

Lower Columbia Estuary Partnership Workplan
July 1, 2023 – June 30, 2025



LCEP Project Years July 1, 2023, to June 30, 2025
Current Grant #CE-01J56601

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Comprehensive Conservation and Management Plan:

The Estuary Partnership Comprehensive Conservation and Management Plan (CCMP) was developed from 1996 to 1999 using extensive scientific research, analysis, and historical data. The 1999 CCMP identified 43 actions, including environmental goals and objectives, to address seven priority issues:

- Biological integrity
- Habitat loss and modification
- Impacts from human activity
- Conventional pollutants
- Toxic contaminants
- Institutional constraints
- Public awareness and stewardship

The Estuary Partnership updated specific actions, specifically Chapter 5 of the 1999 CCMP, in 2001, to set a new target for habitat restoration. In 2011, the CCMP was again updated to incorporate knowledge gained during sixteen years of experience implementing the CCMP; add climate change adaptations; set new targets; and streamline actions. The result of the 2011 update was a set of 17 actions that give concise directions for the region and provide specific targets. The CCMP is a long-range regional plan that not only provides direction, goals, and actions for the Estuary Partnership, but for partners, agencies, and communities throughout the lower Columbia. As a long-range plan, many actions need to be sustained for years to ensure the long-term health of the ecosystem. In implementing the CCMP the Estuary Partnership builds on current efforts, provides a regional framework, develops new tools, and fills gaps in science. The approach is intended to restore habitat while advancing science and improving river conditions as we learn.

CCMP Goals:

- Increase habitat and habitat function for multiple species; restore 25,000 acres of habitat by 2025.
- Conserve land to protect water quality and habitat; reduce impacts from land use practices; reduce armored shoreline by 10% by 2025; maintain impervious surface at no more than 15%.
- Reduce or remove contaminants and clean up contaminated sites to improve water quality.
- Provide education and engagement activities and provide data and information for a range of audiences; reach 5,000 students each year and host at least ten volunteer events each year.
- Convene and coordinate partners to enhance regional strategies and partnerships and heighten protection of the lower Columbia River.

Like protecting the lower Columbia River and estuary, the actions do not have end dates. The Board of the Estuary Partnership periodically assesses Estuary Partnership activities, successes and challenges and adopts a six-year implementation plan to guide day-to-day activity and define financial strategies.

CCMP Update 2023-2024:

The Estuary Partnership began a CCMP update process in early 2023. In 2022, the Estuary Partnership completed a strategic planning process that identified four issues that should be areas of focus for the CCMP update. These focus areas were identified because there may be new environmental data that could have a significant impact on some Estuary Partnership activities. Those issues areas include:

- Climate Change
- Environmental Justice
- Recreation and Access
- Community and Environmental Education

In February 2023, the Board and staff met for a retreat to reflect on and react to past and current actions, consider new information and definitions, and share potential update objectives. The CCMP update will defer action planning related to Environmental Justice to the Estuary Partnership's Equity Plan. Each of the other focus areas will be reviewed consistent with the EPA Funding Guidance direction on updates and revisions. While the Estuary Partnership is in the early stages of the update process, the form of the update is still undetermined, but may consist of; (1) an Addendum to the current CCMP; (2) a Strategic Plan that serves as a companion piece to the CCMP; or (3) revisions to select action plans in the current CCMP. The update, consistent with EPA guidance will include;

- Any revised and/or new goals, objectives, and action plans; note that new action plans should indicate whether they are replacements for or enhancements of former plans;
- Identify entities that will serve as lead implementers;
- A timeline and milestones for completion;
- Where the action will take place and/or the natural resources affected;
- Potential costs;
- Performance measures (quantitative/environmental results wherever possible); and
- A cross walk description of how all new actions/updated actions compare with related original actions and what the basis was for change.

The Estuary Partnership's EPA Regional Coordinator participated in the retreat and was notified in February 2023 of the intent to complete a CCMP Update rather than a Revision.

CCMP Actions:

The Management Plan is a comprehensive Regional Plan, implemented through coordinated effort. The actions within the Management Plan fall into two categories – shared actions and Estuary Partnership actions. Within those two categories, actions are further grouped by program area.

Shared Actions

Habitat Restoration

ACTION 1: Inventory habitat types and attributes in the lower Columbia River and estuary and prioritize those that need protection and conservation; identify habitats and environmentally sensitive lands that should not be altered.

ACTION 2: Protect, conserve, and enhance priority habitats, particularly wetlands, on the mainstem of the lower Columbia River and in the estuary.

ACTION 3: Monitor status and trends of ecosystem conditions.

ACTION 4: Establish and maintain Columbia River flows to meet ecological needs of the lower Columbia River and estuary.

ACTION 5: Avoid the introduction of non-native invasive species.

ACTION 6: Manage human-caused changes in the river morphology and sediment distribution within the Columbia River channel and estuary to protect native and desired species.

Land Use Practices

ACTION 7: Develop floodplain management and shoreland protection programs.

ACTION 8: Reduce and improve the water quality of stormwater runoff and other non-point source pollution.

ACTION 9: Ensure that development is ecologically sensitive and reduces carbon emissions.

Water Quality and Contaminant Reduction

ACTION 10: Expand and sustain regional monitoring of toxic and conventional pollutants.

ACTION 11: Reduce conventional pollutants.

ACTION 12: Cleanup, reduce or eliminate toxic contaminants, particularly contaminants of regional concern.

Estuary Partnership Actions

Education and Stewardship

ACTION 13: Provide information about the lower Columbia River and estuary that focuses on water quality, endangered species, habitat loss and restoration, biological diversity, and climate change to a range of users.

ACTION 14: Create and implement education and volunteer opportunities for citizens of all ages to engage in activities that promote stewardship of the lower Columbia River and estuary.

ACTION 15: Identify and improve public access to the river.

Regional Coordination and Synchronicity

ACTION 16: Facilitate and assist federal, tribal, state and local governments' protection of the lower Columbia River and estuary.

ACTION 17: Create and maintain a regional entity (Lower Columbia Estuary Partnership) to advocate for the lower Columbia River and estuary and unify and coordinate management.

CCMP Goals for focus during this Workplan:

Habitat Restoration:

Habitat Restoration Program – Restore habitat for multiple species through collaborative private, local, and state actions that implement on the ground conservation and restoration projects. The Program focus is on CCMP Actions – 1,2,4, 5,7,11,16

Regional Restoration Coordination and project identification – Advance information about the lower river, bring partners together to use emerging science and data and focus restoration activities. The Program focus is on CCMP Actions – 1,2,4, 5,7,11,16

Technical Assistance – Provide technical assistance with site assessment, project design, construction, and effectiveness monitoring. The Program focus is on CCMP Actions – 1,2,4, 5,7,11,16

Effectiveness Monitoring – Monitor effectiveness of restoration sites. The Program focus is on CCMP Actions – 1,2,4, 5,7,11,16

Water Quality and Toxics Reduction

Water Quality Monitoring - Quantify spatial and temporal variation of toxics in water, sediment, and salmon, including emerging contaminants. The program focus is on CCMP Actions – 10,11,12,13

Toxic Monitoring of Juvenile Salmonids & Ecosystem – Assess accumulation of toxic contaminants in sensitive habitat areas, contaminant trends over time, and impacts on juvenile salmonids. The program focus is on CCMP Actions – 10,11,12,13

Marine Debris – Remove marine debris. This program focus is on CCMP Actions – 12 and 13

Land Use

Stormwater Projects – Implement stormwater management projects. The CCMP Actions addressed are 8 and 12

Education and Stewardship

Environmental Education – Create and implement a robust environmental education program, including classroom and field-based education, community education, volunteer programs, and on-water opportunities. CCMP Actions are 13, 14, and 15.

Regional Collaboration

Assist Governments with Protection of Lower River – Improve coordination of lower river protection. The CCMP Actions addressed is 16.

Maintain Estuary Partnership- Maintain program office, conference governing structure, financial plan, implement management plan. This area is focused on CCMP Action 17.

Diversify and Leverage Funding – Increase private sector partnerships and support and expand public investment. This area is focused on CCMP Action 17.

Diversity, Equity, Inclusion and Environmental Justice – Increase inclusion and equity in the organization and programs. This area focuses on CCMP action 17.

Host Regional Information Sharing – host annual Science to Policy Summit, bi-annual science conference, and public five-year state of the estuary reports. This program area focuses on CCMP Action 17.

Update CCMP- The update process has begun and is planned to be complete in 2024.

Board of Directors:

The organizational structure of the Estuary Partnership provides that the Board of Directors establishes policy and guides the overall direction of the program. The Board is responsible for fiscal and administrative oversight as well as hiring the organization’s Executive Director.

The Estuary Partnership’s Executive Committee undertakes ongoing policy and budgetary decisions.

As of April 2023, the Estuary Partnership’s Board of Directors is comprised of the following members, with new appointments and reappointments scheduled to take effect in June 2023.

Executive Committee & Officers:

Matthew Jones, PhD
*NW Emergent
Chair*

Rian Sallee
*Washington Department of Ecology
Vice Chair*

Jane Bacchieri
*Secretary |Treasurer
Nonprofit Leadership, Coastal
Management*

John Netto
*US Fish & Wildlife Service
Member at Large*

Yvonne Vallette
*US EPA
Ex Officio*

Board Members:

Rich Doenges
Washington Department of Ecology

Tabitha Reeder
*Lower River Ports & Shipping
Port of Kalama*

Susan Holveck
*K-12 Science Education
Portland Public Schools (Retired)*

VACANT
*Washington Department of
Fish & Wildlife*

Lisa Charpilloz-Hanson
*Oregon Watershed
Enhancement Board*

Margaret Magruder
*Agriculture Magruder Farms/Local
Government -Columbia County*

Joseph Hattrick, PhD
*Superintendent, Rainier School District
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Education, Equity*

Mary Lou Socia
*Community Engagement
US Environmental Protection Agency
(Retired)*

Ex Officio

Mark Bierman
US Army Corps of Engineers

Irma Lagomarsino
*National Marine Fisheries Service
Chair- Board Development
Committee*

John Netto
US Fish & Wildlife Service

Yvonne Vallette
*US Environmental Protection
Agency*

VACANT
US Geological Survey

Lower Columbia Estuary Partnership Staffing:

The Estuary Partnership undertakes the activities described in this workplan using CWA §320 funds for the National Estuary Program. In the 2024-2025 budget these funds are projected to support a total of 5.4 FTE of the projected 27.95 FTE. In addition to regular full and part-time staff, the Estuary Partnership hosts several interns throughout the year including Summer Recreation Leaders who join the on-water paddling programs. The Summer Recreation Interns are recruited through a partnership with several BIPOC environmental organizations including the Blueprint Foundation and Green Workforce Academy. The Estuary Partnership also hosts several temporary positions and intern positions throughout the year to supplement regular staff in areas such as GIS, monitoring and data collection, and restoration field work. Current staff and duties are summarized below:

Staff 2023

Executive

Dr. Elaine Placido, Executive Director

Elaine became the Executive Director of the Estuary Partnership in 2020. She serves as the Chief Executive Officer reporting to the Board of Directors. She oversees all programs and operations of the organization and collaborates with both public and private partners to develop programs and policy, works to secure the financial stability of the organization, and directs the implementation of programs to carry out the mission of preserving and enhancing the lower river and estuary.

Fiscal and Operations

Madeline Marucha, Operations Coordinator

Madeline joined the Estuary Partnership in 2021. The Operations Coordinator manages the daily operational needs of the Estuary Partnership, coordinates the work of several internal and board/staff working groups, maintains contact databases, assists with events, serves as a member of the HR team, and oversees general office management. Madeline serves as the organization's DEI coordinator and facilitates team coordination across the organization.

Jana Magnuson, Financial Accounting Coordinator

Jana joined the staff in 2023; she oversees financial management, budgeting, and contract administration. This includes fiscal tracking and reporting, post award grant and contract management, fiscal recordkeeping, and reports, and ensuring completion of annual audits.

Connor Kerns, Cost Accounting Coordinator

Connor joined the Estuary Partnership in 2018; he coordinates payroll processing, accounts receivable and payable, cost accounting and works with teams for project budget construction and serves as a member of the HR team. Connor also works to foster cross-team collaboration within the organization.

Community Relations

Erinne Goodell, Communications and Development Manager

Erinne joined the Estuary Partnership in 2014. Erinne is focused on increasing awareness of Estuary Partnership programming and amplifying the work of partners that support achievement of the CCMP in the lower Columbia region. She serves as a leader in planning and implementing communications strategies for the organization and works across teams and programming.

Jasmine Zimmer-Stuckey, Public and Legislative Affairs Specialist

Jasmine joined the Estuary Partnership in 2021. She implements strategies for development, communications, and events to support the Estuary Partnership's programs.

Technical Programs

Catherine Corbett, Chief Scientist

Catherine joined to the Estuary Partnership in 2008. She identifies research needs and tools for the region, works with partners to develop regional strategies for restoration and monitoring, and advances knowledge and understanding of the lower river. She oversees the habitat restoration program and toxics monitoring activities. She is the lead on climate change and ocean acidification. She manages the Estuary Partnership Science Work Group which provides technical expertise to guide technical work.

Habitat Restoration Team

Chris Collins, Restoration Program Lead

Chris joined the staff in 2009; Chris identifies, designs, and implements habitat projects. This includes evaluating sites for restoration potential, coordinating the collection of baseline data, developing restoration alternatives, selecting restoration designs, developing scopes of work, managing on-the-ground project implementation and construction oversight, and coordinating post project effectiveness monitoring.

Jenny Dezso, Principal Restoration Ecologist

Jenny joined the Estuary Partnership in 2016. She works with partners and private landowners across the region to identify, develop and implement habitat restoration projects to assist in the recovery of Pacific Salmon. She is leading implementation of several projects that will restore historic floodplains and wetlands, revegetate native riparian forests, and place large wood habitat structures.

Paul Kolp, Restoration Program Lead

Paul started work with the Estuary Partnership in fall 2010. Paul provides advanced technical support to the Estuary Partnership and project partners in the scoping, design, development, and implementation of habitat restoration projects. He assesses restoration project feasibility, conducts technical investigations, analyzes data, and develops models and restoration alternatives in coordination with landowners and multiple project partners.

Curtis Helm, Principal Restoration Ecologist

Curtis joined the Estuary Partnership in 2019. He works with the Science Team on implementing wetland, floodplain, and stream restoration projects; his primary focus has been on the Steigerwald Floodplain Restoration Project. He has extensive experience working on all aspects of ecological restoration, from design through permitting and including construction management. At Steigerwald, Curtis was instrumental in assessing the climate impact of our restoration and construction work, and the subsequent mitigation plan.

Doug Kreuzer, Principal Restoration Ecologist

Doug joined the Estuary Partnership in 2019. Doug works with the Restoration Team to develop and implement habitat restoration projects and provide technical assistance to partners. Doug has focused primarily on the Steigerwald Restoration Project and led the revegetation work at the refuge, and currently leads restoration projects upstream of the refuge on Campen Creek.

Keith Marcoe, Physical Scientist

Keith joined the staff in 2007; he oversees and implements all GIS and data management projects. He develops technical tools and resources to help implement various monitoring and restoration projects. Keith maintains all GIS, videography, and technical databases for the organization.

Research and Monitoring

Dr. Sarah Kidd, Senior Scientist

Sarah joined the staff in 2017; she works with public and private partners, including federal, state and local agencies to coordinate and implement a regional ecosystem monitoring program for toxic and conventional pollutants. Sarah manages the Research and Monitoring Team, working closely with the Sarah is also responsible for monitoring and evaluation plans to measure the success of regional restoration programs.

Sneha Rao Manohar, Research Scientist III

Sneha joined the Estuary Partnership in the summer of 2019. Sneha works with the Senior Scientist to implement the Ecosystem Monitoring Program, and the Action Effectiveness Monitoring Program. She is also key in developing a drone program within the organization and manages the Columbia County Water Quality program.

Ian Edgar, Research Scientist II

Ian joined the Estuary Partnership in the summer of 2021. Ian works with the Senior Scientist and Research Scientist to implement the Ecosystem Monitoring Program, the Action Effectiveness Monitoring Program, and will be working on components of the Inventory of Carbon Sequestration Inventory and serves as a drone pilot.

Andrea Hurzeler, Research Scientist I

Andrea joined the Estuary Partnership in early 2023. Andrea works with the Senior Scientist and Research Scientists to implement the Ecosystem Monitoring Program, the Action Effectiveness Monitoring Program.

Derek Marquis, Research Technician

Derek joined the Estuary Partnership as a Field Technician supporting the Ecosystem Monitoring Program, in the fall of 2022 he joined the organization full time as a Research Technician. Derek works with the rest of the Research and Monitoring Team to implement a variety of research and monitoring projects.

Community Programs

Chris Hathaway, Community Programs Director

Chris joined the Estuary Partnership in 1998; he now manages the Community Programs work of the organization including the Lower Columbia Water Trail, our stormwater land use programs, and riparian restoration. Chris works with a wide variety of local partners from all sectors to serve their needs through our programming.

Samantha Dumont, Volunteer Coordinator

Sam joined the Partnership in 2010; she coordinates all volunteer events, including annual riparian plantings. Sam also delivers education and field programs.

Aaron Guffey, Stormwater Project Manager

Aaron joined the Estuary Partnership team in 2022, he identifies, develops, and implements stormwater projects and provides technical assistance to partners to implement and assess success of water quality improvement actions to meet the organization's stormwater management goals.

Valerie Pufahl, Education Team Manager

Marci Krass, Community Programs Principal Restoration Ecologist

Marci joined the Estuary Partnership in 2021, she coordinates the education team's riparian restoration activities in the lower river and implements elements of the education program to meet the organization's ecosystem planting, education, and community engagement goals.

Alvey Seeyouma, Field Technician

Alvey joined the Estuary Partnership in 2020. Alvey works with the Community Programs Principal Restoration Ecologist to implement riparian restoration projects throughout the study area. Alvey also works with the Education Team on a variety of classroom and on-water projects. Alvey brings important perspective and experience with TEK to the work the Estuary Partnership and our partners plan and implement.

Environmental Education Team**Valerie Pufahl, Education Team Manager**

Valerie joined the Estuary Partnership in 2022. Valerie leads a team of Environmental Educators to implement a variety of programming including place-based science education, classroom science lessons, and on-water programming. Valerie focuses on expanding the quality and reach of programs, fostering innovation, and forming and strengthening partnerships with the communities.

Tonya McLean, Environmental Education Team Coordinator

Tonya joined the Partnership in 2012; she develops and delivers science lessons and field programs for students, teacher workshops, and on-river programs.

McKenzie Miller, Environmental Education Team Coordinator

McKenzie joined the program in 2006; she develops and delivers science and field programs for students, coordinates program scheduling with teachers, delivers teacher workshops. McKenzie also coordinates community paddles and summer education activities.

James Sterrett, Environmental Educator III

James joined the Partnership in 2012; he develops and delivers science and field programs for students, teacher workshops and on-river programs.

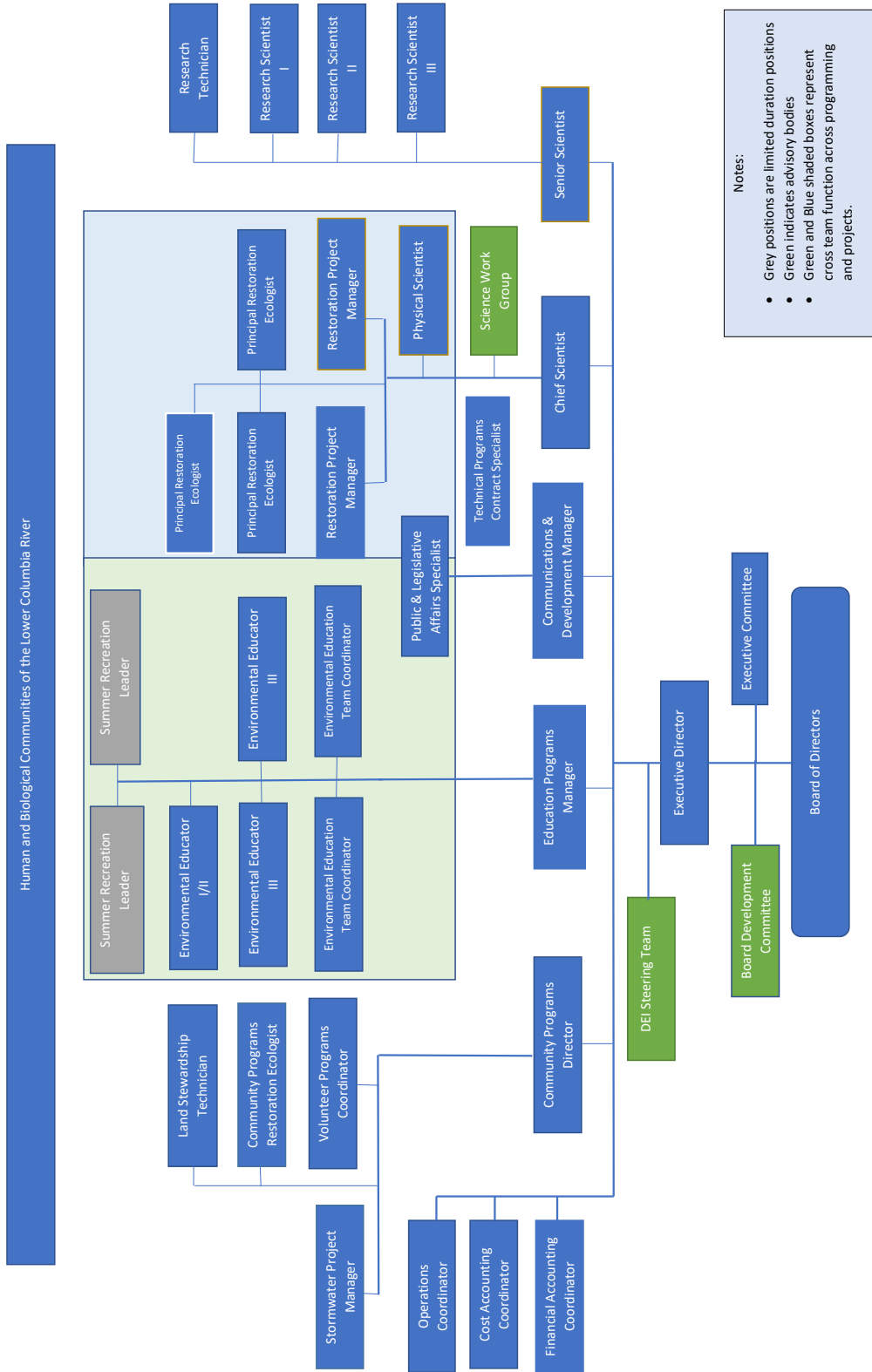
Andy Bauer, Environmental Educator III

Andy joined the Estuary Partnership in 2013; he develops and delivers science and field programs for students, teacher workshops and on-river programs.

Alex Rhodes, Environmental Educator II

Alex joined the Estuary Partnership in 2021, he develops and delivers science lessons and field programs for students, teacher workshops, and on-river programs.

Organization Chart 2023-2024



New and Ongoing Projects:

Project Name	Description	CCMP Action	Outputs /Deliverables/ Milestones	Environmental Objective/ Long-Term Outcomes	Estimated Budget	Lead, Partners & Role	Core Water Program	
Habitat Restoration Program <i>Ongoing</i>	Sustain funding to restore habitat for multi-species through collaborative private, local and state actions that implement on-the-ground conservation and restoration projects.	1	The Management Plan goal: Restore 25,000 acres of habitat by 2025 (above 1999 levels.) Also: 1) no net loss of native habitats, 2) recovery of 30% of historic extent for priority habitats by 2040 (10,382 acres), and 3) recovery of 40% of historic extent for priority habitats by 2050 (22,480 acres).	Adequate habitat is protected, conserved, or restored to sustain biodiversity of species.	Up to 0.2 FTE restoration project development from EPA §320. \$2,000,000 - \$15,000,000 per year to Estuary Partnership projects from federal, state & local funders. \$443,500 – BIL through 2026.	Science Work Group, local & state govts Tribes, federal agencies, watershed councils, implement habitat & raise funds	Protect wetlands, Improve water quality.	
Regional Restoration Coordination, Project ID <i>Ongoing</i>	Advance information about lower river, bring partners together to use emerging science and data to help focus restoration activities.	2 4 5 6 7 9 11 16	Guide habitat restoration projects to most critical sites and functions.	Habitat restored based on recovering ecosystem processes; maximum ecological benefits achieved.	0.2 FTE, plus other technical and staff involvement – if funded.			
Technical Assistance <i>Ongoing</i>	Provide partners with technical assistance with site assessment, project design, construction and effectiveness monitoring.		Support of partners meeting our Management Plan habitat restoration goals (see above)	Adequate habitat is protected, conserved or restored to sustain biodiversity of species.	Up to 0.2 FTE if funded.			Lead – Chief Scientist. Partners - restoration sponsors
Effectiveness Monitoring <i>Ongoing</i>	Monitor effectiveness of restoration sites. Continue monitoring at current sites.		Data and results used for research, adaptive management, and future restoration project planning.	Use best available science to design projects more effectively.	\$750,000 per year: if funding is secured.			Lead – Senior Scientist. Partners – CREST, LCFRB, BPA, Cowlitz Tribe, others

Project Name	Description	CCMP Action	Outputs /Deliverables/ Milestones	Environmental Objective/ Long-Term Outcomes	Estimated Budget	Lead, Partners & Role	Core Water Program
Cold Water Refuges <i>Ongoing</i>	Continue to assess locations for potential coldwater refuges. Develop designs, permits and secure funding for construction of projects.	1	Complete one cold water refuge site, assess and identify additional sites.	Increase quantity of cold-water refuges to ensure sufficient quantity.	\$XX EPA § 320. \$44,234 BIL funds. \$75,000 from EMSWCD.	Senior Scientist, Science Work Group: Guide project. EMSWCD, Other partners – funding.	
		2					
Community Resiliency <i>Ongoing</i>	Assess impact of potential changes in sea level, assist communities.	4	Adapt habitat restoration program to address projected changes in sea level and impact on tidal habitat.	Protect habitat (and infrastructure) from projected changes in sea level rise and climate change.	NFWF \$165,000	Communication s Team, Chief Scientist. State and local governments, communities. WA Sea Grant, NFWF.	Protect wetlands, restore habitat, improve water quality.
		5					
		7					
		11					
Water Quality Monitoring <i>Ongoing</i>	Quantify spatial & temporal variation of toxics in water, sediment, and salmon, including emerging contaminants: pharmaceuticals, industrial contaminants, flame retardants	16	Monitoring instituted at statistically valid number of sites throughout the lower river.	Sustained monitoring and analysis provide knowledge of contaminants, sources, pathways and define actions to reduce toxics and reduce impact on species and human health.	\$3,500,000 per year minimum from state and local sources.	Senior Scientist, Science Work Group, state and local govts, partner nonprofits, communities, SWCDs.	Improve water quality, reduce toxics.
		11					
		12					
		13					
Climate Adaptation and Mitigation <i>New</i>	Explore the potential of the voluntary carbon market to pay for restoration, protection, and/or long-term maintenance of restored natural lands.	1 9 16 17	Collaborate with partners to explore opportunities/challenges to using restoration in the carbon market. Create a group to study carbon offsets in AG sector.	Greater biodiversity, more permeability for wildlife corridors, greater soil retention, cleaner water. Reduction in GHG emissions from reducing soil tillage, manure stockpile	EPA Sec. 320 funds 0.2 FTE per year with additional funding from partners.	Chief Scientist, local, state, and federal partners, partner nonprofits, AG community.	Improve Water quality.

Project Name	Description	CCMP Action	Outputs /Deliverables/ Milestones	Environmental Objective/ Long-Term Outcomes	Estimated Budget	Lead, Partners & Role	Core Water Program
Marine Debris <i>Ongoing</i>	Remove marine debris.	8 12 13	Remove Marine Debris using data collected in mapping projects and from hotline.	Permanently remove trash and other debris to help limit contamination from debris. Citizen acknowledgement of harm, changing patterns.	\$10,000 to \$25,000 per year – funding from local sources.	Community Programs Director, nonprofit partners, community members, volunteers	Improve water quality, reduce toxics, manage stormwater.
Stormwater Projects – School Based <i>Ongoing</i>	Implement stormwater management projects at schoolyards.		Remove impervious surface 2-6 schools every two years.	Reduced runoff. Provide school gardens, outside classroom, or soft surface play area.	\$12,000 - \$200,000 per activity (depends on project scope).	Schools, PTAs, local community members, partner nonprofits, local governments.	
Stormwater Projects - Commercial <i>Ongoing</i>	Implement stormwater management projects with local businesses and local governments.		Remove impervious surface with 1 – 2 business every two years.	Reduced runoff.		Local Businesses, govts, partner nonprofits, communities.	
Traditional Ecological Knowledge in Restoration and Engagement - <i>New</i>	Engage native communities and other BIPOC community groups. Planting first foods and other plants of cultural interest. TECK practices	2 5 8 9 11 13 14 15	Enhance 1 site using TECK principles, avoiding spray. 6 community events. Develop seasonal fellow program.	Restore site for harvest of traditional foods. Provide learning opportunities for community groups. Provide fellowships for BIPOC community.	\$250,000 \$320 funds, additional funds from local partners.	Community Programs Team. Confluence Project and other partner organizations.	

Project Name	Description	CCMP Action	Outputs /Deliverables/ Milestones	Environmental Objective/ Long-Term Outcomes	Estimated Budget	Lead, Partners & Role	Core Water Program
Environmental Education – Science in the Classroom- <i>Ongoing</i>	Science lessons in the classroom and on field trips. Lessons include opportunities to learn about water quality, habitat, climate change, TEK, food webs, native and invasive species, and other topics w/place-based focus.	13 14	Provide 28,000 hours of instruction to 4,000 students per year. Engage students in hands-on care and scientific application.	Increased knowledge of natural systems; Habitat improvement; lower water temperatures; greater connection to natural work for students, stewardship.	\$1.5m per year, up to \$175,000 per year from \$320 funds.	Teachers, students, parents Community members Partner nonprofits, volunteers	Protect wetlands, manage stormwater, reduce toxics, improve public access.
Teacher Prof. Development - <i>Ongoing</i>	Provide professional development workshops to K-8 teachers to teach field-based teaching.		Curriculum for teachers to implement programs. Workshop curriculum.	Increase capacity of teachers to deliver programs.	\$9,500 per workshop		
Community engagement and Stewardship - <i>Ongoing</i>	Organize restoration and maintenance projects at restoration sites, recruit volunteers and coordinate projects. Remove invasive plants and plant native trees and shrubs.	2 5 11 12 13 14 15	Approximately 10 projects per year. With community members and students, plant over 7,500 native trees and shrubs.	Habitat improvement; lower water temperatures; greater awareness of community members of their role in protecting the river; greater stewardship.	\$4,300 per event – state, local and federal funds		
Community Paddles <i>Ongoing</i>	Host on-river events with canoes in various communities to provide access to the river.		Up to 25 events per year.	Build long term stewardship; provide more access to the river for diverse communities.	\$3,620 per event – state, local, federal funds		
Water Trail Web site and Water Trail Ambassador <i>Ongoing</i>	Expand partnerships with and build capacity of low-income communities, communities of color, and Indigenous people to break down barriers and increase access.	13 15	Depth of partnership, sharing funding, increased capacity of new partner.	Increased access and experiences on the river. Increased capacity of partner organization.	\$20,000 - \$40,000 from state and local funders		

Accomplishments 2022- 2023:

Project Name	Objective	Project Description	Lead Implementer, Partners	Accomplishments & Deliverables	Expected Long-Term Outcomes	External Constraints:
Habitat Restoration						
Cold Water Refuges	Monitored and mapped tributaries for potential cold-water refuges; assessed feasibility of techniques to enhance confluence areas so they can provide adequate refuge for adult salmonids.	Identify gaps in cold water refuges for migrating fish and ways of addressing gaps.	Estuary Partnership, Science Work Group, EMSWCD	Completed remote sensing project to ID cold water refuges in the EFLR.	Improved habitat.	Challenges with land ownership and long-term maintenance.
Habitat Restoration	The Management Plan goal: Restore 25,000 acres of habitat by 2025 (above 1999 levels.) Also: 1) no net loss of native habitats, 2) recovery of 30% of historic extent for priority habitats by 2040 (10,382 acres), and 3) recovery of 40% of historic extent for priority habitats by 2050 (22,480 acres).	Sustain funding to restore habitat for multi-species through collaborative private, local and state actions that implement on-the-ground conservation and restoration projects.	Estuary Partnership, Science Work Group, Local and State Governments, Tribes, Federal Agencies, Watershed Councils, partner nonprofits	Partner-led projects contributed 3,289.5 acres of habitat at 13 sites. Completed the Steigerwald Floodplain Reconnection Project restoring 965 acres of floodplain. Since 2000, completed 84 projects, restored 5,149 acres – combined with partners; 253 projects and 33,113 acres restored.	Improved habitat, water quality.	
Community Programs						
Environmental Education	Deliver school year education programs to facilitate outdoor science education to connect students to the local environment and build science knowledge.	In class science education, field trips, on-water activities for students, and check out kits for educators.	Estuary Partnership, Partner School Districts, WA Ecology, state and local funders, state, and local nonprofits	Provided environmental education activities to 3,497 students for 17,645 instructional hours. Students planted 9,018 native trees and shrubs at 8 locations. Developed 20 online ecology lessons. Developed 18 checkout kits for teachers.	Increase stewardship of the lower river.	Lingering impacts from the pandemic impacted programming during the 2021/22 school year.

Project Name	Objectives	Project Description	Lead Implementer, Partners	Accomplishments & Deliverables	Expected Long-Term Outcomes	External Constraints:
Volunteer Engagement and Stewardship	Implement volunteer and engagement activities; integrate programs with habitat restoration projects; maintain an internship program for BIPOC students and early career professionals.	Seasonal stewardship volunteer and community engagement activities. The integration of volunteer activities into habitat restoration sites where practical. Intern program.	Estuary Partnership, State and Local partners, partner nonprofit organizations, partner school districts.	7,498 volunteers, provided 29,992 hours of service, at 162 community events, and planted 68,959 Native trees and shrubs planted. Hired two Summer Recreation Leader positions each summer, providing over 400 hours of paid internships to 3 students.	Increased stewardship of the lower river. Improved water quality and habitat.	Lingering impacts from the pandemic impacted programming during 2021/22.
On-Water Programming	Implement On-Water programs including-community paddles in a variety of locations for a variety of audiences, Link community paddles to the Water Trail. Develop a Water Trail campsite between Skamokawa and Chinook. Partner with local retailers and community events. Host Water Trail clean-up events	Leading community paddle programs, focus on serving low-income community members, individuals and communities of color, underrepresented or under-resourced youth, or they have a specific culturally relevant focus.	Estuary Partnership, State and Local agencies and partners, partner nonprofit organizations.	Led 62 community paddles. Hosted 965 community members on the water. Participated with over 100 paddlers on the Ridgefield Big Paddle celebrating National Water Trails Day. Hosted students on a main-stem Columbia paddle. Continued to host the Columbia Water Trail website, provide mapping, and answer requests for information from the public.	Increased stewardship of the lower river.	Lingering impacts from the pandemic impacted programming during 2021/22.

Project Name	Objectives	Project Description	Lead Implementer, Partners	Accomplishments & Deliverables	Expected Long-Term Outcomes	External Constraints:
Research and Monitoring						
Identify and fill data gaps and collect data for region	Provide information about the lower Columbia River and estuary that focuses on water quality, endangered species, habitat loss and restoration, biological diversity, and climate change to a range of users.	Collect data for region, including but not limited to - Land cover data, bathymetry, topography - Shoreline condition, change in impervious surface - Mapping changes in sea level and impacts to floodplains - Fish and water quality monitoring - Climate change impacts on the lower Columbia River	Estuary Partnership, WA Sea Grant, BPA, EMSWCD, NFWF, OWEB, Metro, NOAA, Columbia County SWCD, Science Work Group.	-Hosted multiple workshops on SLR with WA Sea Grant in SW WA. - Continued EMP and AEM programs. - Secured OWEB funding for Columbia Co. water quality monitoring. - EMSWCD funding to continue work at Horsetail and Oneonta Creeks. -Designed carbon sequestration research beginning at two sites, as a BIL project.	More resilient and informed communities.	Long-term, dedicated funding for monitoring remains a challenge. This challenge is keenly felt in small jurisdictions with significant water quality challenges, where continued monitoring, analyses, and response are all outside of their fiscal and technical capacity.
Land Use						
School Yard Stormwater Projects	Reduce and improve the water quality of stormwater runoff and other non-point source pollution.	Implement School Stormwater projects. a. Retrofit schoolyards to reduce stormwater runoff. b. Deliver stormwater and water quality curricula	Estuary Partnership, WA Ecology, Tualatin Soil and Water Conservation District, LCFRB, City of Portland, Partner School Districts and communities.	Completed site assessments at Washington County. Provided Stormwater education to students. Developed and began implementation of a project at Washougal High School. Began implementation at Mittleman Jewish Community Ctr.	More resilient communities, improved water quality.	Occasional site constraints that were discovered during design, that can impact project viability and cost.

Project Name	Objectives	Project Description	Lead Implementer, Partners	Accomplishments & Deliverables	Expected Long-Term Outcomes	External Constraints:
Regional Coordination	Build partnerships with diverse communities to increase inclusivity of and support for local community priorities.	Facilitate and assist federal, tribal, state, and local governments' protection of the lower Columbia River and estuary. <ul style="list-style-type: none"> •Participate in, and lead where appropriate, regional, or federal efforts in Columbia Basin on such topics as climate change, species recovery, ballast water, invasive species and water quality monitoring, and toxics reduction focused on the lower Columbia River; link estuary to Basin •Help local, regional, national, and tribal agencies of government integrate emerging data into land use practices and policies •Identify vulnerable communities and prioritize work in those areas •Maintain a robust Science Work Group to share scientific expertise and emerging science 	Estuary Partnership, Science Work Group, NOAA, EPA, CRBRA working group, WA Sea Grant, NFWF, Confluence, area Tribes, Partner local and state governments, federal agencies, local communities.	Supported 50 staff and partners to attend the Confluence Field School. Monthly DEI Steering team meetings and adoption of a DEI 3-Year Strategy. Completed a Steigerwald Story map. Participated as a member of the Columbia River Basin Restoration Act working group. Participated in the 4-state Columbia Basin Collective. Participated as a steering committee member of Follow the Water, and PMEP. Along with partner, WA Sea Grant, received NFWF grant to complete community-driven, sea level rise and climate resilience planning. Completed the final draft of the Equity Plan. Participated as a member of the EPA-ANEP Environmental Justice/DEI working group	A more resilient community prepared to meet the challenges of climate change.	

Budget for Workplan Expenditures:

Table 1, below, provides a summary budget that identifies the major costs allocated to EPA's \$320 base grant funding for the period July 1, 2023, through June 30, 2025. All the budget items identified here are associated with implementation of the CCMP and administration of the Estuary Partnership. The Estuary Partnership uses 320 funds in four ways:

- **Staffing:** Staff positions are described herein. Benefits are provided as a package to full-time employees with partial benefits extended to regular part-time employees. These benefits are outlined in the Personnel Policies adopted by the Board of Directors (updated in 2022) and include retirement and health and dental insurance. Retirement is prorated for regular part-time employees.

The funds support salary, fringe, payroll taxes, workers compensation insurance, health care for those employees. These core functions do the fiscal management, accounting, invoicing, insurance compliance, grant and contract compliance. They ensure there are adequate controls and accountability in place and that these are adhered to by all employees and the organization to meet all IRS and funder requirements. These core staff write the grants and contracts that ensure the projects and programs are sustained, meet regional needs, and implement the CCMP.

In addition, to the core executive, fiscal and administrative personnel, a portion of the senior program managers are also supported by Section 320 Funds. The portions of these positions are responsible for program development and implementation of the actions included in the table of new and ongoing activities.

There is a total of 5.43 FTE supported by Section 320 Funds.

- **Operating:** EPA's funds are used in the Estuary Partnership to support the core business needs of the organization, information systems, telephones, office supplies, etc. that support only those portions of positions which are supported by EPA/NEP funds.

These funds also support a portion of training for staff including;

- HR, fiscal, first aid, DEI, and other training for the portion of the organization supported by Sec. 320 Funds.
 - Confluence Field School- Sec. 320 Funds support the annual completion of Confluence Field School by Board and staff. The Field School provides in-depth training, including in the field, about regional indigenous people, history, and culture; traditional ecological knowledge and its application in a natural resource setting; and provides increased opportunities for collaboration with and support of regional indigenous peoples.
 - Confluence Next Steps - Sec. 320 Funds support the continuation of the basic Field School application with more field-based activities, a summit, shared learning, and hands on activities to improve our habitat restoration work in a more TEK-informed and culturally appropriate manner.
- **Operating Contracts** EPA funds support several contracts including:
 - The annual Science to Policy Summit – currently scheduled for the Fall of 2023 and likely in either the early summer or fall of 2024, as well.

- Up to \$20,000 of EPA funds, annually, are identified in the budget for potential facilitation and community engagement related to the update of the CCMP.
- Up to \$53,000 of EPA funds, annually, are identified in the budget for contracts with seed collection, site prep, planting, maintenance as part of a TEK pilot project and TEK subject matter experts for consultation.
- Travel: EPA Funds support the attendance, annually, at a spring meeting with EPA in Washington DC and a fall Tech Transfer meeting. EPA funds also support local/in-study area mileage for the staff supported by the EPA.

NEP EPA Funds

As projected, NEP funds support approximately 8% of the total projected budget. They are matched 1:1 as required by statute and are leveraged annually at least 10:1 (as required in EPA guidance) making this a program with significant local impact. The NEP award from EPA funds base operations and core functions to maintain the program, this includes percentages of several positions.

Project Years July 1, 2023 to June 30, 2025 - Budget Summary Table

Primary budget categories and match funds are summarized below for the period July 1, 2023, through June 30, 2025.

Summary	2023-2024	2024-2025	2-Yr-Total Revised
Staff Costs	\$628,726	\$701,748	\$1,330,474
Operating Costs	\$97,112	\$96,558	\$193,337
Contracts	\$107,983	\$35,827	\$143,477
Travel	\$16,512	\$16,200	\$32,712
Subtotal Costs:	\$850,333.00	\$850,333.00	\$1,700,666.00
Total Match:	\$850,333.00	\$850,333.00	\$1,700,666.00
Total:	\$1,700,666.00	\$1,700,666.00	\$3,401,332.00

Table 1. July 1, 2023, through June 30, 2025

Budget Category:	July 1, 2023 - June 30, 2024	July 1, 2024 - June 30, 2025	2 Year Total
EPA NEP Funds:	\$ 850,333	\$ 850,333	\$ 1,700,666
Personnel:			
Salary Total:	\$ 535,086	\$ 565,926	\$ 1,101,012
Fringe Total	\$ 93,640	\$ 135,822	\$ 229,462
<i>Personnel Subtotal:</i>	\$ 628,726	\$ 701,748	\$ 1,330,474
Operating:			
Office Supplies	\$ 1,000	\$ 1,000	\$ 2,000
Meeting Exp	\$ 3,000	\$ 2,500	\$ 5,500
Postage	\$ 300	\$ 300	\$ 600
Capital Equip Pro R, Computer Equip, Repairs	\$ 5,000	\$ 2,000	\$ 7,000
<i>Other Operating:</i>			\$ -
Telecommunications	\$ 750	\$ 750	\$ 1,500
Legal Not & Adv	\$ 900	\$ 900	\$ 1,800
Copying, Copy Rental	\$ 1,750	\$ 1,750	\$ 3,500
Dues/Scrip	\$ 1,000	\$ 1,000	\$ 2,000
Facilities	\$ 43,260	\$ 44,558	\$ 87,818
Insurance	\$ 6,800	\$ 6,800	\$ 13,600
Professional Fees	\$ 7,000	\$ 7,000	\$ 14,000
Training and Develoment	\$ 26,352	\$ 28,000	\$ 54,352
<i>Subtotal Operating Costs:</i>	\$ 97,112	\$ 96,558	\$ 193,670
Transportation:			
TRAVEL - Out of Study Area	\$ 15,000	\$ 15,000	\$ 30,000
Ground Transportation- Study Area Travel	\$ 1,512	\$ 1,200	\$ 2,712
<i>Subtotal Transportation</i>	\$ 16,512	\$ 16,200	\$ 32,712
Contracts:			
Information Systems Maintenance	\$ 4,200	\$ 4,200	\$ 8,400
Accounting	\$ 5,352	\$ 5,352	\$ 10,704
Legal	\$ 1,000	\$ 1,000	\$ 2,000
Graphics	\$ 350	\$ 350	\$ 700
Printing (outside vendor)/ Website	\$ 1,000	\$ 1,000	\$ 2,000
Facilitator	\$ 15,000	\$ 10,000	\$ 25,000
Summits, Workshops, Outreach Mtgs	\$ 28,081	\$ 13,925	\$ 42,006
Non Technical Projects	\$ 53,000		\$ 53,000
<i>Subtotal Contracts:</i>	\$ 107,983	\$ 35,827	\$ 143,810
Totals:	\$ 850,333	\$ 850,333	\$ 1,700,666

Table 2. Travel July 1, 2023, through June 30, 2025

Trip Purpose	Attendees	Date	Location	Cost
ANEP Tech Transfer	2 to 3 staff	November 2023	Portland, OR	
EPA/ANEP Spring Mtg. WA. DC	2 to 3 staff	March 2024	Washington DC	\$15,000
Local Travel	Board/Staff	TBD	WA/OR	\$1512
			Subtotal (Yr. 1):	\$16,512
ANEP Tech Transfer	1 to 2 staff	Fall 2024	TBD	\$5000.00
EPA/ANEP Spring Mtg. WA DC	1 to 2 Staff	March 2025	Washington DC	10000
Local Travel	Board/Staff	TBD	WA/OR	1200
			Subtotal (Yr. 2):	\$ 16,200
			Total 7/1/23 to 6/30/25:	\$32,712

Table 3. Non-Federal Cost Share

	July 1, 2023 - June 30, 2024		July 1, 2024 - June 30, 2025		Total:
NonFederal Cost Share:	2024		30, 2025		
State of Oregon Restoration Funds - OWEB	\$ 165,000		\$ 165,000		\$ 330,000
Washington RCO Habitat Restoration Funds	\$ 685,333		\$ 685,333		\$ 1,370,666
Totals:	\$ 850,333		\$ 850,333		\$ 1,700,666