to salmon recovery in the WRIA 8 watershed.

Lake Washington Predation Monitoring and Mitigation Project – *Washington Department of Fish and Wildlife*

Grant Request: \$133,000 Funding Recommended: \$133,000

Gill net surveys would be conducted in the south end of Lake Washington, the Lake Washington Ship Canal, and near-shore areas of North Lake Washington to assess areas of acute predation and remove non-native predator fishes during the time that lake-rearing Chinook fry from the Cedar River are entering Lake Washington and throughout the juvenile Chinook out-migration period. This project will increase survival rates for Lake-rearing Chinook salmon fry and juvenile Chinook salmon migrants in the Lake Washington basin by identifying areas of acute predation and removing piscivores from juvenile Chinook rearing areas and out-migration corridors

Lake Washington Merwin Trap – *Washington Department of Fish and Wildlife*

Grant Request: \$37,000 Funding Recommended: \$37,000

A Merwin Trap is a special type of trap that has been employed in lake environments in other regions of the west to capture non-native fish. Last year WRIA 8 supported CWM funding to trial two Merwin traps in Lake Sammamish. This proposal would support deployment of two Merwin Traps in Spring 2023 on an experimental basis in the south half of Lake Washington. The purpose of the project will be to expand testing of use of this gear type and its effectiveness at reducing predator abundances during times when Lake-rearing fry and Chinook migrants are present.

Parasite patterns in the Lake Washington Basin and potential for disease impacts on adult Chinook salmon survival – *Trout Unlimited*

Grant Request: \$109,802 Funding Recommended: \$109,802

Disease is hypothesized to be an important factor in lower survival of adult Chinook salmon during the freshwater phase in the Lake Washington Basin, and several myxozoan parasites known to cause significant disease and mortality are present in the basin. Sponsors propose to expand the analysis of disease risk by extending a successful environmental DNA (eDNA) surveillance method for myxozoan parasites to the entire WRIA 8 watershed and by assessing the prevalence and severity of these parasites in adult Chinook salmon returning to Issaquah Creek.

Proposals Not Recommended for Funding

Integrated District Cooling and Salmon Habitat Restoration in the Lake Washington Ship Canal – *CleanTech Alliance*

Grant Request: \$180,000 Funding Recommended: \$0

This pre-feasibility assessment would advance a concept, strategy, and science to support the integration of a deep lake water cooling system for the University of Washington that can simultaneously be used to improve temperature and dissolved oxygen conditions in the Lake Washington Ship Canal. The project would model the effect of a cold lake water outfall appropriately scaled for simultaneous district cooling and renewable heat recovery and potentially develop a feasibility study to advance the concept and to consider viable paths to funding, execution, education, and outreach. The subcommittee is intrigued by this project and believes a district energy strategy could help contribute to water quality solutions if this alternative is selected as a preferred option to pursue. Ultimately, the group chose not to fund it in this grant round due to sequencing concerns.

Monitoring & Assessment of Native and Non-native fish community in Lake Washington – *U.S. Geological Survey*

Grant Request: \$149,584 Funding Recommended: \$0

Increased climate warming and urbanization have influenced rapid increases by invasive species and altered distribution of native and non-native species in ways that have increased predation on and competition with juvenile Chinook and other salmon. This proposal would develop and apply a streamlined program for monitoring key native and non-native fishes in Lake Washington to provide early warning for threats from invasive species or shifts in the existing fish community that would

significantly affect juvenile salmon survival or growth. The subcommittee supports this work and sees a strong need to consistently and systematically monitor for changes in Lake Washington fish community composition and abundance over time. The subcommittee chose not to fund the project this year, because this work would establish an ongoing monitoring program, and there are concerns about using CWM grant funds for programmatic funding until there is clear cooperative investment and support.

Movement Ecology of Northern Pikeminnow and Cutthroat Trout in Lake Washington: Native Predators on Juvenile Salmon – U.S. Geological Survey

Grant Request: \$123,799

Funding Recommended: \$0

AND

Movement Ecology of Northern Pikeminnow in Lake Washington: Native Predators on Juvenile Salmon – University of Washington

Grant Request: \$34,474

Funding Recommended: \$0

Northern Pikeminnow are important predators of juvenile salmon in WRIA 8 and impose significant mortality during the month(s) of lake rearing and migration. Sponsors propose to conduct an acoustic telemetry study on Northern pikeminnow to identify timing and locations of spawning aggregations as well as diel and seasonal movement and distribution patterns to inform the feasibility and scope of predator control options and improve our mechanistic understanding for how climate, artificial light at night (ALAN), invasive species, and urbanization interactively exacerbate mortality of juvenile salmon in WRIA 8. The subcommittee decided due to the lack of clear management implications not to recommend these projects for funding.

Photo-Identification of Harbor Seals at the Ballard Locks: Investigating Site Use to Inform Appropriate Management Actions – Oceans Initiative

Grant Request: \$83,396

Funding Recommended: \$0

The ability to recognize individual seals and track their foraging behavior over time is an important next step to finding a solution to the pinniped predation problem in this watershed, and in determining appropriate management actions (e.g., translocation of nuisance individuals). This project seeks to identify individual seals through photo ID techniques. The subcommittee felt that the proposal's objectives were not clearly aligned with the proposed methods and the methods lacked certainty of success and chose not to recommend this project for funding.

2022 CWM Funding Recommendation Summary – Outreach and Education

Demand in this category continues to exceed available funding, with a record number of applications received in 2022. In addition to applications from some annual outreach programs, we also received several first-time applications. The Subcommittee was pleased to see an increasing interest in outreach and education related to salmon recovery in our watershed but ultimately recommends funding only the programs most clearly and directly aligned with the WRIA 8 Communications and Outreach Framework, community engagement and equity and environmental justice considerations, and recovery strategies.

The total funding recommended includes the recommendation to exceed the funding guidance for this category by \$27,152, which reduces the Acquisition and Restoration Project allocation by this amount.

Programs Recommended for Funding

Cedar River Salmon Journey – *Seattle Aquarium*

Grant Request: \$38,500 Funding Recommended: \$38,500

This long-standing program is an education and outreach program designed to raise awareness in the WRIA 8 community about local salmon, the challenges that face them and the opportunities for all of us to engage with and support salmon recovery. CRSJ provides multiple opportunities for people who live, work, and play in WRIA 8 to learn about salmon – through in-person programs along the Cedar River or at the Ballard Locks, at community events in the watershed or through social media and online resources – and to inspire them to take action.

Salmon Heroes: Improving Stewardship Behaviors through Science-Based Studies – *Environmental Science Center*

Grant Request: \$15,000 Funding Recommended: \$15,000

The Salmon Heroes program is a multi-part, experiential education program focused on salmon in the Lake Washington/Cedar River/Sammamish watershed for WRIA 8 students, their caregivers, and teachers. Salmon Heroes increases student understanding of stormwater pollution, invites them to think critically and brainstorm possible solutions, and leads them on stewardship action projects to improve water quality on their school campuses.

FISH Education and Outreach Programs – *Friends of the Issaquah Salmon Hatchery*

Grant Request: \$35,000 Funding Recommended: \$35,000

FISH’s mission is “protecting our salmon and ensuring their survival for future generations through education, advocacy, and outreach.” With this project, FISH aims to continue and expand the outreach and programs that support their mission, by providing those who live, work, and play in the watershed with the tools, guidance, and knowledge necessary to act as salmon stewards, hosting outreach and education programs, and making the hatchery more accessible to those from diverse and marginalized backgrounds.

Beach Naturalists – *Seattle Aquarium*

Grant Request: \$13,200 Funding Recommended: \$13,200

The Beach Naturalist program is a public education and outreach program designed to engage the public in learning how to protect and conserve the nearshore environment. Trained naturalists motivate behavioral change by raising public understanding of the value of the intertidal ecosystem, the nearshore, and Puget Sound—and they connect these habitats to the needs of salmon.

Lake Sammamish STREAM Connections Program – *Trout Unlimited*

Grant Request: \$28,500 Funding Recommended: \$28,500

The Lake Sammamish STREAM Connections Program (STREAM Connections) is part of the Lake Sammamish Urban Wildlife Refuge Partnership. STREAM Connections is designed to get students and families outside to explore local streams and learn about watershed ecology, which will connect diverse local communities in the Seattle Metro area to nature and inspire people to care for the Lake Sammamish watershed.

Orcas Inspiring Riparian Restoration – *Whale Scout*

Grant Request: \$22,539 Funding Recommended: \$22,539

This one-year project proposes to host 36 volunteer events that combine educational activities focused on connections between Southern Resident killer whales with hands-on riparian habitat restoration at two sites: the former Wayne Golf Course on the Sammamish River/Waynita Creek and a private site on Bear Creek. It will also support three student interns in Whale Scout’s summer “Diverse Voices” internship program.

Environmental Education, 2022-2023 in North Creek Forest – *Friends of North Creek Forest*

Grant Request: \$36,000 Funding Recommended: \$36,000

Friends of North Creek Forest’s education program offers field trips in stream health and other ecological subjects, as well as environmental summer camps, Salmon SEEson guided tours, and education booths. The bulk of participants learn how to do hands-on measurements, engage in restoration work, and are given the opportunity to design and carry out their own projects.

Community Action Training School – *Mid-Sound Fisheries Enhancement Group*

Grant Request: \$63,439 Funding Recommended: \$31,720

Community Action Training School (CATS) will recruit, educate, and engage 20-30 watershed residents in becoming more active stewards of their watershed and its salmon. Class participants will attend a series of evening classes and weekend field trips over 10 weeks and will return at least 50 hours of service towards a watershed stewardship community project. This funding will support one year of the CATS program rather than the two years requested.

Projects Not Recommended for Funding

United for Salmon at South Lake Union – *Seattle 2030 District*

Grant Request: \$25,000 Funding Recommended: \$0

In partnership with United Tribes of All Indians, Seattle 2030 District proposed to develop an education curriculum to interpret water quality benefits for salmon and a tour program at the new canoe Carving House at South Lake Union. The committee was impressed with this partnership but ultimately chose not to recommend funding for this project because of its less direct connection to salmon recovery.

A Sense of Place – Enhancing Public Understanding – *University of Washington Bothell*

Grant Request: \$65,427 Funding Recommended: \$0

This project is a collaborative effort to increase public understanding and appreciation of the watershed's cultural and biological history. The requested funding would support completion of Native art installation and narrative displays at three locations at the north end of Lake Washington, and development of a Salmon Trail along O. O. Denny Creek. The committee appreciated the interest in telling the story of salmon recovery in the watershed but chose to invest limited outreach dollars in more active educational and communication opportunities.

Climate Justice Ambassadors – Sustainability Ambassadors

Grant Request: \$49,667

Funding Recommended: \$0

The Climate Justice Ambassadors - My Watershed Address program would partner with stakeholders to activate a multi-year impact strategy for education, outreach and action in both classroom and community settings. The initiative seeks to align salmon recovery goals with city and county climate action plans, and environmental justice outcomes by expanding a Youth Leadership Development Program and a problem-based, place-based Curriculum Design Lab for secondary educators. This program's broad climate goals are not as directly connected to salmon recovery as some other programs and it was unclear what parts of its suite of ambitious objectives would be supported by WRIA 8 grant funding, and so it was not recommended for funding.

Catalyst for Conservation: Engaging Urban Communities – University of Washington Bothell

Grant Request: \$174,987

Funding Recommended: \$0

This project integrates and expands two existing citizen science conservation networks to educate, motivate, and inspire diverse community members and government officials to further salmon and riparian habitat conservation in WRIA 8, with special focus on urbanized areas that are lower income and more diverse. The program exhibited a limited connection to salmon recovery and WRIA 8 recovery strategies and is not recommended for funding.

Attachment 1: WRIA 8 Project Subcommittee Funding Recommendations for 2022 CWM Grant Funds

<i>Table 3: Habitat Restoration and Acquisition Funding Recommendations</i>					
<i>Project Name and Sponsor</i>	<i>Project Phase</i>	<i>CWM Funding Request</i>	<i>CWM Funding Recommended</i>	<i>SRFB Funding Request</i>	<i>SRFB Funding Recommended</i>
<i>Lower Taylor Creek - Seattle Public Utilities</i>	Construction	\$750,000	\$750,000	N/A	N/A
<i>Rutledge-Johnson Lower Levee Removal Final Design - King County</i>	Design	\$350,000	\$250,000	\$350,000	\$0
<i>Cedar River Upper Royal Arch - Seattle Public Utilities</i>	Construction	\$1,600,000	\$275,000	\$1,891,743	\$1,792,744
<i>Evans Creek Relocation - City of Redmond</i>	Construction	\$1,000,000	\$825,000	N/A	N/A
<i>Issaquah Creek In-Stream Restoration - Mountains to Sound Greenway</i>	Construction	\$1,023,632	\$0	N/A	N/A
<i>Seawest Granston (Middle Bear) Natural Area - King County</i>	Construction	\$200,000	\$0	\$200,000	\$100,000
<i>Bear Creek Tretheway Habitat Restoration - Mid-Sound Fisheries Enhancement Group</i>	Construction	\$723,720	\$679,614	N/A	N/A
<i>Arrowhead Property Conservation - Forterra</i>	Acquisition	\$750,000	\$0	N/A	N/A
<i>Issaquah Creek Restoration Acquisition - King County</i>	Acquisition	\$400,000	\$0	N/A	N/A
<i>George Davis Creek Fish Passage - City of Sammamish</i>	Construction	\$220,000	\$0	N/A	N/A
<i>Cottage Lake Creek Weir Removal - Mid-Sound Fisheries Enhancement Group</i>	Design	\$140,440	\$0	N/A	N/A
<i>North Creek Streamkeepers – Adopt A Stream Foundation</i>	Construction	N/A	N/A	\$192,680	\$0
Totals		\$7,157,792	\$2,779,614	\$2,634,423	\$1,892,744

Attachment 1: WRIA 8 Project Subcommittee Funding Recommendations for 2022 CWM Grant Funds

<i>Table 4: Riparian Habitat and Stewardship Funding Recommendations</i>		
<i>Project Name and Sponsor</i>	<i>Funding Request</i>	<i>Funding Recommended</i>
Issaquah Creek Riparian Restoration - <i>Mountains to Sound Greenway</i>	\$69,691	\$69,691
Sammamish River Restoration - <i>Adopt A Stream Foundation</i>	\$44,438	\$44,438
Totals	\$114,129	\$114,129

<i>Table 5: Monitoring and Assessment Funding Recommendations</i>		
<i>Project Name and Sponsor</i>	<i>Funding Request</i>	<i>Funding Recommended</i>
Adult Chinook Fish In Monitoring - <i>King County</i>	\$26,434	\$26,434
Assessment of Artificial Light at Night and Consequent Predation Risk for Juvenile Salmon- 2nd year – <i>U.S. Geological Survey</i>	\$104,446	\$104,446
Tracking juvenile Chinook survival to the Ballard Locks: updating PIT tag detectors in the fish ladder and filling culvert– <i>Washington Department of Fish and Wildlife</i>	\$67,160	\$67,160
Lake Washington Ship Canal Roundtable Data Gaps – <i>Long Live the Kings</i>	\$114,906	\$114,906
Effects of aquatic invasive plant control on nearshore fish abundance and water quality in Lake Sammamish - <i>Trout Unlimited</i>	\$99,743	\$99,743
Managing Predation of Juvenile Chinook Salmon and Sockeye Salmon by Nonnative Fishes in WRIA 8 – <i>U.S. Fish and Wildlife Service</i>	\$59,925	\$59,925
Lake Washington Predation Monitoring and Mitigation Project - <i>Washington Department of Fish and Wildlife</i>	\$133,000	\$133,000

Attachment 1: WRIA 8 Project Subcommittee Funding Recommendations for 2022 CWM Grant Funds

Lake Washington Merwin Trap - <i>Washington Department of Fish and Wildlife</i>	\$37,000	\$37,000
Parasite patterns in the Lake Washington Basin and potential for disease impacts on adult Chinook salmon survival – <i>Trout Unlimited</i>	\$109,802	\$109,802
Integrated District Cooling and Salmon Habitat Restoration in the Lake Washington Ship Canal - <i>CleanTech Alliance</i>	\$180,000	\$0
Monitoring and Assessment of Native and Non-Native Fish Communities in Lake Washington - <i>U.S. Geological Survey</i>	\$149,584	\$0
Movement Ecology of Northern Pike minnow and Cutthroat in Lake Washington - <i>U.S. Geological Survey</i>	\$123,799	\$0
Movement Ecology of Northern Pike minnow and Cutthroat in Lake Washington - <i>University of Washington</i>	\$34,474	\$0
Photo-Identification of Harbor Seals at the Ballard Locks: Investigating Site Use to Inform Appropriate Management Actions – <i>Oceans Initiative</i>	\$83,396	\$0
Totals	\$1,323,669	\$752,416

Table 6: Outreach and Education Funding Recommendations		
<i>Project Name and Sponsor</i>	<i>Funding Request</i>	<i>Funding Recommended</i>
Cedar River Salmon Journey - <i>Seattle Aquarium</i>	\$38,500	\$38,500
Salmon Heroes - <i>Environmental Science Center</i>	\$15,000	\$15,000
FISH Education and Outreach Programs - <i>Friends of Issaquah Salmon Hatchery</i>	\$35,000	\$35,000
Beach Naturalists - <i>Seattle Aquarium</i>	\$13,200	\$13,200

Attachment 1: WRIA 8 Project Subcommittee Funding Recommendations for 2022 CWM Grant Funds

Lake Sammamish STREAM - <i>Trout Unlimited</i>	\$28,500	\$28,500
Orcas Inspiring Riparian Restoration - <i>Whale Scout</i>	\$22,539	\$22,539
Environmental Education, 2022 - 2023 - <i>Friends of North Creek Forest</i>	\$36,000	\$36,000
Community Action Training School - <i>Mid Sound Fisheries Enhancement Group</i>	\$63,439	\$31,720
United for Salmon at South Lake Union - <i>Seattle 2030 District</i>	\$25,000	\$0
A Sense of Place - Enhancing Public Understanding - <i>UW Bothell</i>	\$65,427	\$0
Climate Justice Ambassadors - <i>Sustainability Ambassadors</i>	\$49,667	\$0
Catalyst for Conservation: Engaging Urban Communities - <i>UW Bothell</i>	\$174,987	\$0
Totals	\$567,259	\$220,459

Attachment 2

2022 SRFB Grant Round

WRIA 8 Project Subcommittee Members

1. Tor Bell – Mountains to Sound Greenway Trust*
2. Jim Bower – King County
3. Diane Buckshnis – City of Edmonds*
4. Christa Heller – City of Bellevue
5. Peter Holte – City of Redmond
6. Brent Lackey – Seattle Public Utilities
7. Julian Douglas – Washington Department of Fish and Wildlife
8. Vanessa Kritzer – City of Redmond*
9. Rob Plotnikoff – Snohomish County
10. Lauren Urgenson – WRIA 8 Technical Coordinator
11. Carrie Byron – WRIA 8 Projects and Funding Coordinator and Subcommittee Chair

*Denotes WRIA 8 Salmon Recovery Council member

Attachment 3

2022 Cooperative Watershed Management Grant Round

WRIA 8 Project Subcommittee Participants

1. Sarah Heerhartz – Mid Sound Fisheries Enhancement Group
2. Jim Bower – King County
3. Diane Buckshnis – City of Edmonds*
4. Karl Burton – Seattle Public Utilities
5. Christa Heller – City of Bellevue
6. Peter Holte – City of Redmond
7. Josh Kubo – King County
8. Jason Mulvihill-Kuntz – WRIA 8 Salmon Recovery Manager
9. Vanessa Kritzer – City of Redmond*
10. Julian Douglas - Washington Department of Fish and Wildlife
11. Lauren Urgenson – WRIA 8 Technical Coordinator
12. Carol Volk – Seattle Public Utilities
13. Carrie Byron – WRIA 8 Projects and Funding Coordinator and Subcommittee Chair

*Denotes WRIA 8 Salmon Recovery Council member