

Lower Columbia Estuary Partnership Comprehensive Long-Term BIL Workplan

May 1, 2022 – September 30, 2027



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Comprehensive Conservation and Management Plan Goals:

The Estuary Partnership Management Plan was developed from 1996 to 1999 using extensive scientific research, analysis, and historical data.¹ The 1999 Management Plan 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 Board of Directors updated specific actions (Chapter 5 of the 1999 Management Plan) in 2001, to set a new target for habitat restoration. In 2011 the CCMP was again updated to incorporate the nearly sixteen years of experience implementing the Management Plan, 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 direction for the region and provide specific targets. The Management Plan is a long-range regional plan; many actions need to be sustained for years to ensure the long-term health of the ecosystem. The Estuary Partnership builds on current efforts, provides a regional framework, develops new tools, and fill gaps in the science. The approach is intended to restore habitat while advancing science and improving river conditions as we learn.

Management Plan 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.

As in 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.

Management Plan 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 Plan implementation.

Proposed Project Types:

The Estuary Partnership proposed to focus on several broad project types during the life of the BIL funding, those project types include:

- **Habitat Restoration Projects:** These are projects of varying size and complexity that are intended to identify, protect, conserve, and enhance priority habitats throughout the estuary.
- **Water Trail Non-Motorized Boat Access and Infrastructure Projects:** These are projects focused on education and stewardship, with emphasis on improving public access to the river.
- **Stormwater and Green Infrastructure Projects:** These projects will implement a variety of project types intended to improve water quality and reduce contaminants.
- **Assessment and Monitoring:** These projects are intended to provide data on the status and trends of ecosystem conditions in the estuary; expand regional monitoring of toxic and conventional pollutants; and expand knowledge and understanding of the value of blue carbon in the estuary.

Timeline Estimates:

The Estuary Partnership will be including a mix of project types that also include projects that are multi-year, multi-funder projects as well as smaller projects that provide community or ecological benefits in a short amount of time.

Project:	Year 1	Year 2	Year 3	Year 4	Year 5
Restoration Projects		—	—	—	—▶
<i>Ridgefield Pits/Daybreak Pits</i>	—	—	—	—	—◆
<i>Water Trail Signage</i>	—◆		—◆		—◆
<i>Ridgefield Non-Motorized Boat Ramp Improvement Project</i>	—	—◆			
Water Trail Projects		—	—	—	—◆
<i>Upper Gibbons Creek Watershed Projects</i>	—	—	—	—◆	
<i>Clark County Urban Streams Project</i>	—	—	—	—	—▶
Stormwater and Green Infrastructure Projects			—	—	—▶
<i>Inventory of Carbon Sequestration Potential</i>	—	—	—	—	—▶
<i>Update Landcover Dataset</i>		—◆			
<i>HAB Assessment</i>			—◆		
<i>Mid-Columbia Restoration Inventory</i>				—◆	

Environmental Justice:

Special focus was given to projects that build resilient infrastructure and help combat the climate crisis, particularly within communities that meet or exceed the 80% percentile within any one or more of the thresholds listed below:

- Low life expectancy
- Low income, high and/or persistent poverty

- High unemployment and underemployment
- Less than high school education
- Linguistic isolation

In addition to the above parameters used to identify disadvantaged communities, geographic areas within Tribal jurisdictions are included.

While a full Justice 40 Integration Strategy will be included in this long-term BIL strategy by June 2023. At this time, the Estuary Partnership utilizes an analysis of the above listed thresholds using EJScreen to identify where our project work will have the most benefit to disadvantaged communities. Specific benefits will be identified within the individual project descriptions in the FY22 and subsequent year’s workplans, but generally we will focus on the following potential benefits:

- Increased technical assistance and community engagement of disadvantaged communities
- Increased floodplain mitigation benefits including
 - Acres of restored floodplain
 - Acres of restored wetlands
- Green stormwater infrastructure
- Community engagement and training
- Reclamation of abandoned mine lands
- Increase in community resilience to climate change

Inventory of Carbon Sequestration Potential

Across multiple phases, the **Inventory of Carbon Sequestration Potential** project will, in collaboration with Oregon Health Sciences University (OHSU), identify which habitat types found within the reference and restored wetland emit the most methane and/or store the most carbon.

The Project supports CCMP Actions:

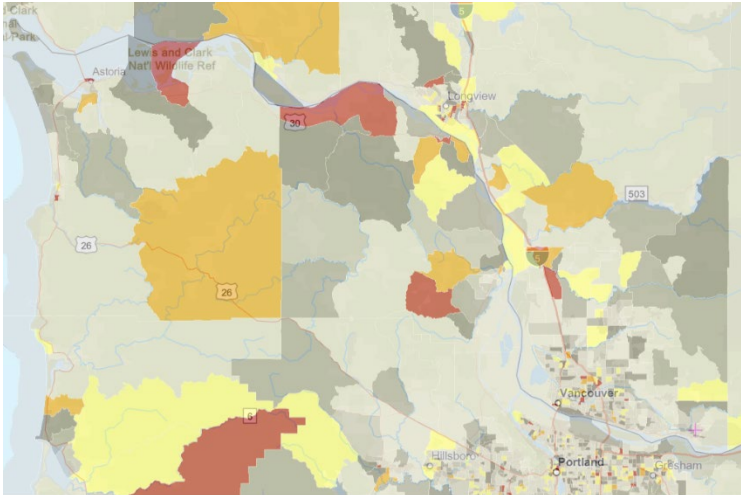
- Habitat Restoration Action 1
- Habitat Restoration Action 2
- Habitat Restoration Action 3
- Land Use Practices Action 9
- Education and Stewardship Action 13
- Regional Coordination and Synchronicity Action 17

The Project Support BIL/IIJA by:

- Assessing habitat types for carbon sequestration potential to address climate change and resilience and assist in regional climate adaptation approaches.
- The Project will be undertaken in the Lower Columbia River Estuary, which is home to more than 8 million people, including Native peoples of the Chinook, Wasco, Cowlitz, Yakama, and other Chinookan speaking peoples. The lower 146 miles of the river include the highly urbanized areas within the Longview Metropolitan Statistical Area and the Portland-Vancouver-Salem Combined

Statistical Area (US Census Bureau 2021)ⁱ as well as rural areas in the lower section of the Estuary. The result of the project will provide opportunities for increase climate resilience within a wide range of disadvantaged communities throughout the lower Columbia.

- The lower Columbia includes many disadvantaged areas including areas in the Longview,



WA/Rainier, OR area with linguistic isolation in the 82nd percentile as well as a population that is at the 92nd percentile for having less than a high school education. There are also significant areas of unemployment and underemployment, shown in the map to the left. The map includes the lower stretches of the river from the Portland-Vancouver area out through the mouth of the river at Astoria,

areas in red, orange, and yellow are all indicative of census tracts that are at or above the 80th percentile for unemployment.

Initial Projects – Year One & Year Two:

Project Information:

- **Project Name: Inventory of Carbon Sequestration Potential**
- **New Or Ongoing Project:** New Project
- **Program Capacity Needs to delivery BIL Supported Activities:**
 - Hiring 1 FTE Research Scientist
- **Brief Description:** Inventory of the carbon sequestration potential of reference and restored wetland habitats to identify which habitat types emit and/or store carbon and to what extent.
- **Leads, Partners, Roles:**
 - Dr. Sarah Kidd – Senior Scientist at the Estuary Partnership will lead the monitoring and research team which will include:
 - Sneha Rao Manohar – Research Scientist, Estuary Partnership
 - Ian Edgar – Research Scientist, Estuary Partnership
 - OHSU Staff to be determined
- **Opportunities for Coordination with other Key Stakeholders:**
 - OHSU – Research support
- **Anticipated Outputs or Deliverables:**
 - Monitoring infrastructure needed to assess the capture and release of methane within the estuary
 - Testing methods

- Assessment of carbon sequestration and methane release within the diverse habitats of the lower Columbia
- **Estimate Milestones:**
 - June 2023 – Installation of Eddy Flux Towers complete
 - June 2023 – Initial testing methods established
 - July 2023 - Begin data collection within reference habitats
 - July 2024 – Begin data collection in additional habitats
 - July 2025 – Develop inventory of potential carbon stores and methane releases across the lower river
- **Anticipated Long-Term Outcomes:**
 - Identification of carbon sequestration potential by wetland habitat types
 - Identification of habitats to target for preservation and/or restoration to increase carbon sequestration in the lower river
 - Increased technical assistance and community engagement of disadvantaged communities
- **How the Project Supports the Clean Water Act:**
 - This Project will support the maintenance and restoration of watersheds and ecosystems to protect human health, and to provide healthy habitat for fish, plants, and wildlife.
- **Estimated Budget:**
 - Total budget \$1,419,610.00
 - Year 1: \$338,264.00; Year 2: \$247,000.00; Year 3: \$262,076.00; Year 4: \$277,801.00; Year 5: \$294,469.00

Installation of Water Trail Signage

The Lower Columbia River Water Trail stretches for 146 miles from Bonneville Dam to the Pacific Ocean. The Trail features launch points, camping, and other opportunities to support the exploration of the lower river in non-motorized boats. The Project, to install Water Trail Signage, will establish a network of wayfinding infrastructure that serves to increase paddler safety, provide opportunities for increasing knowledge and awareness of the lower river ecosystems, and increase local pride of place for communities.

The Project supports CCMP Actions:

- Education and Stewardship Action 13
- Education and Stewardship Action 15

The Project Supports BIL/IIJA by:

- The Project will be undertaken in the Lower Columbia River Estuary, which is home to more than 8 million people, including Native peoples of the Chinook, Wasco, Cowlitz, Yakama, and other Chinookan speaking peoples.
- This project coordinates with multiple local governments including county and municipal governments, port districts, and private businesses, to identify and improve public access in the estuary through the installation of a system of Water Trail signage.

Project Information:

- **Project Name: Installation of Water Trail Signage**
- **New Or Ongoing Project:** Ongoing Project
- **Program Capacity Needs to deliver BIL Supported Activities:**
 - Hiring 1-2 limited duration positions leveraging existing relationships with regional BIPOC youth organizations
- **Brief Description:** This project will install a network of wayfinding and identification signage throughout the length of the lower Columbia Estuary.
- **Leads, Partners, Roles:**
 - Community Programs Team, Lower Columbia Estuary Partnership – Estuary Partnership team with extensive on-water experience and area familiarity with the Water Trail will install and maintain signage.
- **Opportunities for Coordination with other Key Stakeholders:**
 - River communities throughout the lower Columbia region
 - BIPOC organizations for development of summer, limited duration positions
- **Anticipated Outputs or Deliverables:**
 - 50-75 wayfinding markers installed throughout the lower river
 - Regular maintenance of signage and replacement where needed
- **Estimate Milestones:**
 - July through October 2022 – signage installed
 - July 2024 – visual survey of signage, maintenance completed
 - July 2027 – visual survey of signage, maintenance completed, any broken or missing markers replaced
- **Anticipated Long-Term Outcomes:**
 - Identification of landmarks on the lower river
 - Encourage increased use of the Water Trail and access to the river
 - Increased community connections to the estuary
- **How the Project Supports the Clean Water Act:**
 - This Project will support recreational activities and support human health and healthy ecosystems.
- **Estimated Budget:**
 - Total budget \$29,066.20
 - Year 1: \$19,066.20; Year 3: \$5,000; Year 5: \$5,000

Habitat Restoration: Ridgefield Pits/Daybreak Pits

The Ridgefield Pits/Daybreak Pits habitat restoration project represents a major habitat restoration project in a watershed that has already been impacted by significant habitat degradation and loss from urbanization and surface mining activities. The East Fork Lewis River and its tributaries are on Washington State’s impaired waters list for warm water temperatures and bacteria pollution problems.ⁱⁱ The project, which will be a highly collaborative project supported by multiple funding sources, will work to complete final design and permitting; focus on outreach, stakeholder, and political support; and culminate in construction in 2024/25.

The Project supports CCMP Actions:

- Habitat Restoration Action 2
- Habitat Restoration Action 6
- Land Use Action 8
- Land Use Action 9
- Education and Stewardship Action 13
- Education and Stewardship Action 14
- Education and Stewardship Action 15

The Project Supports BIL/IIJA by:

- The Project will be undertaken in the East Fork Lewis River a tributary to the Columbia River.
- Census blocks along the north side of the project site are above the 80th percentile for unemployment, while blocks directly to the west sit well above the 90th percentile including one block that is at the 97th percentile or 20% actual rate of unemployment.
- The Project will create jobs related to construction and habitat restoration.
- The Project will help combat the climate crisis by restoring healthy habitat that multiple listed species of fish utilize and by restoring a natural floodplain that will provide increased climate resilience for human communities, as well.

Project Information:

- **Project Name: Ridgefield Pits/Daybreak Pits Habitat Restoration**
- **New Or Ongoing Project:** New Project
- **Brief Description:** This is a large habitat restoration project that will restore portions of the East Fork Lewis River that shifted during flood conditions to run through several surface mines. The Project will include funding from multiple sources, BIL/IIJA funds will provide support for design, permitting, construction, community outreach and education, and partnership with members of the Cowlitz, Chinook, and other indigenous peoples with connections to the East Fork Lewis River.
- **Leads, Partners, Roles:**
 - Chris Collins and Paul Kolp, Estuary Partnership Habitat Restoration Leads, will serve as Project Managers.
 - Interfluve will be contracted to complete engineering and design
 - Other potential funders and partners include Clark County, WA; WA Department of Ecology; Lower Columbia Fish Recover Board (LCFRB); WA Recreation and Conservation Office (RCO); Clark County PUD; WA Department of Fish and Wildlife; neighboring landowners; and industrial landowners.
- **Opportunities for Potential Coordination with other Key Stakeholder Groups:**
 - Cowlitz Indian Tribe
 - Chinook Nation
 - Lower Columbia Fish Recovery Board
 - Washington State Department of Ecology – Floodplains by Design
 - Washington Recreation and Conservation Office

- Clark County Clean Water Commission
- East Fork community groups
- **Anticipated Outputs or Deliverables:**
 - Restoration of X miles of river
 - Number of jobs created
 - Number of outreach meetings hosted
 - Number of trees planted
 - Number of participants in community environmental education opportunities
- **Estimate Milestones:**
 - July 2022 through July 2023 – Focus on outreach, stakeholder, and political support, permitting, and design
 - July 2023 through 2024 – Complete permitting and design work
 - July 2024 through July 2026 – Construction and revegetation
- **Anticipated Long-Term Outcomes:**
 - Improved habitat conditions for fish, wildlife, and people
 - Improved water quality
 - Improved floodplain function
- **How the Project Supports the Clean Water Act:**
 - This Project will support the maintenance and restoration of watersheds and ecosystems to protect human health, and to provide healthy habitat for fish, plants, and wildlife.
- **Estimated Budget:**
 - Total budget \$692,275.00
 - Year 1: \$237,654.50; Year 2: \$154,621.00; Year 3: \$100,000; Year 4: \$100,000; Year 5: \$100,000

Ridgefield Non-Motorized Boat Ramp Improvement Project

The Ridgefield Non-Motorized Boat Ramp Improvement Project will improve public access to the estuary with improved access to Lake River, a tributary to the Columbia. This is a public access point to the Lower Columbia River Water Trail

The Project supports CCMP Actions:

- Land Use Action 9
- Education and Stewardship Action 13
- Education and Stewardship Action 14
- Education and Stewardship Action 15
- Regional Coordination and Synchronicity Action 16
- Regional Coordination and Synchronicity Action 17

The Project Supports BIL/IIJA by:

- The Project will create jobs related to construction and public access to the estuary.

- The Project will help create improved Water Trail infrastructure in a disadvantaged, rural community. Census tracts to the south of the project area are above the 80th percentile for linguistic isolation, while the project is within a census tract that is between 70th and 80th percentile. The area is also disproportionately impacted by poor air quality and is in the 83rd percentile for air toxics cancer risk.

Project Information:

- **Project Name: Ridgefield Non-Motorized Boat Ramp Improvement Project**
- **New Or Ongoing Project:** Ongoing Project
- **Brief Description:** This project builds upon existing partnerships with the Port and City of Ridgefield, to create increased opportunities for non-motorized boat access to the estuary and the Water Trail. BIL/IIJA funds will support design, permitting, outreach, and construction of the project.
- **Leads, Partners, Roles:**
 - Chris Hathaway, Community Programs Director, will serve as Project Manager
- **Opportunities for Potential Coordination with other Key Stakeholders:**
 - City of Ridgefield
 - Port of Ridgefield
 - State of Washington – ECY and/or RCO
 - Local community groups
- **Anticipated Outputs or Deliverables:**
 - Construction of non-motorized boat access point
 - Number of community members engaged during outreach meetings.
 - Number of participants in outreach meetings
- **Estimate Milestones:**
 - July 2022 through July 2023– Completion of engineering, design, permitting, and construction
- **Anticipated Long-Term Outcomes:**
 - Improved public access
- **How the Project Supports the Clean Water Act:**
 - This Project will support recreational activities and support human health and healthy ecosystems.
- **Estimated Budget:**
 - Total budget \$57,073.40
 - Year 1: \$57,073.40 (anticipate project completion within Year 1)

Upper Gibbons Creek Watershed Consolidated Projects

The Upper Gibbons Creek Watershed Consolidated Projects represent a cross functional approach to complete a series of collaborative projects including construction of stormwater infiltration infrastructure, habitat restoration, riparian planting, and other water quality improvements to increase climate resilience, restore habitat, and engage community members.

The Project supports CCMP Actions:

- Land Use Action 8
- Land Use Action 9
- Water Quality and Contaminant Reduction Action 11
- Water Quality and Contaminant Reduction Action 12
- Education and Stewardship Action 13
- Education and Stewardship Action 14
- Education and Stewardship Action 15
- Regional Coordination and Synchronicity Action 16

The Project Supports BIL/IIJA by:

- The Project will create jobs related to construction and public access to the estuary.
- The Project will help improve climate resilience for the community and improve habitat for multiple listed species in Gibbons Creek.

Project Information:

- **Project Name: Upper Gibbons Creek Watershed Consolidated Projects**
- **New Or Ongoing Project:** New Project
- **Brief Description:** This project will see a variety of cross functional and collaborative projects including construction of stormwater infrastructure to address urban runoff, habitat restoration, riparian planting, and community education, in the upper Gibbons Creek watershed.
- **Leads, Partners, Roles:**
 - Chris Hathaway, Community Programs Director, will lead Stormwater and Community Programs work on the Project.
 - Jenny Dezso and Curtis Helm, Restoration Ecologists, will lead the Restoration Team work on the project.
 - Wolf Water Resources will complete engineering and design of components of the project.
 - Juncus Studio will complete landscape architecture services for the project
 - Additional contractors and consultants will be engaged to complete other design components, permitting, surveys, engineering, and construction.
 - Partners are anticipated to include the Washougal School District, the City of Washougal, WA Department of Ecology, private landowners, and businesses in the project area.
- **Opportunities for Potential Coordination with other Key Stakeholders:**
 - Chinook Nation
 - Cowlitz Indian Tribe
 - City of Washougal
 - Washougal School District
 - Local community groups
- **Anticipated Outputs or Deliverables:**
 - Construction of stormwater facilities
 - Completion of habitat and riparian restoration
 - Number of outreach meetings hosted

- Number of community members that attend environmental education or volunteer opportunities
- **Estimate Milestones:**
 - July 2022 through July 2023– Completion of engineering, design, permitting, potential early construction on stormwater components
 - July 2023 through July 2024 – construction of habitat restoration components
 - July 2024 through July 2025 – complete construction, revegetation, and riparian planting
- **Anticipated Long-Term Outcomes:**
 - Improved public access
 - Improved water quality
- **How the Project Supports the Clean Water Act:**
 - This Project will support the maintenance and restoration of watersheds and ecosystems to protect human health, and to provide healthy habitat for fish, plants, and wildlife
- **Estimated Budget:**
 - Total budget \$384,950
 - Year 1: \$157,470.90; Year 2: \$152,480.00; Year 3: \$45,000; Year 4: \$30,000

Clark County Urban Streams Project

The Clark County Urban Streams Project will include a variety of collaborative projects on Burnt Bridge and Salmon creeks in Clark County. The projects will include a variety of riparian planting and community engagement and education work to increase climate resilience, restore habitat, and engage community members.

The Project supports CCMP Actions:

- Land Use Action 8
- Water Quality and Contaminant Reduction Action 11
- Water Quality and Contaminate Reduction Action 12
- Education and Stewardship Action 13
- Education and Stewardship Action 14
- Education and Stewardship Action 15
- Regional Coordination and Synchronicity Action 16

The Project Supports BIL/IJA by:

- The Project will create jobs related to construction.
- The Project will help improve climate resilience for a disadvantaged community impacted by high rates of unemployment and linguistic isolation. Portions of the area of Vancouver where the two project sites are located are above the 80th percentile for unemployment, while neighboring census tracts see unemployment over the 90th percentile (93rd and 98th percentiles). Linguistic isolation neighboring Burnt Bridge Creek is above the 80th percentile.

Project Information:

- **Project Name: Clark County Urban Streams Project**
- **New Or Ongoing Project:** Ongoing Project
- **Brief Description:** This project combines two streams that have been ongoing sites for riparian restoration in the Vancouver Metropolitan Area. The project will expand the riparian planting and community outreach components in both creeks, and fund assessments to evaluate other potential restoration efforts.
- **Leads, Partners, Roles:**
 - Chris Hathaway, Community Programs Director, will lead Stormwater and Community Programs work on the Project.
- **Anticipated Outputs or Deliverables:**
 - Completion of habitat and riparian restoration – including number of acres restored/planted and number of trees planted
 - Number of outreach meetings hosted
 - Number of community members that attend environmental education or volunteer opportunities
- **Estimate Milestones:**
 - July 2022 through July 2027– Riparian planting, revegetation and maintenance, community engagement and education, assessment of additional activities
- **Anticipated Long-Term Outcomes:**
 - Improved public access
 - Improved water quality
 - Improved climate resilience
- **How the Project Supports the Clean Water Act:**
 - This Project will support the maintenance and restoration of watersheds and ecosystems to protect human health, and to provide healthy habitat for fish, plants, and wildlife.
- **Estimated Budget:**
 - Total budget \$225,000
 - Year 1: \$25,000; Year 2 through Year 5: \$50,000 each year.

Anticipated Additional Projects Years 2 through 5:

- **Updated Landcover Dataset** – this project will update the landcover dataset previously completed in 2009 and provide an updated analysis of the status and trends in the ecosystem.
 - Total budget is \$75,000
- **Water Trail Non-Motorized Boat Access and Infrastructure** – a variety of projects similar to those undertaken in Year 1 that saw improved Water Trail Infrastructure such as wayfinding and public access points. Projects during years 2 through 5 may also include camping facilities and other marina improvements for non-motorized boaters.
 - Total budget is \$150,000.
- **Restoration Project Funding** – a variety of habitat restoration projects to improve habitat for fish, wildlife, and people, and improve climate resilience.

- Total budget is \$560,000
- Stormwater and Green Infrastructure funding – a variety of stormwater and infrastructure projects to increase climate resilience and improve water quality.
 - Total budget is \$450,000
- Habitat Assessment – This project will map locations and dynamics of toxin-producing blooms, including rack line and die-back, mapping of blooms will be completed from a boat and drone when possible, and will include grab samples, and completion of preliminary lab analysis.
 - Total budget is \$75,000
 - Partnership with OHSU
- Mid-Columbia Restoration Inventory – this project will complete and assessment and mapping of potential restoration projects above Bonneville Dam. Anticipate partnering with area tribes, USGS, and others.
 - Total budget is \$50,000

BIL/IIJA – Spending Strategy Outline

BIL Project	Year One: 5/1/22 to 9/30/22	Year Two: 10/1/22 to 9/30/22	Year Three: 10/1/23 to 9/30/24	Year Four: 10/1/24 to 9/30/25	Year Five: 10/1/25 to 9/30/26	Totals:
Restoration Projects:						
Ridgefield Pits/Daybreak Pits						
Subtotal:	\$230,654.50	\$153,500.00	\$100,000.00	\$100,000.00	\$100,000.00	\$684,154.50
Restoration Projects						
Subtotal:	\$0.00	\$104,500.00	\$94,500.00	\$144,500.00	\$194,500.00	\$538,000.00
Upper Gibbons Creek Watershed Consolidated Projects						
Subtotal:	\$155,970.90	\$152,480.00	\$45,000.00	\$30,000.00	\$0.00	\$383,450.90
Clark County Urban Streams Project						
Subtotal:	\$25,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$225,000.00
Total Watershed Restoration Projects:	\$411,625.40	\$460,480.00	\$289,500.00	\$324,500.00	\$344,500.00	\$1,830,605.40
Water Trail Non-Motorized Boat Access and Infrastructure:						
Water Trail Signage						
Subtotal:	\$19,066.20	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$29,066.20
Ridgefield Non-Motorized Boat Ramp Improvement Project						
Subtotal:	\$57,073.40	\$0.00	\$0.00	\$0.00	\$0.00	\$57,073.40
Water Trail Projects:						
Subtotal:	\$0.00	\$45,000.00	\$45,000.00	\$23,000.00	\$23,000.00	\$136,000.00
Total Water Trail Projects:	\$76,139.60	\$45,000.00	\$50,000.00	\$23,000.00	\$28,000.00	\$222,139.60
Stormwater and Green Infrastructure Projects:						
Stormwater and Green Infrastructure Projects:						
Total Stormwater and Green Infrastructure Projects:	\$0.00	\$0.00	\$150,000.00	\$150,000.00	\$150,000.00	\$450,000.00
Assessment and Monitoring:						
Inventory of Carbon Sequestration Potential						
Subtotal:	\$338,246.00	\$247,000.00	\$262,076.00	\$277,801.00	\$294,469.00	\$1,419,592.00
Update Landcover Dataset						\$0.00
Subtotal:	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.00	\$75,000.00
HAB Assessment						\$0.00
Subtotal:	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$75,000.00
Mid Columbia Restoration Inventory						\$0.00
Subtotal:	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$50,000.00
Subtotal Assessment & Monitoring Projects:	\$338,246.00	\$322,000.00	\$337,076.00	\$327,801.00	\$294,469.00	\$1,619,592.00
Subtotal All Projects:	\$826,011.00	\$827,480.00	\$826,576.00	\$825,301.00	\$816,969.00	\$4,122,337.00
Indirect	\$82,601.10	\$82,748.00	\$82,657.60	\$82,530.10	\$81,696.90	\$412,233.70
Total:	\$908,612.10	\$910,228.00	\$909,233.60	\$907,831.10	\$898,665.90	\$4,534,570.70

ⁱ <https://www.census.gov/geographies/reference-maps/2020/demo/state-maps.html>

ⁱⁱ <https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Total-Maximum-Daily-Load-process/Directory-of-improvement-projects/East-Fork-Lewis-River>