

# Aquatic Species Restoration Plan

## Project Implementation Cover Sheet

### Project Contact Information

Sponsor Name:

Contact Person:

Email:

Phone Number:

Mailing Address:

### Project Information

Project Address (main access):

Project Parcels:

Project GPS Coordinates (main access location):

Have participating landowners signed a landowner acknowledgement form? Yes  No

Priority Geospatial Unit:

Other Geospatial Unit:

If your project is not located within an Aquatic Species Restoration Plan (ASRP) priority geospatial unit (GSU), please provide a description of how your project will directly benefit an ASRP priority GSU or ASRP focal species.

# Initial Site Assessment Template

## Project Overview

Which priority GSU is this project in?

Which top three limiting factors are prioritized in this GSU?

What restoration/protection actions are emphasized for this GSU?

How do the actions you propose specifically address the limiting factor(s) identified above? How effective are those actions likely to be in addressing the limiting factors (local scale vs. GSU scale)?

Is (are) the landowner(s) interested and willing to participate? Yes  No

Is (are) the landowner(s) interested in an acquisition or easement? Yes  No

## Background Information

*Using available GIS and published data (example data source links provided for each subsection), provide brief information to address each of the following major ecosystem topics. This information is important to help project reviewers and participants understand the key watershed issues and how feasible your project is to address the identified limiting factors and achieve ASRP goals.*

### Sub-Basin Overview

Ecoregion:

Dominant land uses (OCB webmaps, aerial, landcover, parcels, zoning):

Known aquatic species presence (ASRP document, Salmonscape, Endangered Species Act map):

Which ASRP focal species will your proposal specifically address (can be more than one species)?

## Hydrology

Describe hydrologic conditions and issues within the GSU and sub-basin. For example, are low flows a concern, or are high flows or scour a concern? *Gage data may be obtained from <https://waterdata.usgs.gov/wa/nwis/rt>.*

## Geology/Soils

Would any special conditions affect opportunities? Yes  No

What is the underlying geology in the GSU that may contribute to special conditions or denote specific sediment or geomorphologic conditions? ([Washington Geologic Information Portal](#))

What are the primary soils on your project site and would they affect project actions? For example, is erosion a concern and are soils easily erodible?

(<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)

### *Floodplains*

Is your project site within a mapped floodway or floodplain? *Attach floodplain map or screenshot for your project site* (<https://msc.fema.gov/portal/home>). Yes  No

Are there houses, structures, or infrastructure on or adjacent to your project site that could be affected by or constrain your proposed actions in the floodway or floodplain? Are there opportunities to work with adjacent landowners to reduce constraints? *Provide a brief description.*

### *Water Quality*

Is your project site in an area listed for impaired water quality?

(<https://apps.ecology.wa.gov/waterqualityatlas/wqa/proposedassessment>) Yes  No

Is water temperature or other water quality concerns a limiting factor for aquatic species at your project site? Yes  No

Would actions taken at your project site ameliorate water quality concerns at your project site (local scale) and/or contribute to ameliorating water quality conditions at a larger scale (e.g., at the GSU scale)?

## Site Conditions from Initial Site Assessment

### *Geomorphology*

Identify geomorphic conditions in your project area (such as past or recent avulsions, bank armor, levees, evidence of bed incision or sediment aggradation, or large wood deposition) and how substantial and/or widespread these conditions are within the reach.



How would your proposed actions restore natural geomorphic processes in the reach, and what constraints might affect their effectiveness (e.g., existing levees or bank armoring that is protecting structures or infrastructure; ongoing land uses)? *Attach photographs.*



## *Habitat Conditions*

### **Aquatic**

Describe the general stream habitat characteristics of your project reach (e.g., pools, riffles, glides, side-channels, oxbows, or presence of large wood). Describe how your actions would increase habitat quantity and quality within the project reach.

### **Riparian**

Describe the riparian conditions of your project reach (e.g., generally forested with deciduous trees such as alder and big-leaf maple ranging from 12 to 24 inches in diameter). Describe how your actions would increase riparian quantity and quality and contribute to riparian processes.

### **Barriers**

Are there fish passage barriers within your project reach? If so, explain. Describe if your actions would address fish passage barriers within the project reach. Yes  No

## Opportunities/Concept Plan

Describe proposed restoration actions with a narrative on which actions are most important and why. *Attach an aerial map with parcels and project area outlined with concept features (can be circles with callouts indicating project features).*



## Which ASRP Goals Does Your Project Address?

Protect and restore natural habitat-forming processes within the Chehalis Basin watershed context.

- Protect and restore natural riverine processes including channel migration, sediment and wood transport, and floodplain connectivity.
- Protect and restore riparian processes and functions including cover, shade, inputs of large wood, leaf litter and insect inputs to the aquatic food web, sediment and erosion functions, nutrient and pollutant trapping and filtering, and floodplain processes.

Increase the quality and quantity of habitats for aquatic species in priority areas within the Chehalis Basin.

- Significantly increase quality of and access to instream habitat for aquatic species (including habitat needs for migration, reproduction, rearing/feeding, and overwintering habitats).
- Protect and enhance existing functioning core habitats for species across their life history trajectories.
- Increase habitat complexity and diversity.
- Protect and restore native riparian, floodplain, off-channel, and wetland habitats.
- Minimize suitability for invasive species within instream and riparian habitats.

Protect and restore aquatic species viability within and across the Chehalis Basin considering viable species population parameters.

Increase watershed resiliency to climate change by protecting and improving natural water quantity, timing characteristics, and water quality characteristics.

## **Budget Narrative**

Provide an overall narrative of what you are requesting funding for (e.g., design only, design and construction, construction only) and provide an explanation of how the costs were derived.



## Initial Cost Estimate

Fill in proposed project design and/or construction or acquisition costs. If design is included, please state to what level of design you are proposing (conceptual, preliminary, final) and provide a more detailed explanation of design costs.

### ASRP Reach-Scale Project Concept Level Cost Estimate

Construction	Unit	Unit Cost	Type	Number	Subtotal
Engineered Log Jams	Each				
Beaver Dam Analogs	Each				
Large Wood (Single Pieces)	Each				
Riparian Restoration	Acre				
Floodplain Reconnection	Linear Feet				
Oxbow or Side-Channel Reconnection	Linear Feet				
Wetland Restoration	Acre				
Invasive Species Management	Acre				
Other (please explain):					
<b>Removals or Relocations</b>	Each				
<b>Acquisition or Easement</b>	Acre				
<b>Subtotal Construction</b>					
<b>Design<sup>1</sup></b>	Lump Sum	N/A	N/A	N/A	
<b>Permitting<sup>2</sup></b>	Lump Sum	N/A	N/A	N/A	
<b>Management<sup>3</sup></b>	Lump Sum	N/A	N/A	N/A	
<b>Other (please explain):</b>					
<b>Contingency<sup>4</sup></b>	Lump Sum	N/A	N/A	N/A	
<b>Tax</b>					
<b>Total</b>					

Notes:

1. Design is typically 10% to 15% of construction costs (less for planting or invasives treatment projects).
2. Permitting is typically 5% to 10% of construction costs (less for planting or invasives treatment projects).
3. Management includes sponsor management and construction management and is typically 10% to-15% of construction costs.
4. Contingency at the early project stage is typically 25% to 30%.

# Attachment A

## Geospatial Unit Table

Ecological Region	Near-Term Priority GSUs	Mid-Term Priority GSUs	Long-Term Priority GSUs
Grays Harbor Tribes	Middle Humptulips MS GSU	Lower Humptulips MS GSU	Stevens GSU
		EF Humptulips MS GSU	Elk R GSU
		WF Humptulips MS GSU	Johns GSU
		Big (Hump) GSU	EF Hoquiam MS GSU
		Upper Wishkah MS GSU	Lower Wishkah MS GSU
		EF Wishkah MS GSU	WF Wishkah MS GSU
Olympic Mountains	Lower Satsop MS GSU	Lower MF Satsop MS GSU	Upper MF Satsop Tribes GSU
	Lower EF Satsop MS GSU	Lower WF Satsop MS GSU	Upper WF Satsop Tribes GSU
	Decker GSU	Upper WF Satsop MS GSU	Upper EF Satsop Tribes GSU
	Bingham GSU	Upper MF Satsop MS GSU	Canyon R GSU
	Dry Run GSU	Lower WF Satsop Tribes GSU	Lower Wynoochee Tribes GSU (Wedekind, Mooney Creeks)
	Upper EF Satsop MS GSU	Lower Wynoochee MS GSU	Black (Wyn) GSU
	Middle Wynoochee MS GSU		Shaffer GSU
	Middle Wynoochee Tribes GSU (Anderson and Helm Creeks)		
Black Hills	Cloquallum GSU	Mox Chehalis GSU	N/A
		Porter GSU	
		Cedar GSU	
Black River	Scatter GSU	Lower Black MS GSU	N/A
		Upper Black MS GSU	
	Beaver GSU	Lower Black Tribes GSU (Mima Creek)	
		Dempsey GSU	
	Waddell GSU		
Central Lowlands	N/A	Lincoln GSU	Garrard GSU
		Bunker GSU	Rock (CL) GSU
			Delzene GSU
			Independence GSU

Ecological Region	Near-Term Priority GSUs	Mid-Term Priority GSUs	Long-Term Priority GSUs
Cascade Mountains	Lower Skookumchuck MS GSU	Hanaford GSU	Skookumchuck Tribs GSU (Johnson and Thompson Creeks)
	Lower Newaukum MS GSU	SF Newaukum Tribs GSU (Kearney, Beaver, Bernier Creeks)	
	SF Newaukum MS GSU	Stearns GSU	
	NF Newaukum MS GSU		
Willapa Hills	Elk Cr GSU	Thrash GSU	Lake GSU
	Chehalis Abv Crim MS GSU		
	Chehalis RB Falls to Crim MS GSU		
	EF Chehalis MS GSU		
	WF Chehalis MS GSU		
	Crim GSU		
	Big (WH) GSU		
	Rock GSU		
	Roger GSU		
	Alder GSU		
	Mack GSU		
	Stowe GSU		
	Willapa Hills Tribs GSU		
	Stillman GSU		
	Lower SF Chehalis MS GSU		
Upper SF Chehalis MS GSU			
Estuary	Tidal Zone GSU	Grays Harbor Shoreline GSU	
Middle Chehalis	N/A	Middle Chehalis: SF to Rainbow Falls GSU	Middle Chehalis: Newaukum to SF GSU
			Middle Chehalis: Skook to Newaukum GSU
Lower Chehalis	N/A	N/A	Lower Chehalis: Satsop to Porter GSU
			Lower Chehalis: Porter to Black GSU
			Lower Chehalis: Black to Skook GSU

Note:

Blue GSUs are intended for coastal tailed frog-focused restoration, including headwater stream riparian enhancement, limited wood placement, and groundwater recharge.