

# AQUATIC SPECIES RESTORATION PLAN

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## APPLICATION B: GENERAL PROJECT PROPOSAL APPLICATION

Project Title	
Satsop River Mile 2.5-5.0 ASRP Design Project	
Sponsor Contact Information	
Project Contact Information	Complete all Sections
Name	Anthony Waldrop
Phone Number	360-249-8532
Email	<a href="mailto:Anthony.waldrop@graysharborcd.org">Anthony.waldrop@graysharborcd.org</a>
Sponsoring organization	Grays Harbor Conservation District
Mailing address	330 W. Pioneer Ave. Suite D Montesano, WA, 98563

Project Activities	
<input checked="" type="checkbox"/>	Design Only
<input type="checkbox"/>	Restoration <ul style="list-style-type: none"><li>- Construction</li><li>- Innovative Restoration</li></ul>
<input type="checkbox"/>	Acquisition
<input type="checkbox"/>	Combined (Design/Construction/Acquisition)

### Project Information:

- **Project location.**

The project is located on the lower main-stem of the Satsop River upstream of the Monte-Elma Road bridge.

- **Project extent.**

Approximately 2.5 miles of the main-stem Satsop River from about river mile 2.5 to RM 5.0, including both in-stream and riparian environments. Additional willing landowners could extend the design reach.

- **Geographic Spatial Unit (GSU).**

### 31. Lower Satsop River

- **Brief project summary.**

The main-stem Lower Satsop River provides vital habitat for migrating, spawning, and rearing salmonids as well as other aquatic species. For the main-stem Satsop from river mile 2.5 to 5.0, one landowner family (Gleason Skok LLC and Bailey) owns a majority of the land (see map attached). One of the representatives of this family, Tracey Baker, was involved in early conceptual project planning for the ASRP Early Action Reaches, but ultimately the East Fork Satsop RM 8 - 11 reach was selected to move forward with design. However, the Baker family is still interested in an ASRP type and are willing to support and participate in reach-scale project design. This project proposes building on the conceptual design work already completed for this reach by developing permit ready preliminary designs so that the project is ready to seek final design and construction funding. The project will also involve a project development phase that will conduct outreach to landowners adjacent to the main landowner family in order to seek to extend design development to the Monte-Elma bridge thereby capitalizing on the investment that Grays Harbor County and the Chehalis Basin Flood Authority have put into Lower Satsop flood hazard reduction and habitat efforts. This project is in an immediate priority area (Satsop) and implements immediate priority actions (cold water holding pool enhancement; riparian plantings; removal of invasive species; design-ready reach scale projects that will build on or expand benefits of previous restoration efforts) as identified by the Phase 1 ASRP (ASRP Section 6, Table 6-2).

### Problems statement.

#### A. Describe the problem (critical need and/or threat), your project aims to address.

This reach has a lack of stable in-stream large woody debris and low potential for functional large wood recruitment due to erosion occurring through pastureland and young, deciduous riparian forest<sup>1</sup>. The area of pasture that is currently eroding had an over 250' riparian tree buffer that has eroded away over the past 25 years. Without an established mature riparian forest and stable in-stream wood, this reach exhibits a lack of stable stream banks for riparian forest development, a lack of stable scour pools and a lack of adequate in-stream cover, important habitat elements for migrating and rearing fish. Significant bedload is mobilized through this reach, reducing the stability of spawning gravel. In areas of this reach where riparian forest is present, it is largely made up of deciduous species (cottonwood and alder), with a lack of conifer succession. Invasive species such as blackberry and knotweed prevent the establishment of native riparian species. These issues are similar to the following problems identified for the Olympic Mountains Ecological Region: Lack of large wood and stable gravel; higher than natural rates of channel migration; poor riparian conditions, excessive channel widths, and a lack of shade from established riparian forest; reduced floodplain connectivity due to incision (ASRP pgs. 157-167).

#### B. List the species present at the site and addressed by your project. Describe how your project protects or restores habitat for these species.

COMMON NAME	Scientific Name
Chinook Salmon	<i>Oncorhynchus tshawytscha</i>
Chum Salmon	<i>Oncorhynchus keta</i>
Coho Salmon	<i>Oncorhynchus kisutch</i>
Steelhead	<i>Oncorhynchus mykiss</i>

<sup>1</sup> Soden, J., O'neal, J., Dickerson-Lange, S. ASRP Early Action Reaches – Satsop River Alternatives Analysis. 2019. Natural Systems Design. (available upon request)

Pacific Lamprey	<i>Lampetra tridentata</i>
Speckled Dace	<i>Rhinichthys osculus</i>
Largescale sucker	<i>Catostomus macrocheilus</i>

The main-stem Satsop in this reach is used by various salmonid species and other aquatic species that live in the Satsop River watershed. According to the ASRP, salmon use includes fall-run Chinook, chum, coho, and steelhead. Other fish usage includes pacific lamprey, speckled dace, and largescale sucker. Summer rearing is most likely limited in this reach due to higher water temperatures this far down in the watershed. Recent research shows that suitable summer rearing habitat in the Satsop decreases the further downstream, and the further from the cold water influence of the East Fork Satsop<sup>2</sup>. Winter rearing is likely in this reach, but off-channel habitat is limited. Therefore, this project will restore habitat through the installation of engineered log jams (ELJs) and riparian forest enhancement (plantings/invasive treatments), which will stabilize and sort sediment (ELJs), increase flow refugia (side-channel engagement/floodplain reconnection by ELJs, velocity disruption around ELJs), increase/stabilize deeper pools (ELJ scour pools), increase in-stream woody debris cover, decrease stream temperatures (shade, groundwater recharge through floodplain reconnection), and increase the future potential of large woody debris recruitment (riparian forest enhancement). ELJ placement and riparian forest re-establishment will be designed to contribute to the ASRP goal of encouraging long-term aquatic habitat formation and ecosystem processes.

**C. Describe how your project will address limiting factors and benefit limiting life stages (by species) (Chapter 3 ASRP).**

The project design will include elements such as engineered log jams (ELJs) and riparian enhancement (invasive treatments/plantings). The strategic placement of ELJ structures will serve hydraulic and geomorphological functions that will address limiting factors for a number of species included in the ASRP. Low habitat diversity, high water temperatures, and reduced quantity/quality of instream habitats are identified limiting factors for the Olympic Mountains Ecological Region and were identified in this reach during Early Action Reach project analysis. Strategic placement of ELJs will re-engage side channels, connect floodplains at lower flows, create colder temperature scour holes, provide flow refugia, reduce erosion, and increase in-stream cover. This increased habitat diversity will benefit coho, steelhead, and fall chinook rearing/migration (food, cover, more habitat, flow refugia) (ASRP pgs. 27-29), pacific lamprey holding in deep pools and rearing in slow-velocity habitats (ASRP pg. 30), speckled dace large wood habitat cover (ASRP pg. 30), and largescale sucker access to deeper pools (ASRP pg. 30). ELJs will also stabilize and sort in-stream sediments which will benefit the spawning life stage of Satsop fall chum, fall Chinook, steelhead, and coho (ASRP pgs. 27-29). Riparian plantings and ELJs along the eroding pasturelands will reduce erosion and therefore the potential for sediment inputs that can impact spawning gravels and overall water quality. Riparian forest enhancement will eventually provide a cooling effect on water temperature (through increased shade), benefiting fall Chinook, coho, and steelhead, which are sensitive to high stream temperatures during summer rearing and migration (ASRP pgs. 27-29). Riparian forest plantings will contribute to long term recruitment of large woody debris, which will serve to maintain the aforementioned functions of the ELJs.

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<sup>2</sup> Winkowski, J.J., E.J. Walther, and M.S. Zimmerman. 2018. Summer riverscape patterns of fish, habitat, and temperature across the Chehalis River basin. Washington Department of Fish and Wildlife. Olympia, Washington. FPT 18-01.

**D. Describe how your project protects or restores ecosystem processes.**

Key ecosystem processes that are impaired in this reach are: large wood presence/recruitment, floodplain connection, sediment sorting/retention, and natural channel migration rates. This project's design will involve installation of ELJs throughout the reach, which will reduce bank erosion to more natural rates, allowing for riparian trees to establish and mature to sizes that contribute to large wood recruitment. Side channels in the reach that are dry during most flow periods will be engaged at lower flows through the placement of ELJs. Gravel and fine sediment being transported through the reach will be retained and sorted by ELJs, increasing the probability of developing in-stream islands and multi-threaded channels. This project will set the reach on a trajectory towards self-sustaining river processes that provide the complex habitat and ecosystem functions of a large alluvial floodplain river such as the Satsop.

As stated in the 2019 ASRP Early Action Reaches – Satsop River Alternatives Analysis, this reach offers opportunities to increase the duration and quantity of streamflow in a variety of existing side channel habitats, while increasing channel stability by reducing areas of rapid bank erosion. Restoration actions developed during Early Action Reach analysis would increase instream habitat complexity and restore coniferous forest in riparian areas of existing pasture lands and young deciduous communities. From the bridge at RM 2.5 to the meander at RM 4.5, the river has experienced rapid channel migration through pasture and young forested floodplain lands, and presents a relative low quality of instream and floodplain habitats. The primary restoration approach in this lower reach would include the installation of engineered log jams instream to promote flow deflection into existing lower floodplain side channel habitats. A sequence of engineered log jams would also be installed between RM 3.5 and 3.7 on river right to slow bank migration and protect a large riparian planting project that would convert existing pasture to forested riparian habitats. Conifer underplanting and invasive species management would also be applied within existing forested floodplain areas to promote succession of deciduous forest to sitka spruce-dominated conifer forest. Furthermore, this project is spatially located between two other reach scale restoration projects in the Satsop River watershed (Satsop RM 0-2 and Satsop RM 8-11). Thus, successful implementation of this project will create a sequence of quality aquatic species habitats in about 8 of 11 Satsop main-stem river miles.

**Project goals and objectives.**

**E. What are your project's goals?**

The goal of this project is to create a design that will restore the impaired aquatic ecosystem processes (lack of large wood, lack of large wood recruitment, floodplain disconnection, sediment instability, and high channel migration rates) of the main-stem Satsop from river mile 2.5 to 5 by adding in-stream structure using engineered log jams, and providing for the long term recruitment of woody material with riparian forest planting/enhancement. Restoring these processes will increase habitat complexity, quality, and quantity for Satsop fall-run Chinook, chum, coho, steelhead, pacific lamprey, speckled dace, and largescale sucker.

**F. What are your project's objectives?**

1. By July 2020, GHCD will conduct project development outreach to landowners that neighbor the Baker/Bailey family in order to extend project design scope to the Monte-Elma bridge.
2. Hire a restoration consultant by July 2020 to begin developing the project designs for Satsop river mile 2.5-5.

3. The consultant will complete permit ready preliminary designs by April 2021. The designs will focus on using techniques that improve impaired river processes, with the goal of benefitting the habitat and populations of salmonids and other native aquatic species in the lower main-stem Satsop.
4. GHCD will maintain landowner relationships by coordinating quarterly design check-ins with the project landowners throughout the life of the design project.

**G. What are the assumptions and constraints that could impact whether you achieve your objectives?**

**Assumption:** Landowners will be willing participants throughout the design project

- The Grays Harbor Conservation District has had multiple discussions with the Baker family about the implementation of an ASRP type project involving their land, resulting in a high level of interest in pursuing a design project. Although this does not guarantee that the landowner will be willing throughout the project, we believe a commitment to consistent communication between GHCD, the restoration consultant, and this main landowner will increase the likelihood of a designed project that fits the landowner's needs and significantly improves habitat for aquatic species. Furthermore, GHCD has had recent conversations that indicate neighboring landowners will also be willing participants in an ASRP type project, allowing for the extension of the project beyond the Baker family property.

**H. What are the anticipated benefits of this project?**

We anticipate the following benefits from the successful completion of this project:

- A reach scale (~2.5 mile) restoration project design for the main-stem Satsop that is designed specifically to improve aquatic species habitat and is ready to enter the permitting, final design, and construction phases.
- Positive momentum around the ASRP with a landowner that not only owns land along this stretch of the Satsop, but throughout the Chehalis Basin, and is a leader in the regional agricultural community.
- Capitalization on previous ASRP investment during Early Action Reach development.

**Project details.**

**I. Provide a narrative description of your proposed project.**

This project will capitalize on the investment that the ASRP previously made (during Early Action Reach development in 2018) in developing conceptual designs and fostering landowner relationships for river mile 2.5 to 5.0 of the main-stem Satsop. This investment allowed GHCD to have targeted, project specific conversations with the main landowner family (Baker/Bailey) in this reach about submitting an ASRP reach scale design proposal. These conversations resulted in a signed landowner acknowledgement form. Furthermore, GHCD has been the main landowner point of contact for the Grays Harbor County Lower Satsop Investment Planning Process, which is a collaborative community planning initiative with the goals of flood hazard reduction and habitat projects starting at just above the Monte-Elma bridge and going to the confluence with the Chehalis. Our proposed project presents the opportunity to develop a reach scale design stretching from the Baker family properties to the bridge, thereby linking the two Chehalis Basin Strategy investments. This project will also complement the river restoration work currently being designed for the ASRP Early Action Reach from river mile 8-11.

The first step of this project will be to conduct additional outreach to the landowners neighboring the Baker/Bailey family. GHCD has had recent discussions with neighboring landowners about a potential ASRP project, and these landowners have expressed openness to a project. However, more deliberate project development is needed around an ASRP type project to insure that the design process is attuned to each landowner's needs. This project development phase of the project will result in signed landowner acknowledgement forms as well as a memo documenting the landowner interactions.

After the project development phase, GHCD will develop an RFQ using existing reach data and landowner willingness information. The RFQ will be developed in close consultation with the Grays Harbor County engineer in order to ensure that the RFQ contains the full context of the Monte-Elma bridge situation as well as the Lower Satsop work occurring downstream of the bridge. Once a consultant is hired, they will begin the design process by gathering/analyzing existing information and identifying data gaps. Subsequent data gathering/development will include on-site survey and hydraulic modeling. This information will be used by the consultant to develop updated conceptual plans that extend the previously completed work from the Baker family property downstream to the bridge at RM 2.5. The consultant will then prepare permit ready preliminary designs and complete permit applications all of which will address limiting factors for aquatic species in this reach of the Satsop while maintaining the Satsop River's approach to the Monte-Elma bridge. The landowners and Grays Harbor County will be involved in design vetting in at least quarterly intervals, and more frequently if deemed necessary. The design consultant will also conduct wetland and cultural surveys/analyses. The results of this work will be rolled into project permits that will be submitted by GHCD.

**J. Provide a scope of work, schedule, and permit plan.**

**Task 1 – Project Development Phase**

Grays Harbor CD will conduct outreach to the landowners that neighbor the Baker/Bailey family in order to collect feedback on ASRP type restoration actions and determine landowner specific situations that will inform the design process. These conversations will provide information that will be rolled into the design RFQ.

<b>Deliverable</b>	<b>Entity Responsible</b>	<b>Schedule</b>
Map of parcels of participating landowners and a memo summarizing landowner situations as it relates to ASRP techniques/design	Grays Harbor Conservation District (GHCD)	April 2020 - June 2020
Signed landowner acknowledgement forms	GHCD	April 2020 – June 2020

**Task 2 – Advertise For and Hire Restoration Consultant**

Grays Harbor CD will develop/advertise an RFQ for the design project.. Technical expertise for this process as well as additional SOQ scorers will be sought from the Habitat Work Group and the Coast Salmon Partnership.

<b>Deliverable</b>	<b>Entity Responsible</b>	<b>Schedule</b>
<i>RFQ development and advertising</i>	<i>GHCD</i>	<i>April 2020 - June 2020</i>
<i>SOQ scoring, consultant selection, and consultant contracting</i>	<i>GHCD</i>	<i>June 2020 - July 2020</i>

**Task 3 – Design Development and Permitting**

The restoration consultant will develop conceptual and permit ready preliminary designs for the main-stem Satsop river mile 2.5-5.0. The work will be initiated with an updated conceptual design and construction cost estimate for landowner and stakeholder review. The design consultant will complete a draft and final permit-ready/preliminary design. This effort will include pre-and post-project hydraulic modeling, wood structure stability engineering, a construction cost estimate, and a recreational risk assessment. The effort will also include assessments and analysis related to local, state, and federal permit applications.

The design consultant will assist GHCD in the submittal of the following permits:

- JARPA; SEPA Exemption; Cultural Resources; WDFW HPA Application

Deliverable	Entity Responsible	Schedule
Permit Ready Preliminary Designs	Restoration Consultant	July 2020 – April 2021
Submitted Permits	GHCD	July 2020 – April 2021

#### Task 4 – Landowner Communication/Outreach During Design Development

Grays Harbor CD will act as project point of contact for the landowners involved in the design project.

GHCD will also conduct outreach to the neighboring landowners whose properties are not involved in the design, in order to make them aware of the potential construction project and address any concerns they may have.

Deliverable	Entity Responsible	Schedule
Memo summarizing landowner interactions during design development and outreach efforts	GHCD	Quarterly reports until project completion in April 2021

#### Task 5 – Project Administration

Deliverable	Entity Responsible	Schedule
Grant administration/reporting (monthly)	GHCD	April 2020 – April 2021
Grant vouchering and financial reporting (monthly)	GHCD	April 2020 – April 2021

#### **K. Explain how you determined your cost estimates.**

The costs associated with the restoration consultant work described in the project tasks were prepared through consultation with Natural Systems Design (NSD). NSD is currently working on restoration projects in both the Wynoochee and Satsop River basins and is a leader in the development of process-based restoration design in the Pacific Northwest. NSD based the cost of development of conceptual designs and preliminary designs from the scale and types of restoration activities outlined in the September 2018 ASRP conceptual plans. Permitting costs were developed based on the recent work NSD completed for Grays Harbor County and the GHCD on the Lower Satsop/Keys Road Restoration Project in 2019/2020. The Conservation District staff time costs associated with landowner outreach, and project management are based on estimates by

multiplying compensation rates and estimated hours to be worked for each individual. Estimated hours worked for each task are divided up as follows and are based on similar landowner engagement and restoration design development projects that the Conservation District has been involved with:

Task 1: Project Development Phase

- GHCD staff (\$6,200)
  - Project Manager (120 hours) and Program Manager (12 hours): landowner meetings/site visits,

Task 2: Advertise For and Hire Restoration Consultant

- GHCD staff (\$2,300)
  - Project Manager (40 hours) and Program Manager (8 hours): advertising for and hiring consultant services as well as consultant contract development/management

Task 3: Design Development

- GHCD staff (\$8,800)
  - Project Manager (140 hours) and Program Manager (42 hours): for input during design development and coordination between landowners and design consultants for survey site access. Collaboration with design consultant for permit submittal.
- Consultant:
  - Data Collection, Field Reconnaissance, and Landowner Meeting (\$16,000)
  - Conceptual Plan Update and Selection (\$20,000)
  - Preliminary Design, Hydraulic Modeling, Risk Assessment, Cost Estimate (\$50,000)
  - Project Permitting (\$70,000)
  - Project Administration (\$3,000)

Task 4: Landowner Communication/Outreach

- GHCD staff (\$7,500)
  - Project Manager (140 hours) and Program Manager (20 hours): meeting time/prep; additional outreach to the neighboring community.

Task 5: Project Administration

- GHCD staff (\$4,200)
  - Project Manager (30 hours) and Financial Administrator (60 hours):

**L. Describe the design or acquisition alternatives that you considered to achieve your project's objectives.**

We considered just doing a design project with the Baker family, in order to simplify landowner engagement/willingness during design development, however due to the existence of the Lower Satsop Investment Planning process and after discussions with key neighboring landowners we determined to revisit the conceptual plan phase in order to extend the project to the geomorphic reach break at the Monte-Elma bridge.

**M. Describe your long-term stewardship and maintenance plans for the project or acquired land.**

Grays Harbor CD has a track record of stewarding and maintaining riparian restoration projects. Any proposed construction based off of this design will involve planning and pursuit of funding for project stewardship/maintenance.

**N. Landowner and Community support.**



The landowner family that owns a majority of the reach supports the project (see attached landowner acknowledgement form). GHCD conducted site visits with the Baker family during initial Early Action Reach project analysis and maintained contact with them after their reach wasn't selected. Thus, when the ASRP RFP was released, GHCD contacted this landowner to discuss a potential design project that would pick up where the previous work left off. During a site visit in January 2020, GHCD and the landowner walked the project area, examined the site of ongoing bank erosion, discussed the typical elements of an ASRP type project (ELJs, floodplain reconnection, riparian enhancement), and discussed how an ASRP type design project would result in the proposed planting of some of the landowner's valuable grazing land behind erosion reduction ELJ structures. Additional loss of land for this farmer, either through erosion or tree plantings, is especially difficult because her family had a >250' riparian buffer that has been eroded away over the past 25 years. GHCD and the landowner also discussed the multi-year aspect of a project like this, as well as the uncertainties around future funding. At the end of the discussion, the landowner expressed a high degree of interest in pursuing funds for an ASRP type design project and signed the landowner acknowledgement form. Baker also expressed that her family member, Bailey, would have a high likelihood of approving of this type of project, and that when he is next in town (he lives in California part of the year), she will set up a meeting to discuss the project. Preliminary outreach has already occurred with other landowners in this reach, and they have expressed an openness to an ASRP type project on their land. The project development phase of this project will follow up on these conversations.

The Lower Satsop Investment Plan<sup>3</sup> identifies a need for bioengineered solutions to erosion occurring just upstream of the Monte-Elma bridge. A solution is needed so that the river doesn't continue on its westward erosion trajectory and run around the bridge abutments, which would result in emergency bank hardening. This design project proposal was discussed with the coordinator of the Chehalis Basin Flood Authority and he has expressed support for a design that addresses concerns around the bridge, and supplements habitat/flood hazard reduction work being pursued downstream of the bridge.

#### O. Budget Templates:

##### Aquatic Species Restoration Plan Cost Estimate Template

Table: Budget information from Excel, tab "Total All Sheets"

		OVERALL PROJECT	GRANT REQUEST	MATCH
		Cost	Amount	Amount
<u>Sheet #2 Design</u>				
Design Cost	STotal	188,000	188,000	
	<b>GTOTAL</b>	<b>188,000</b>	<b>188,000</b>	

#### Project proponents and partners.

##### P. Describe your team's experience managing this type of project.

GHCD Project Manager: Anthony Waldrop

Anthony is the lead for Chehalis Basin Strategy projects for Grays Harbor Conservation District. He acts as landowner liaison for the Satsop and Wynoochee ASRP Early Action Reaches which has involved managing landowner relationships and expectations over the course of a multi-year restoration project. Anthony has also taken a leadership role on the Satsop/Wynoochee Early Action Reach Design Teams in order to facilitate

<sup>3</sup> [https://www.ezview.wa.gov/site/alias\\_\\_1973/37263/library.aspx](https://www.ezview.wa.gov/site/alias__1973/37263/library.aspx)

coordination between Natural Systems Design, WDFW, land trusts, and landowners. Anthony is the project manager for the Satsop/Wynoochee Tributary Restoration Strategy and Pilot Project Implementation. He has experience contracting with restoration design consultants, scoping project work and developing realistic project timelines and budgets. Finally, Anthony was the lead landowner coordinator for the Grays Harbor County led Lower Satsop Investment Planning process. Thus, he is well situated to coordinate between ongoing county efforts in the Satsop, landowners, and this design project.

GHCD Program Manager: Tom Kollasch

Tom is the Watershed Restoration Program Manager for District watershed restoration projects in Grays Harbor and Pacific Counties. He has planned and constructed large scale restoration projects at numerous sites in southwest Washington. Tom supervises the watershed restoration work throughout the two Districts and will serve in an oversight and advisory role for this project, lending his experience in contract management, reach scale restoration, and restoration design development.

**Q. List all landowner names.**

Gleason Skok LLC (Tracey Baker); Philip Bailey (relative of Tracey Baker)

Additional landowners will be contacted during the Project Development phase of this project

**R. List project partners and their role and contribution to the project.**

Grays Harbor County and Chehalis Basin Flood Authority— providing information related to the Monte-Elma bridge at the downstream end of the project, as well as Lower Satsop Investment Plan projects.

**S. Barriers and concerns.**

A potential barrier for completing this design project would be the loss of landowner willingness from the Baker/Bailey family. This has been addressed through intentional conversation with the Baker/Bailey family about the goals of an ASRP type project and what a design would look like. Thus, the landowner is well aware of the types of prescriptions that the design will apply for this reach, and has expressed interest in seeing the results of a design process. Also, this reach of the Satsop sees recreational boating and fishing throughout the year. Thus, the design work will follow the Bureau of Reclamation Risk Based Design Guidelines, the same process being used for the Satsop Early Action Reach.

**T. Synergy:**

This project builds on the prior ASRP investment during Early Action Reach project development. During that process, landowner relationships were developed and data collected/synthesized, therefore this project will capitalize on this work that has already been accomplished by the ASRP. Furthermore, geomorphological change is rapidly occurring throughout this reach through high rates of channel migration. Thus, previous ASRP investments in hydraulic modeling, geomorphological survey, and conceptual design will become increasingly obsolete over time, making immediate action the most cost-effective avenue for restoration.

If erosion continues at current rates, the landowners and/or Grays Harbor County may have to take emergency actions that protect their residences/infrastructure. These potential actions will most likely not be friendly to riverine ecosystem processes.

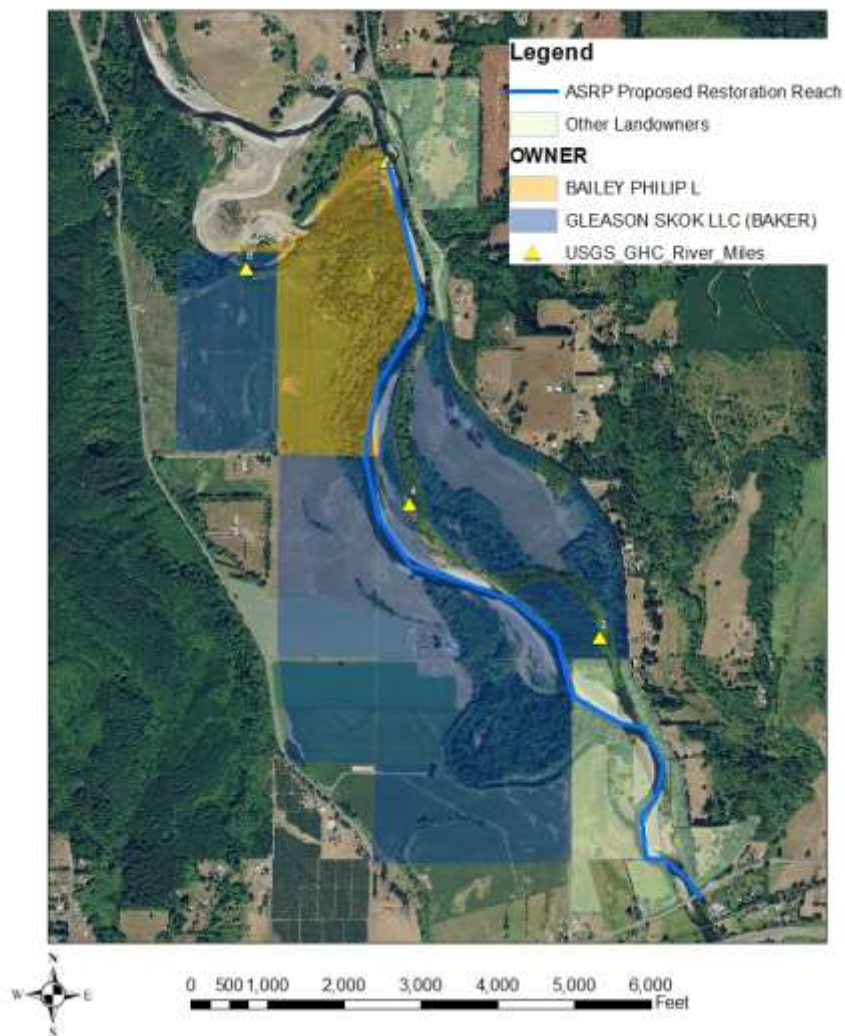
The Lower Satsop Investment Plan calls for bioengineered solutions for maintaining the Satsop River approach to the Monte-Elma bridge. Through coordination with Grays Harbor County, this design project will pursue designs that fit the priorities of the Lower Satsop Investment Plan, which was developed in 2018/2019 with multi-stakeholder input to address infrastructure, habitat, and farmland erosion concerns in this area.

**7. Other.**

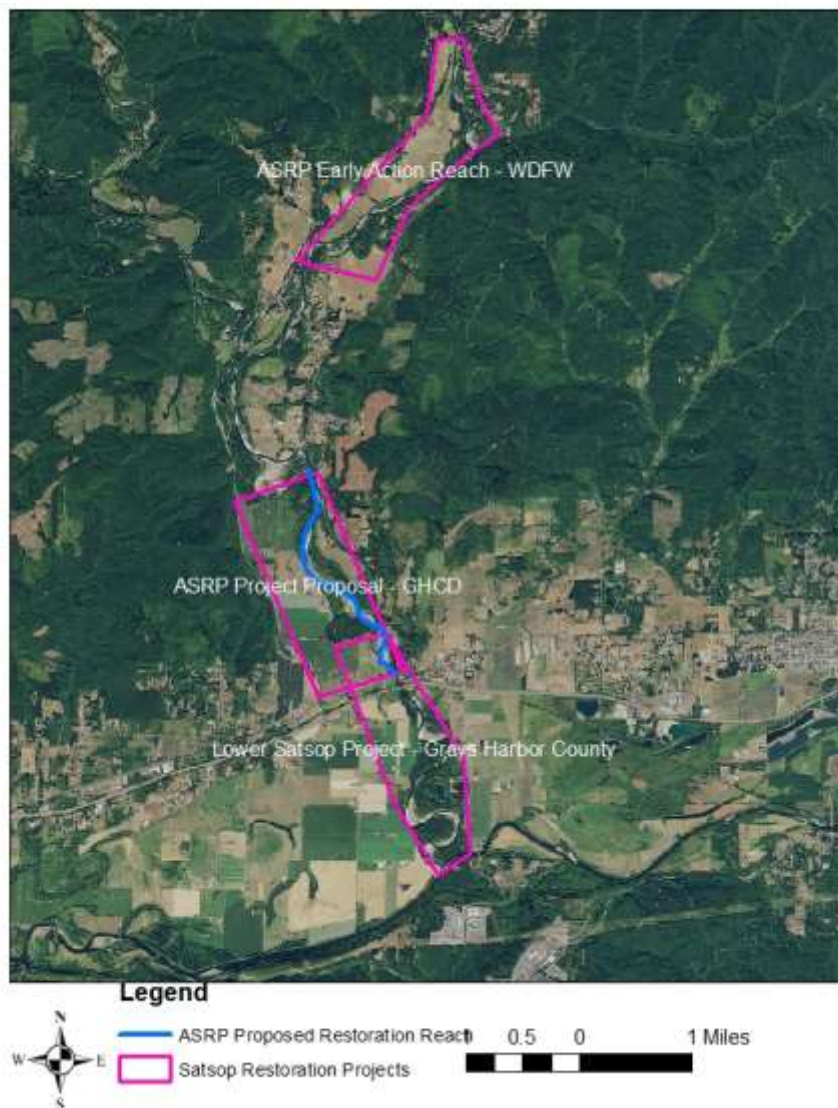
**Other Required Attachments:**

- ✓ Map with project area.

Satsop River Mile 3-5 Project Proposal Map



## Satsop Project Synergy Map



✓ Detailed project budget.

Project Name		Satsop River Mile 2.5-5.0 ASRP Design Project						
Sponsor		Grays Harbor Conservation District						
<b>DESIGN or INFORM PROJECTS</b>								
The costs on this page are for design or assessment projects, not for the design phase of a restoration proposal.								
				OVERALL PROJECT	GRANT REQUEST	MATCH		
				Budget must account for all costs to complete the project	Enter only the amount of the project request	The project Request and Match should equal the total project cost and Budget Check cell should be 0. No match is required.		Budget Check
Category	Task Description	Qty	Rate	Amount	Amount	Match	Cash, Materials, Labor, Volunteers,	Match Type (federal, state, local)
Project Development	GHCD staff time to conduct and facilitate landowner outreach		\$ -	\$ 13,700	\$ 13,700			0
Administrative	Project admin, vouchering, and financial/deliverable reporting		\$ -	\$ 4,200	\$ 4,200	\$ -		0
Conceptual design	Cost of restoration consultant for development of conceptual plan update and selection		\$ -	\$ 20,000	\$ 20,000	\$ -		0
Preliminary design	GHCD staff time for hiring of and collaboration with restoration consultant during design development and permitting		\$ -	\$ 11,100	\$ 11,100	\$ -		0
Preliminary design	Cost of restoration consultant for preliminary design development			\$ 50,000	\$ 50,000			0
Permits	Cost of restoration consultant for assistance with local, state, and federal permitting			\$ 70,000	\$ 70,000	\$ -		0
Other	Project admin for consultant			\$ 3,000	\$ 3,000			0
other	Data collection, field recon, and landowner meetings for consultant		\$ -	\$ 16,000	\$ 16,000	\$ -		0
GTOTAL				\$ 188,000	\$ 188,000	\$ -		0
					PRISM Project	\$ 188,000		
					Total			
					RCO Percentage	Match Percentage		
					1	0.00%		

✓ Design documents, when available

- ✓ Early Action Reach Alternatives Analysis available upon request; the document is too big to submit to stay under the 4 MB requirement

✓ Signed landowner acknowledgement form



# Landowner Acknowledgement Form

## Landowner Information

Name of Landowner: GLEASON-SIKOK LLC

Landowner Contact Information:

☐ Mr. ☒ Ms. Title: Ranch Mgr.

First Name: Tracey Last Name: Butler

Contact Mailing Address: P.O. Box 212 Satsop, WA 98583

Contact E-Mail Address: tracey@the-season-ranch.com

Property Address or Location: 154 Middle Satsop Rd Montesano

1. (Landowner or Organization) is the legal owner of property described in this grant application.
2. I am aware that the project is being proposed on my property.
3. If the grant is successfully awarded, I will be contacted and asked to engage in negotiations.
4. My signature does not represent authorization of project implementation.

Landowner Signature

1/16/2020  
Date

## Project Sponsor Information

Project Name: Satsop RM 2.5-5.0 Design Project

Project Applicant Contact Information:

☒ Mr. ☐ Ms. Title: Watershed Restoration Specialist

First Name: Anthony Last Name: Waldrop

Mailing Address: 330 W. Pioneer Ave. Montesano, WA, 98563

E-Mail Address: anthony.waldrop@graysharborcd.org

Grays Harbor Conservation District