Aquatic Species Restoration Program Project 22-1774P

MIDDLE HUMPTULIPS MAINSTEM GEOPSATIAL UNIT OUTREACH AND PROJECT DEVELOPMENT FINAL REPORT AND LOCAL STRATEGY

Trout Unlimited and Grays Harbor Conservation District

October 2025

Introduction

Grays Harbor Conservation District (GHCD) and Trout Unlimited (TU) worked together on the Middle Humptulips Project Development (Project) effort to explore landownership, identify landowners willing to participate in restoration, and develop restoration project opportunities in the Middle Humptulips watershed; consisting of mainstem reaches from river mile 9 to 28.1 or the Middle Humptulips Mainstem (MS) Geospatial Unit (GSU). The Middle Humptulips MS GSU was identified by the Chehalis Basin Strategy - Aquatic Species Restoration Program (ASRP) as a near-term priority area, and thus a priority for aquatic restoration funding. The Project was initiated by GHCD and TU and funded in 2022 by the ASRP.

Midway through the project timeline Quinault Indian Nation (QIN) received fisheries disaster relief funding from NOAA fisheries intended to restore coho salmon. QIN hired Natural System Design (NSD) to complete an assessment and report detailing restoration opportunities in the Humptulips watershed targeted at coho recovery and resiliency. This assessment also included an analysis of the Middle Humptulips MS GSU, and broke the GSU into geomorphic reaches with preliminary restoration opportunities based on existing conditions, such as riparian tree height and floodplain connectivity. Due to the timing of this work, the Humptulips River Restoration Strategy document highly informed the Project, and improved upon regional coordination.

This summary report describes the Project's goals, accomplishments, and concludes with next steps for the Middle Humptulips MS GSU. This report will provide a foundation for future restoration project development for practitioners in the Chehalis Basin.

Project Overview

Exploring opportunities in the Humptulips was originally discussed in an early ASRP Regional Implementation Team (RIT) meeting, where GHCD and TU noted that it was one of the near-term priority watersheds that had the least amount of active restoration or future restoration planned. After acknowledging this gap, GHCD and TU teamed up for project development funding in June 2022. Kicking off the project in the middle of the pandemic proved challenging; site visit scheduling and project progress was slow. Soon after the award, staffing changes at GHCD further delayed the project. In acknowledgment of these setbacks and of the large amount of remaining funds, an extension was granted in early 2025 moving the new agreement end date to September 2025.

The main goal of this planning project was to explore the feasibility of aquatic species habitat restoration between river miles 9 and 29 on the Humptulips River. To achieve this goal, the project team developed the following objectives:

- Conduct a GIS parcel ownership analysis
- Develop landowner outreach messaging and conduct outreach to landowners in the GSU
- Develop a catalog/database of outreach results

- Facilitate project development discussions with interested landowners and other stakeholders to develop concept level restoration designs for aquatic habitat restoration
- Create a final report/local strategy that documents all project results and can act as a resource for ASRP project sponsors to move projects forward with interested landowners

ASRP focal species that will benefit from this project include Chinook, chum, steelhead, and coho.

Methods/Actions

Landowner Outreach and Engagement

Project priorities involved developing a database of all landowners for tracking response to outreach efforts, developing outreach materials, and conducting meetings and informational interviews to ascertain landowner willingness to participate in ASRP Reach Scale and Opportunistic projects. Outreach materials were to be distributed to landowners, including mailers, social media posts, interviews, and/or meetings focusing on areas with medium to high landowner willingness to participate and defined restoration opportunities. As willing landowners were identified, GHCD and TU would conduct site visits and in-person meetings to identify projects that would make good candidates for future restoration efforts.

First, a desktop analysis was conducted of parcel ownership in the Middle Humptulips MS GSU to discern the distribution of private ownership versus other holdings. A map was generated using GIS software and datasets from Grays Harbor County (see Photo 1 and Appendix A). This map encompassed all parcels within the 9619-acre Middle Humptulips Mainstem GSU near-term priority area. This exercise resulted in 400 separate parcels owned by 244 landowners. Parcels owned by Rayonier (2063 acres), Green Diamond (1235 acres), Olympic Peninsula Timberlands (988 acres), Grays Harbor County (844 acres), Grays Harbor Audubon Society (515 acres), and Grays Harbor Green (275 acres) make up the largest land ownership in the Middle Humptulips. In a separate exercise, parcels were grouped based on land-use designation to determine which uses dominate in the GSU. From most to fewest acres, the GSU was split into the following land-use categories: Forest Land (6397 acres), Undeveloped Land (1985 acres), Residential (979 acres), Other (147 acres), Agriculture (78 acres), and Recreation (33 acres). For both exercises see Table 1 below for a breakdown in land ownership.

GHCD and TU targeted outreach was conducted with landowners on a case-by-case basis via email or phone call. Outreach was initiated with landowners that had large, contiguous parcels along the Humptulips and/or owned multiple riverfront parcels. Private (non-timber) ownership was another priority in this type of outreach due to the abundance of individual landowners in the GSU.

Table 1
Land Ownership in the Middle Humptulips MS GSU:

OWNER	ACRES (rounded to nearest whole number)	% of GSU
Rayonier	2063	21.4%
Green Diamond	1235	12.8%
Olympic Peninsula Timberlands	988	10.3%
Grays Harbor County	844	8.8%
Grays Harbor Audubon Society	515	5.4%
Grays Harbor Green	275	2.9%

LAND USE	ACRES (rounded to nearest whole number)	% of GSU
Resource – Designated Forest Land	6397	66.5%
Undeveloped – Land	1985	20.6%
Residential – All	979	10.2%
Other	147	1.5%
Resource – Agriculture	78	0.8%
Recreational – All	33	0.3%

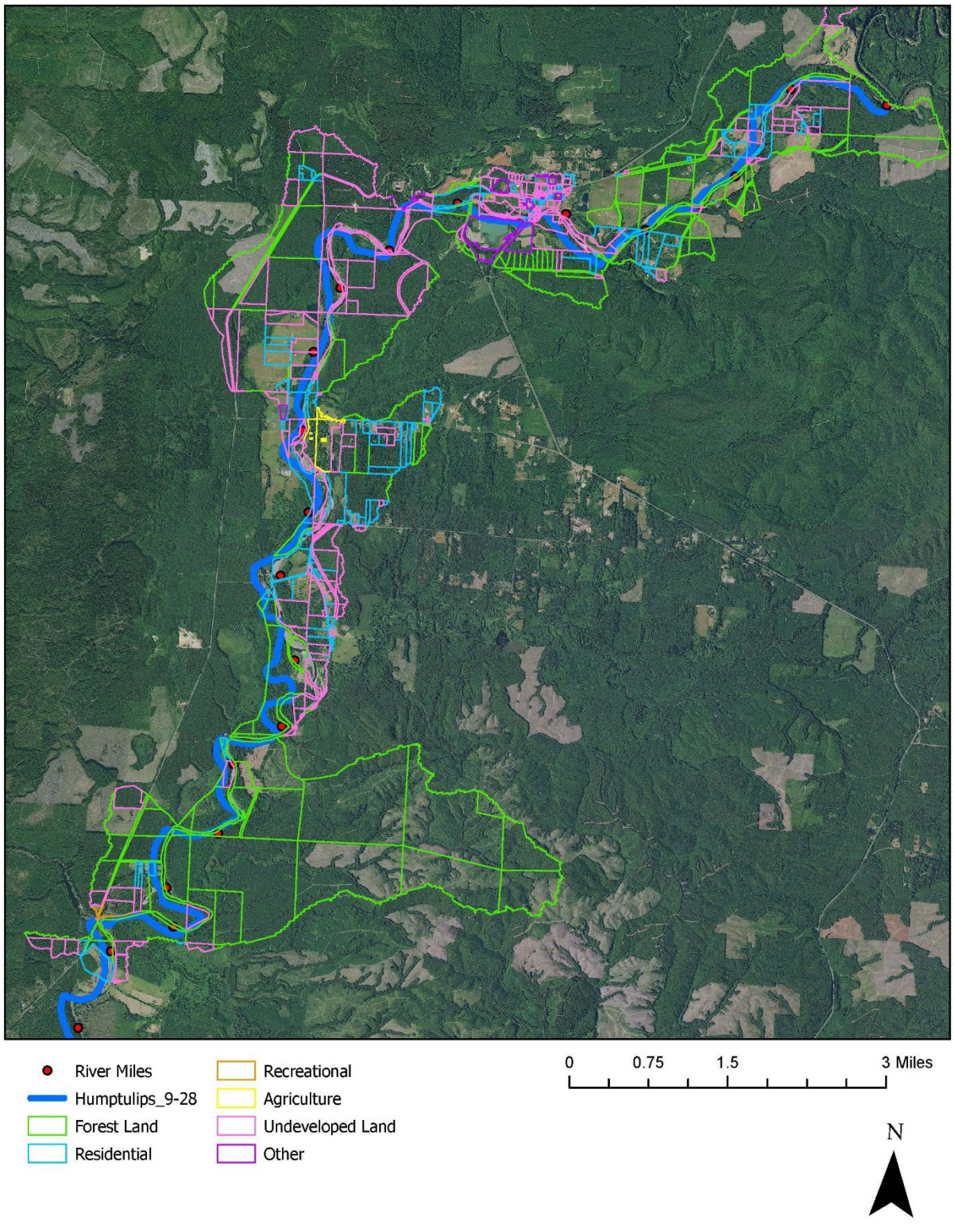


Photo 1: Middle Humptulips MS GSU Land Use Map

Private landowners were recruited by GHCD utilizing different methods. One involved sending mailers (see Photo 2 below) to owners of parcels that border the Middle Humptulips, identified in the desktop heatmap exercise. Of these parcel owners, 56 were selected to receive mailers. Landowners were selected to receive mailers if they owned small or non-timber parcels and had not previously worked or been in contact with GHCD. For example, Grays Harbor County and Grays Harbor Audubon Society were directly contacted due to their public and conservation ownership (respectively), large holdings within the GSU, and the structure of these organizations which facilitate contact via publicly available phone numbers, email addresses, and/or staffed offices where one can connect with and speak to a representative. Residential and small agriculture parcels were selected to receive mailers given the relative difficulty of connecting with these landowners otherwise.

Overall, outreach mailers were less successful than targeted/direct outreach to larger parcels. Of the 56 mailers sent, we received one response from a landowner near river mile 27. This landowner has approximately 600 linear feet of shoreline adjacent to a part of the river and is interested in addressing erosion through habitat-benefiting tree plantings and large wood placement. The methodology following a response to a mailer or connecting with a willing large landowner is the same: first identify the parcel context within a geomorphic reach then conduct outreach to the rest of the landowners within the reach to determine if landowner willingness is such that a reach-scale project is feasible based on this metric. Given this, it is relatively easy to understand why outreach mailers are less likely to result in reach-scale projects especially considering that most small parcel landowners are clumped and not randomly distributed in the GSU. Despite this, reaching out to smaller landowners still has value. Small landowner support is often necessary in reach-scale projects, as nearly every geomorphic reach contains at least one small parcel. More importantly, small landowners are often interested in (at minimum) planting trees. Given that riparian condition is a primary limiting factor for this GSU, and corridor connectivity is important to riparian function, GHCD and TU believe working with small landowners is still worth the effort.

Photo 2: Outreach Mailer

Most private landowner contacts that led to project development were new landowners that independently came to the conservation district seeking help with resource concerns. They tended to know or hear about GHCD because of our extensive work with agriculture producers in Grays Harbor County (e.g. GHCD lower Satsop River projects), and often as a direct result of agriculture-related events where GHCD was a participant. The landowner at RM 9-12 is an example of a private landowner who reached out to GHCD after hearing about the district's involvement in the Twin Harbors Ag Summit via fliers in the community. Additional landowners reached out to GHCD after expressing resource concerns to our partners in the basin (such as WDFW) who then directed the landowner to GHCD or facilitated a joint site visit to the landowner's parcel(s).

Humptulips Restoration Strategy

The Humptulips River Restoration Strategy (2024) was led by the Quinault Indian Nation who contracted work by Natural Systems Design (NSD) to determine restoration actions to implement in high priority reaches in the Humptulips watershed for targeted coho recovery. NSD generated a tailored analysis to support this project, which provided valuable modeling, expert analysis, and an accompanying report. In the report the Middle Humptulips MS GSU is broken out into seven reaches, Humptulips Reach (HR) 4 through 11. Each reach is given an existing conditions summary for mainstem, side channel, floodplain, and riparian habitat paired with recommended actions that address the limiting factors. Detailed REM maps with feature call-

outs also accompany the summary sections. The Middle Humptulips MS GSU reaches range between the top 2% and 12% of the whole Humptulips watershed for restoration prioritization, according to the Humptulips River Restoration Strategy (2024), see Table 2.

NSD prioritized reaches in the Humptulips Watershed based on the potential percent increase in floodplain area below relative elevation thresholds. These thresholds are based on bank-full depth multipliers, which scale to the size of the stream, allowing for comparison between the mainstem and tributaries. Floodplain connectivity was the primary chosen metric because of its importance to the formation of off-channel habitat that address limiting factors (such as key habitat and large wood) to salmonids (specifically coho in their report). The following metrics were calculated to determine the ranking of reaches within the Humptulips watershed, shown for mainstem reaches in Table 2:

- Floodplain width: Floodplain area, calculated as the area below two times the bankfull depth divided by channel length in the reach. Weighted at 0.3.
- Confinement ratio: Valley area, calculated as the area below five times the bankfull depth divided by the channel length in the reach. Weighted at 0.3.
- Entrenchment ratio: Floodplain area, calculated as the area below two times the bankfull depth divided by the channel area, calculated as the area below one times the bankfull depth. Weighted at 0.3.
- Incision ratio: Area below four times the bankfull depth divided by the floodplain area, calculated as the area below two times the bankfull depth. Weighted at 0.1.

The calculated scores are normalized by scaling to a value between 0 and 1, then are multiplied by the weight factor. These are summed to produce a restoration potential score between 0 and 1, which allows for direct comparison.

Table 2

Middle Humptulips GSU Reaches Ranked from Humptulips River Restoration Strategy (2024):

NSD Reach	Relative Rank (out of 270)	River Mile
Humptulips River 4	6	12.9 to 9.3
Humptulips River 7	9	20.7 to 17.6
Humptulips River 5	12	14.8 to 12.8
Humptulips River 6	13	17.6 to 14.9

Humptulips River 9	22	24.9 to 22.7
Humptulips River 10	24	26.2 to 24.9
Humptulips River 11	25	28.9 to 26.2
Humptulips River 8	33	22.7 to 20.7

Discussion/Outcomes

Success with private landowners was mixed. While two of the four reaches selected for project development were the result of large private landowner contacts, the other two selected reaches were exclusively or majority non-profit and/or government owned. This makes sense given that non-profit/government entities are low-effort contacts and typically own (multiple) parcels that are larger than the holdings of an average private landowner. Developing relationships with these landowners opened the most opportunity in the basin relative to the level of effort, but this also means that there is still a lot of potential in the basin with continued targeted private landowner outreach.

From our experience, private landowners that were most willing to engage in restoration project development were those which recently acquired large and/or multiple parcels with the intent to use them for a different purpose than the previous owner. These parcels were left unmanaged after agriculture or pasture use and are inundated with tansy, thistle, and blackberry. These landowners came to the CD and our partners seeking help managing these invasive weeds to improve conditions for fish and wildlife on their parcels, at which point we were able to share information on the ASRP, the priority work sought in the Humptulips MS GSU, and our implemented reach-scale projects in the Satsop. These landowners were quickly onboard with the suite of opportunities for restoration within the Middle Humptulips MS GSU. This may not be the case for private landowners in the GSU who prioritize maintaining existing uses on their parcels, which may preclude large-scale restoration work. While some may be amenable to restoration, ongoing agriculture or timber production land uses may come with constraints related to economic viability. Some landowners of this type are not interested in giving up land for a riparian buffer, especially if they are not witnessing erosion at a rate fast enough to compromise economic output.

Non-profit and government landowners come with their own considerations as these lands are sometimes used by the public, contain investments (timber), or are managed with preservation in mind. Grays Harbor Audubon Society tends to want to preserve conditions on their parcels, which is why at RM 15 to 17 we are working with them to improve only riparian condition, as reach scale restoration tends to include more impacts to riparian habitats than they were comfortable with upon first contact. Our hope is that continued relationship building will increase the likelihood they will work with us on reach-scale projects in the future. Either way, riparian enhancement is a priority in the GSU. If the Audubon Society is only open to riparian restoration

on their parcels this is still a fruitful relationship given they represent about 10% of the area within the Site Potential Tree Height in this GSU.

WDFW lands, on the other hand, are heavily recreated by fishermen even if only seasonally, including by boaters and bank anglers. In areas of high public use, restoration needs to keep public safety in mind. WDFW and Grays Harbor County want to protect timber assets, public accessibility, and infrastructure, which could influence restoration approaches or viability. These areas, such as those in Humptulips Reach 8 selected for project development, are where we anticipate the potential for helicopter placed wood due to the limited access and limited potential for access development due to the county timber parcels here.

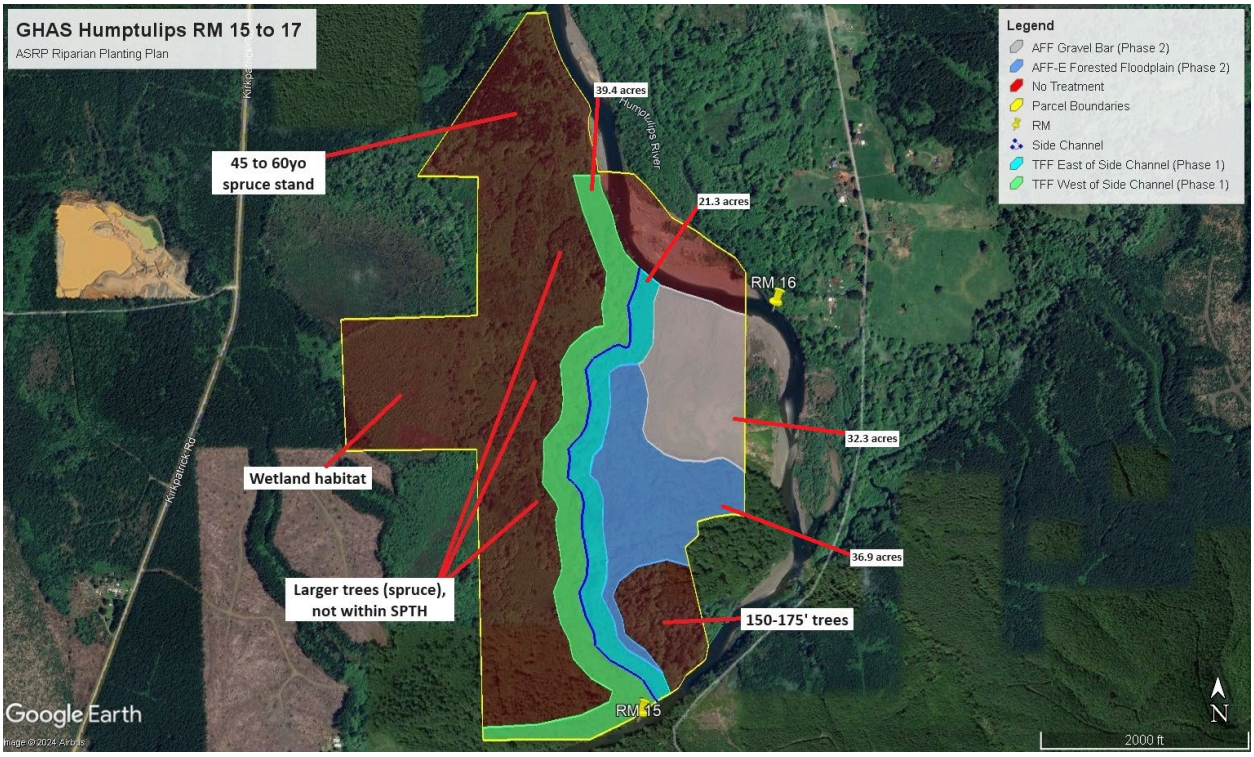
The final owner type is private timber. Private timber represents the majority landowner (Rayonier) and majority landowner type in the Middle Humptulips MS GSU. Large timber companies are typically amenable to the restoration techniques prioritized by the ASRP if those activities do not unduly impact their timber harvest operations. Therefore, restoration activities such as riparian planting, large wood installation, and floodplain reconnection are often on the table if those activities fall within areas that the timber companies own, but can't harvest, either because of regulations or access issues. The CD already has a working relationship with timber landowners on other ASRP projects (example: Green Diamond Resource Company in the Middle Wynoochee MS GSU and Schafer Creek RM 8-9), and QIN is actively developing projects with Rayonier in the Humptulips watershed. Timber companies are among the easiest landowners to reach out to given most have staff available via phone or email, and they often have habitat biologists on staff who are familiar with aquatic habitat conditions and restoration techniques.

Rayonier Forest Resources is the largest landowner in the GSU; however their parcels are clustered at the top end and low end of the GSU. While the parcels on the upper end near RM 28 would likely form the basis for a reach scale project on NSD's Humptulips Reach 11 (RM 28.9-26.2), we opted to focus on smaller private landowners as we saw this as the biggest implementation challenge within the GSU requiring the level of effort that this grant was designed to fund. Timber landowners therefore represent a relatively easy follow up opportunity for outreach and project development that could be completed with minimal effort to reach GSU restoration goals following development and (hopefully) implementation of the projects identified in this outreach and project development effort.

Reach Scale Project Opportunities

<u>Humptulips RM 15-17 Riparian Restoration</u>

- Within NSD Humptulips Reach 6 (RM 17.6 to 14.9) (priority reach 13 out of 270)
- Single landowner – Grays Harbor Audubon Society



Humptulips RM 15 to 17 Riparian Restoration Final Design

Humptulips RM 15-17 Riparian Restoration was the first successful project developed by the outreach and project development grant efforts. Following a site visit with NSD during January 2024, this Audubon parcel was identified as an ideal location for restoration work due to the side channel habitat and potential for improved riparian condition. GHCD's project manager reached out directly to Janet Strong, the Grays Harbor Audubon Society president, to begin discussions around restoration opportunities. Audubon was open to restoration work to address riparian conditions, but they were opposed to in-water or bank line construction work due to the way in which this work disturbs riparian habitats important to birds.

This property contains several ephemeral side channels as well as one side channel that is wetted year-round. Conditions on these parcels range from Sitka spruce reproduction (replanted after harvest) to (assumed) natural succession following logging approximately 60 years ago (based on tree-core aging of select spruce trees). The area of natural succession was selected for a riparian restoration project by GHCD following site visits with NSD in fall of 2023. Conditions on this parcel are characterized by early successional hardwood tree species (primarily young red alder) with sparse mature conifers (western hemlock, Sitka spruce) near the river and active side channel. The overall lack of conifer seed sources near the side channel coupled with the thick alder canopy has stymied natural succession into a conifer-dominated riparian zone needed for the large wood cycle that shaped salmon habitat in the Humptulips prior to industrial logging and stream cleaning.

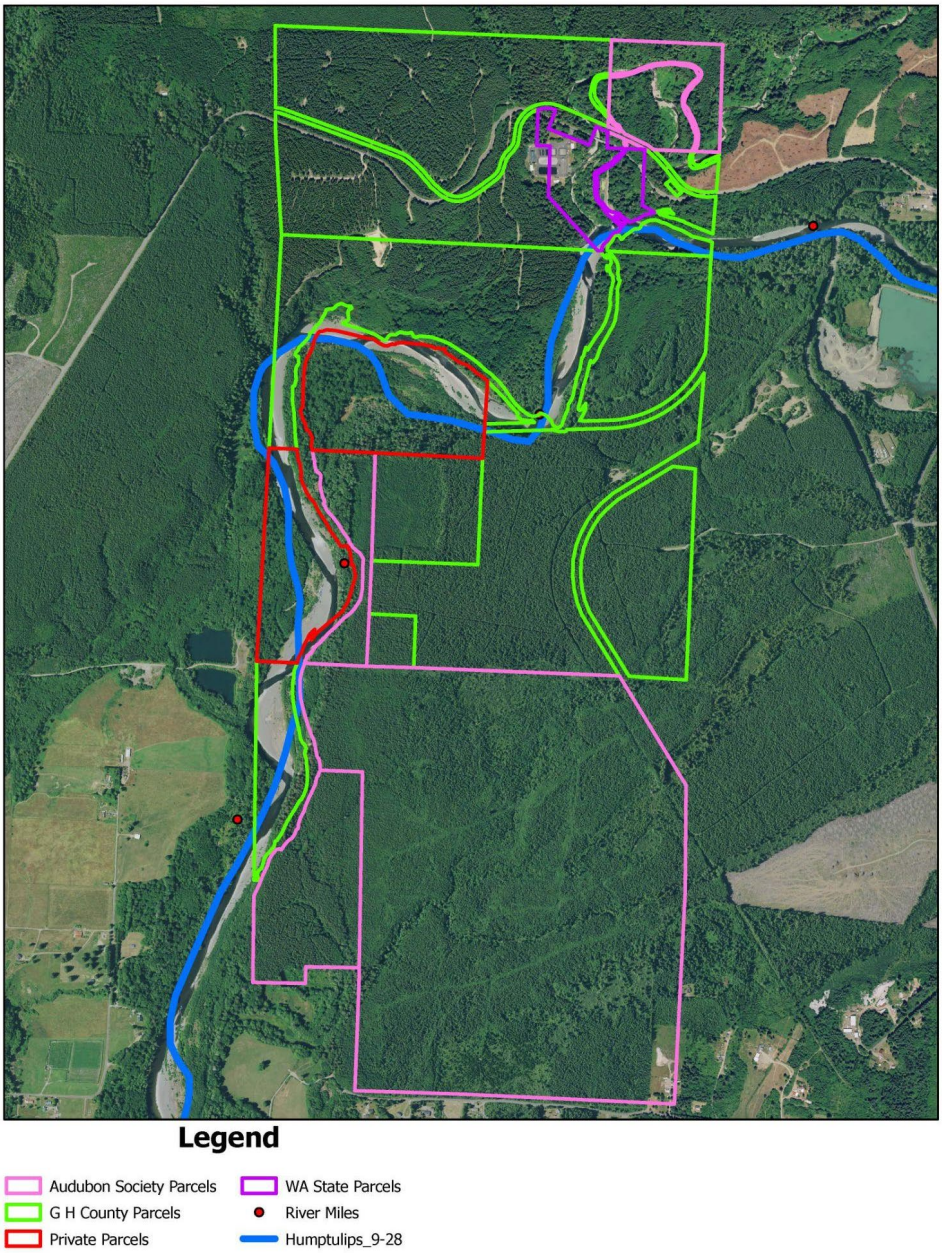
Canopy conditions along side channel

GHCD developed a riparian restoration concept plan to seek funds for this endeavor. In fall of 2024 GHCD applied for ASRP funds to implement riparian restoration work on approximately 129.9 acres of terraced and floodplain forest within the site potential tree height buffer of the side channel and the floodplain between the side channel and the mainstem Humptulips. This project agreement became effective in September of 2025 and the Request for Proposals process to solicit an archeologist to conduct cultural resource survey is underway. Implementation is scheduled to begin on this project in Winter of 2026 and will wrap up in the fall of 2029.

We believe this project is an important exercise to build trust between the district and Audubon. As we have continued to work with Audubon they have become more open to discussions around in-stream work, especially as alternative implementation strategies such as helicopter placed wood have been suggested.

Humptulips River Mile 20-22.7 Restoration Planning

- Within NSD Humptulips Reach 8 (RM 20.7 to 22.7) (priority reach 33 out of 270)
- Primary landowner, Grays Harbor County, is open to instream ELJs and excavation to reengage floodplain and side channel habitat
- Secondary landowners include WDFW and Grays Harbor Audubon Society



Humptulips Reach 8 Landowner Map

Humptulips RM 20-22.7 was the second project development spawned from this outreach and project development effort. This reach ranked 33 out of 270 identified in Humptulips River

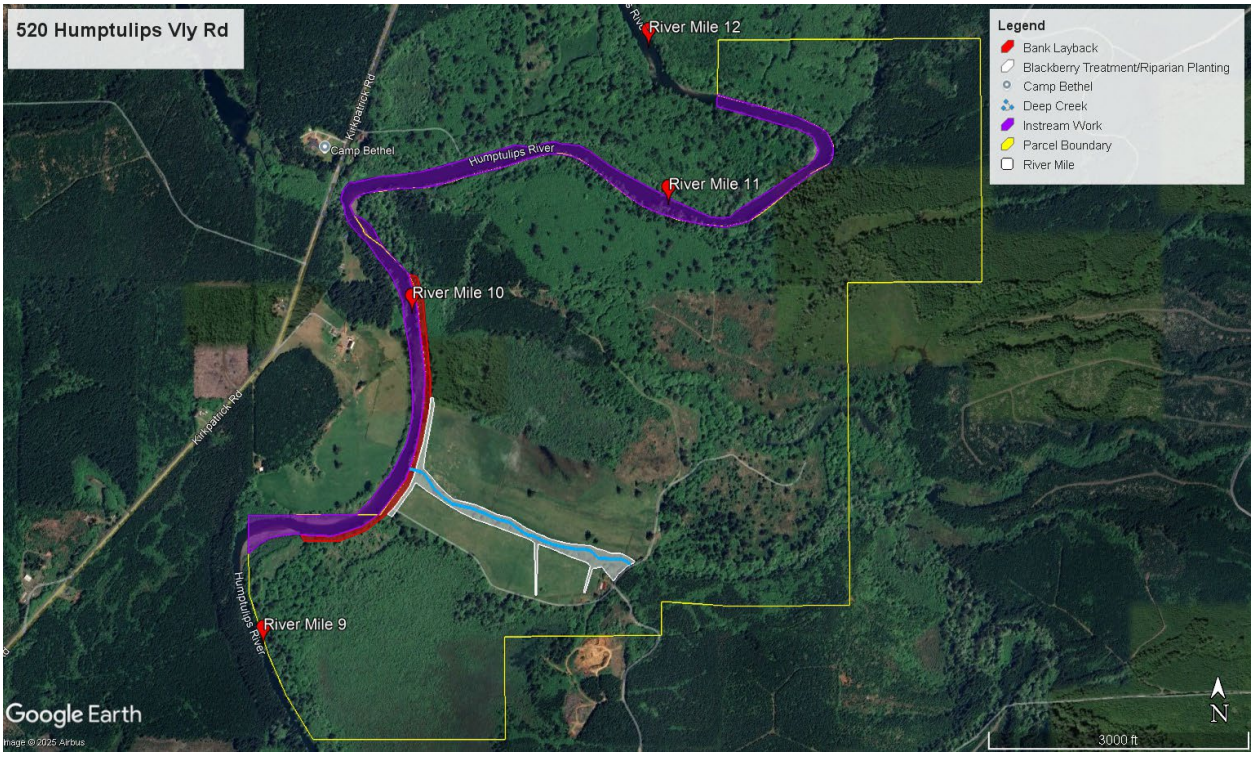
Restoration Strategy (2024) and ranked high by the GHCD and TU project managers for future project restoration prioritization due to the low number of landowners. Grays Harbor County Forestry Department parcels make up a significant portion of riverfront property within the reach. TU's project manager conducted successful outreach to Jon Price, confirming willingness for restoration, and verifying habitat conditions. Additional landowners include two private landowners, Grays Harbor Audubon Society, and WDFW.

Following a joint GHCD and TU site visit the parcel was identified as a good candidate for restoration based on existing conditions. The approximately 1.4mi reach consists of a wide, simplified, low gradient channel that appears, gravel dominated. There are large gravel bars that can be seen in aerial maps; backwater channels were also present. Side channels and floodplains appear in elevation mapping (NSD 2024). A few individual large pieces of wood were present instream, but none appeared to actively be collecting additional pieces. A couple dry large wood complexes were observed on the gravel bar, and are activated during higher flows (personal observation, October 2024). The riparian area is dominated by mature alder stands and sparsely present conifers. Fish use includes holding by Chinook, chum, and coho, and active spawning in appropriate substrate and gradient by Chinook, coho and chum (personal observation, October/November 2024). The reach would benefit from adding functional large wood to maintain gravel bars, prevent redd scour, increase pool abundance, improve habitat complexity, increase floodplain and side channel connection, and recruit future wood. Helicopter-built wood, humanscape modifications, strategic excavation, machine built ELJs, and valley reset are restoration techniques identified for this reach in the NSD report (NSD 2024).

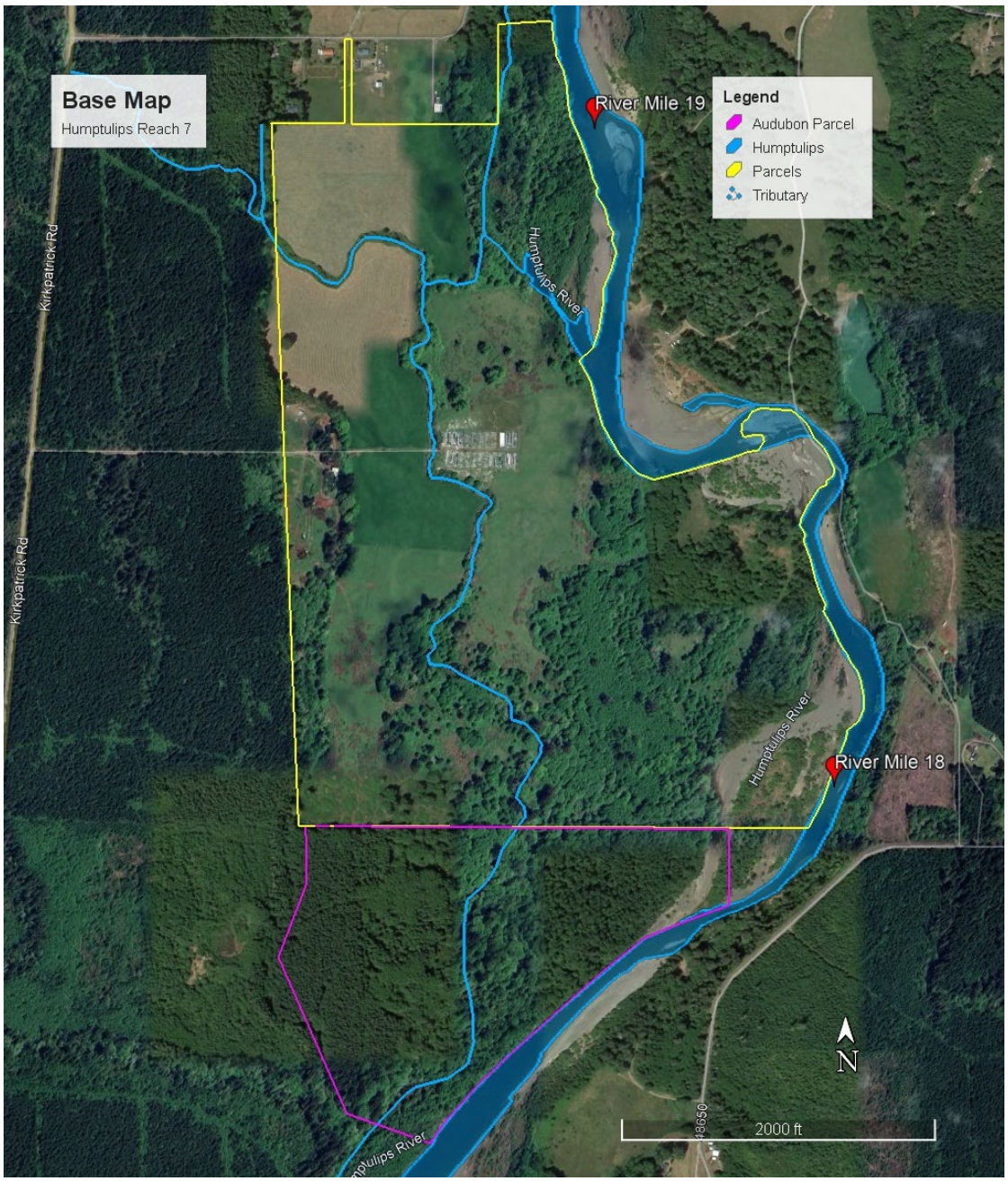
GHCD and TU successfully applied and were awarded funding for an ASRP Project Opportunity grant for conceptual designs. This project development grant agreement was executed in August 2025 and work has begun on this project to solicit a design contractor to begin data collection and concept development.

Humptulips River Mile 9 to 12 and 18 to 19 Restoration Planning

- Within NSD Humptulips Reach 6 (RM 9.3 to 12.9) (priority reach 13 out of 270) and 7 (RM 17.6 to 20.7) (priority reach 9 out of 270)
- Two private landowners with fish and wildlife habitat priorities for fishing and hunting recreational opportunities



Humptulips RM 9-12 Parcel Map with Restoration Suggestions



Humptulips RM 18-19 Parcel Map

These two landowners represent the third project spawned from this outreach and project development effort. Both landowners recently purchased the parcels which were left in an unmaintained state following historic agriculture use. In general, both parcels are inundated with non-native species, and could use habitat improvements from in-stream wood to riparian plantings. Each landowner is interested in improving their lands for fish and wildlife benefit to support recreational hunting and fishing opportunities.

RM 9-12:

The parcels at RM 9-12 are river-left and contain a big mainstem meander and the junction of Deep Creek. Conditions in this reach are characterized by a lack of large wood and a shallow plane bed channel. Habitat complexity could be increased through large wood additions to encourage pool formation, gravel sorting, hydraulic complexity, and velocity refuges. The river is incised in this reach and there are few side channel or inset-floodplain areas. Engaging side channels and off channel habitat would likely require excavation due to the perched nature (4-8ft) of side channel inlets. Off channel habitat opportunities include Deep Creek and a left bank side channel near the lower end of these parcels that could be enhanced with large wood additions. The landowner is hesitant about adding wood to Deep Creek, so this may preclude increasing habitat quality in this off-channel area.

RM 18-19:

The parcels at RM 18-19 consist of floodplain habitat along the mainstem Humptulips and contain both an ephemeral tributary originating from wetlands uphill from the property and a high flow channel. Both features are currently devoid of large wood, inundated with blackberry in their riparian areas, and contain multiple culverts that are potential fish barriers. The mainstem shoreline is characteristic of the Humptulips: incision here is leading to cut banks and erosion along the landowner's property. The downstream part of the eroding meander has some relict rip rap that is preventing the river from bisecting the floodplain at the lower end of the property.

NSD's assessment of this reach indicates that it is simplified, straightened, and contains few pools and little wood. Despite the incision, lidar indicates that there are multiple relict mainstem channels in the straightened portion of the reach. This reach is lacking habitat complexity and could benefit from strategic wood placement to form pools, provide cover, and split/slow flows. An apex ELJ on this parcel near the high-flow split at RM 18 could increase the stability of this feature, and protect the forested bar that has formed between this feature and the mainstem. This would encourage development of this forested bar, which would increase shading, edge habitat, and eventually large wood inputs.

Strategic wood placements along the low-lying floodplain within RM 18.5 to 18 could reconnect side channels. Additionally, off channel habitats could be increased and enhanced through invasive species removal, riparian enhancement, and barrier corrections. This is particularly the case for the ephemeral tributary on this parcel, which has quality habitat at its upper end outside of the agricultural parcels.

Riparian conditions are mixed throughout the reach, and clearing has occurred on these parcels. Around RM 18.5 the riparian area is cleared, and riparian plantings would be of benefit here if erosion could be managed to facilitate tree establishment.

GHCD recently applied for the project development with these two landowners and are currently awaiting one landowner acknowledgment prior to review from the ASRP Steering Committee.

Conclusion

As a result of this project development grant three projects have been advanced to next phases. Those projects are 1) Humptulips RM 20-22.7 Project Development, 2) Humptulips RM 9-12 and 18-19 Project Development, and 3) Humptulips RM 15-17 Riparian Restoration, which are further described in Appendix B. This report, along with the Humptulips River Restoration Strategy (2024) will serve as resources for future project sponsors to identify high priority projects in the Middle Humptulips GSU and help the Office of the Chehalis Basin's Aquatic Species Restoration Program achieve its restoration goals. These projects alone include 9.7 miles of restoration, or 88% of the 11-mile ASRP goal for restoration in the GSU. Additional potential projects and corresponding landowner willingness are laid out in Appendix B.

The initiation of this project generated positive interest among practitioners throughout the Chehalis Basin. At the monthly Chehalis Lead Entity meeting there was a standing check-in offered to provide updates on the Middle Humptulips development. The Aquatic Species Restoration Program, lead by Washington Department of Ecology, attempted to develop a federal grant proposal to fund a suite of project work in the Humptulips, that included project development in the Middle Humptulips MS GSU. This pursuit was ultimately unsuccessful due to misaligned project phases and the total project proposal amount not meeting the funding criteria. Finally, a handful of work group meetings were successfully held between stakeholders and tribes interested in providing feedback during the development of the Humptulips Restoration Strategy (2024). GHCD and TU project managers recommend generating a comprehensive list of Humptulips projects, ASRP and non-ASRP funded, as a future action to get a better sense of the scope and scale of work in this unique watershed. This would also help facilitate better coordination and collaboration amongst all active practitioners. A standing meeting every 6-12mo of active practitioners throughout the watershed could also continue to foster project development and partnership. Ultimately, the Middle Humptulips Project Development was a successful catalyst in generating project development and coordination in a region of the Chehalis Basin that was nearly devoid of partnerships and projects.

The project sponsors believe that the work in the Middle Humptulips GSU is of high importance due to the proximity of the GSU within the basin. Most anadromous fish, including hatchery produced salmonids, utilize this portion of the watershed for migration, holding, and foraging. This reach is especially important for naturally produced salmonids, which additionally utilize it for spawning and refuge during high flows. Addressing the limiting factors pertaining to the habitats that facilitate these portions of pacific salmon life history will benefit all salmonids that utilize this watershed. Knowing these habitat needs, landowner willingness to participate in restoration, and constraints to feasibility will help future restoration practitioners ensure that restoration can be tailored by location such that it won't be stymied by other activities or landowner priorities that coexist within the basin.

Lessons Learned

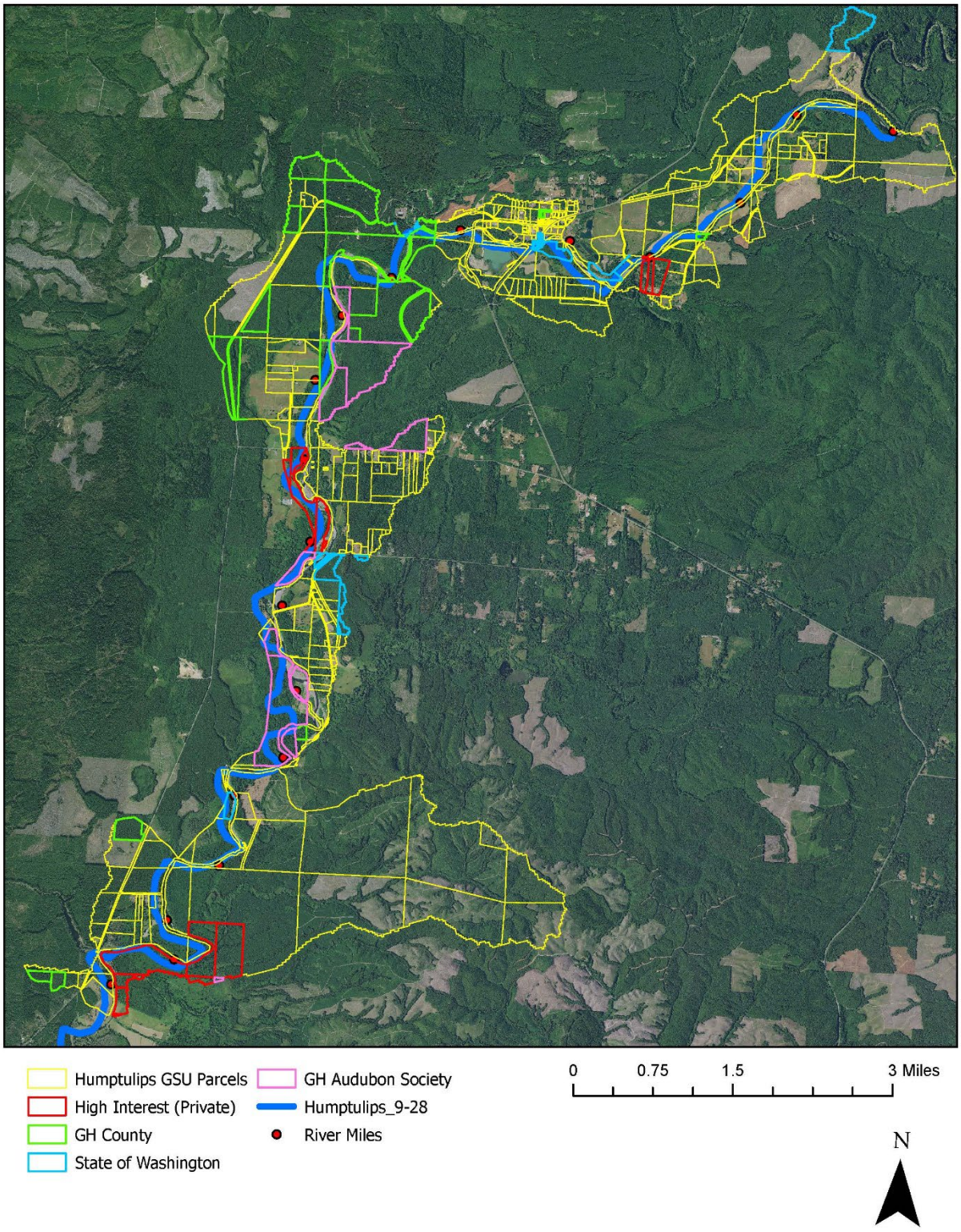
One recommendation for other sponsors conducting outreach and project development within a GSU is focused on methodology. Given our experience during this effort, we would not

recommend outreach mailers. Despite their low cost, we did not receive enough responses nor did the one response we received turn into a project development opportunity. Our best results came from direct (targeted) outreach. This type of outreach could involve a robust analysis, such as that published by NSD which forms a basis for selecting landowners for outreach by geomorphic reaches, or just a desktop GIS analysis that reveals landowners of parcels adjacent to the river. If geomorphic reaches are identified, a landowner could be selected based on type or parcel size. If this landowner is on-board, smaller adjacent landowners or those less likely to want to partake in restoration (based on ownership type) could then be contacted with the potential for inclusion in a project with the majority landowner. This was how we found the most success in translating a geomorphic reach into a project development opportunity. In our case we were extra lucky that new landowners knew about us or our project partners and reached out with their resource concerns, often not related to reach scale restoration. Having an analysis like that generated by NSD was invaluable and our recommendation to sponsors conducting outreach and project development would be to include funds for contracting this type of analysis (if possible). We understand this was not within the scope of this grant; however, it was heavily relied upon for the development of this local strategy.

Another important takeaway is about ASRP priorities. We noticed during our work within the GSU that riparian restoration is listed as a priority action for the Middle Humptulips, despite the abundance of intact riparian habitats relative to other large rivers in the GSU. Riparian restoration, we learned, was prioritized due to summer water temperatures that could be buffered by additional shade and the lack of large wood in the system. This means that a more nuanced priority for this GSU would be increasing conifer abundance as opposed to focusing on converting other habitats into riparian buffers. Most of the GSU has large buffers, however many are hardwood-dominated and lack conifer diversity. Underplanting projects, like that at RM 15 to 17, meet this priority in a way that will achieve the desired outcome more wholistically than if we were to focus solely on foresting unforested areas. This also opens a restoration option that most landowners should be onboard with. If a parcel has trees already, increasing the conifer diversity and therefore riparian health should be easy to do given that it will not involve giving up land that may otherwise be used for agriculture or other purposes.

This effort did identify some data gaps that would be useful for future restoration practitioners in this GSU as well as others. For most of the basin fish-use data is limited within ASRP documents, and early coordination with WDFW and tribal fish biologists is important for project support. It would be useful for project sponsors to get this data early as it is just as important for informing projects as landowner willingness and geomorphic cohesiveness. If project sponsors have this data early on, they can utilize it to generate projects that are more appealing to all stakeholders, including those who look at factors beyond the processed-based restoration that the ASRP primarily focuses on. This will ensure projects are both technically sound under the guidelines of the ASRP and regional experts with a vested stake in these shared resources.

Appendix A: Landowner Heatmap



Appendix B: Middle Humptulips Landowner Willingness Table:

Landowner willingness is qualified as follows:

- "High" = open to ELJs, excavation, riparian planting, and invasives treatment in the near-term;
- "Moderate" = open to riparian planting and invasives treatment, with hesitation about construction impacts in the near-term but could be amenable later – or – has worked with GHCD previously but has not been contacted yet as part of this effort;
- "Low" = expressed resource concerns but is only open to riparian planting and invasives treatment or less;
- "Unknown" = part of a reach with willing landowners but not yet contacted as part of this effort

Note: parcels are organized from upstream to downstream (higher RM to lower RM); **Bold** rows are landowners that are part of ongoing ASRP project development activities

Parcel	Ownership	Willingness	Reach miles and NSD reach	Notes
201016220010 and 201016220020	Private	High	600ft at RM 25 785ft if downstream neighbor (parcel #201016220010) is included NSD Reach 10	275 East Humptulips Rd. Reach used for Chinook holding. Downstream neighbors are likely interested as well. Two upstream neighbors' worth reaching out to try to connect with upstream GHCF parcel (#201009420010) to create contiguous 0.75 miles
201112440010	**Grays Harbor County - Forestry**	**High**	**RM 22.5** **NSD Reach 8**	
201112430010	**State of Washington Fisheries**		**RM 22.5** **NSD Reach 8**	**Stevens Creek Hatchery and infrastructure may preclude restoration work. NSD report suggests**

				intake weir creates bottleneck for juvenile salmonids. Complexity here could provide cover/refuge from predators.
201113400000	**Grays Harbor County - Forestry**	**High**	**RM 21.25-22.5** **NSD Reach 8**	
201113240010	**Private**	**Unknown**	**RM 21.25-22** **NSD Reach 8**	
201113320010, 201124400000, 201124320010	**Grays Harbor Audubon Society**	**Moderate**	**RM 19.5-21.25** **NSD Reach 7 to 8**	
201113320020	**Private**	**Unknown**	**RM 20.5-21.25** **NSD Reach 8**	
201124220010	**Grays Harbor County - Forestry**	**High**	**RM 19.75-20.5** **NSD Reach 7**	
201126110030, 201126110010, 201126400000, 201125320010	**Private**	**High**	**RM 18-19** **NSD Reach 7**	**New landowners have reached out to WDFW and GHCD to express interest in riparian enhancement, invasive management, and mainstem and side channel in-stream restoration work. Site visit occurred 9/9/25 and project**

				development is in the works.
201135120010	Grays Harbor Audubon Society	Moderate	RM 17-18 NSD Reach 6 to 7	Directly downstream of previous landowner, could be linked with that project.
201135430010, 191102120000	**Grays Harbor Audubon Society**	**Moderate**	**2 miles, RM 15-17** **NSD Reach 6**	**191102120000 is the parcel with an ASRP planting project currently slated for implementation beginning in winter of 2026.**
191102410010	Grays Harbor County - Forestry	High	RM 15 NSD Reach 6	Within Audubon parcels at RM 15-17
191111110000, 191111240020, 191111400000	Green Diamond Resource Company	Moderate	RM 12.5-15 NSD Reach 5	Downstream of Audubon RM 15-17, both sides of the river, then river-left. Green Diamond works with GHCD on other projects but have not yet been approached about work in the Humptulips
191111240010	State of Washington Dept of Game		RM 14 NSD Reach 5	Reynvaan's Bar public access point may preclude restoration work
191122110000, 761001400000, 191115430010, 191114320010, 191114310000, 191123220000	**Private**	**Moderate to High**	**River Left RM 9 to 12** **NSD Reach 4**	**Single landowner interested in invasive management, riparian plantings for**

				elk habitat. Also potentially interested in bank-layback and in-stream wood for fish habitat and increased fishing access. Currency working with land manager to generate a project development.

Appendix C: Middle Humptulips Projects Advancing to Next Phases

Project 1: Humptulips RM 15-17 Riparian Restoration

Humptulips Reach 6 (RM 17.6 to 14.9)

GHCD will lead implementation of riparian restoration along a perennial side channel of the mainstem Humptulips River through invasives management, hardwood thinning, and conifer underplaning to encourage successional processes for future benefits to aquatic species from shade and woodloading

#1- 201135430010, 191102120000

Parcels 201135430010 and 191102120000 are Grays Harbor Audubon Parcels located between roughly RM 14.9 and 16.8 (considered RM 15 to 17). Conditions on these parcels range from Sitka spruce reproduction in 201135430010 to seemingly natural succession in 191102120000 following logging approximately 60 years ago (based on tree-core aging of select spruce trees). 191102120000 was selected for a riparian restoration project by GHCD following site visits with NSD in fall of 2023.

Riparian restoration will focus on the side channel and will approach implementation in two phases. The first phase will focus on the 250-foot side channel buffer and will include conifer and shrub underplantings coupled with girdling alders selectively to encourage canopy gaps and conifer succession to a secondary (and eventually climax) riparian forest. Without intervention, the odds of this succession happening naturally is uncertain, though certainly far into the future. Treatment will include 5500 conifers (sitka spruce, western red cedar, and western hemlock) 600 big leaf maple, 550 shrubs (osoberry, cascara, and snowberry), and 1200 live stakes of willow and cottonwood.

The second phase will focus on the floodplain and gravel bar. Treatment will include 4600 conifers, 700 big leaf maple, 400 shrubs (with red elderberry instead of osoberry), and 3600 live stakes.

In total, 129.9 acres of riparian habitat will be treated for restoration/enhancement. The 250ft buffer widths meet or exceed the site-potential tree height, and will encompass roughly 9,950 linear feet of shoreline. Treatment will average 132 plants per acre. Implementation is slated to begin in Winter 2026 and will continue through 2029.

Recommendation: GHCD will continue to build a relationship with Grays Harbor Audubon Society with the intent to get them in support of in-stream work on this parcel and the other parcels they have in the GSU. Following riparian restoration work, pursue funds for riparian maintenance to ensure establishment and revisit the topic of instream work.

Canopy conditions along side channel

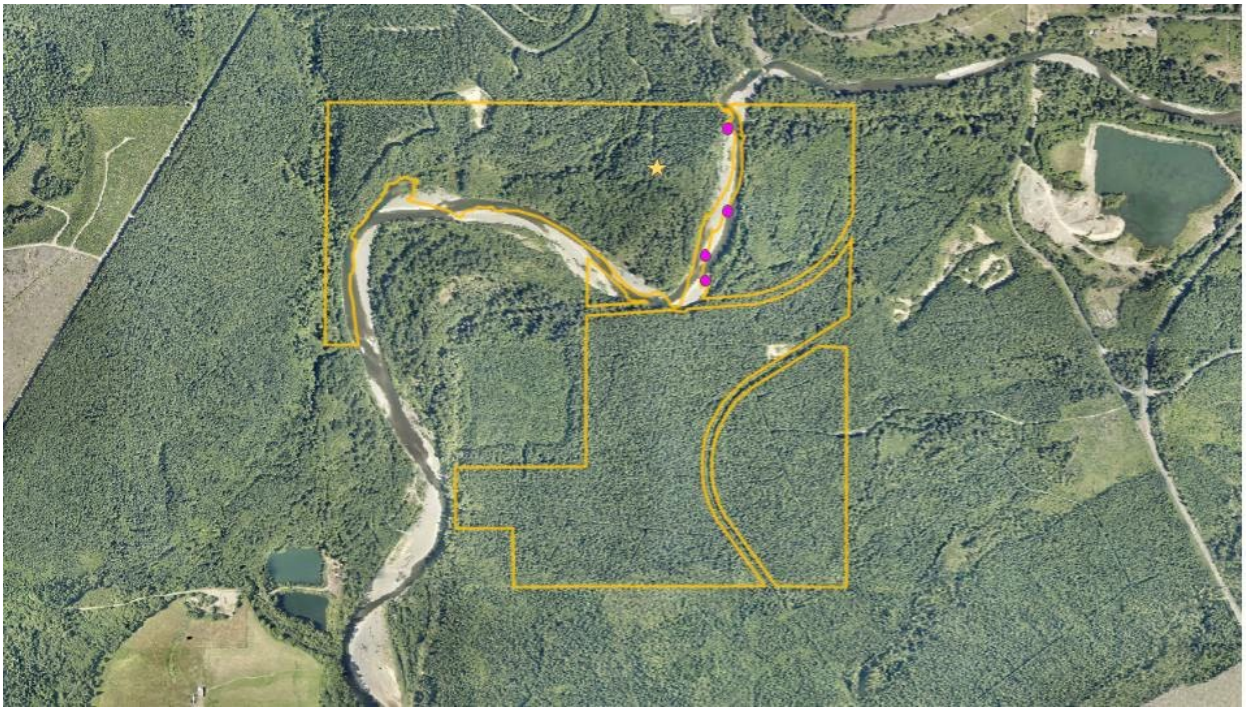
Project 2: Humptulips RM 20-22.7 Project Development

Humptulips Reach 8 (RM 22.7 to 20.7)

GHCD and TU will work together to produce concept level designs for future development of preliminary/final design and construction implementation of in-stream and riparian restoration in the mainstem Humptulips River

Field notes from site visit with GHCFD

#1 - 20111340000



Parcel 20111340000 is owned by Grays Harbor County (GHC), and alone is a good candidate for restoration especially given landowner willingness.

GHC owns the parcel and the GHC Forestry Department manages the timber on the property for harvest. They also allow permitted access for recreational activities like fishing and hunting. TU accompanied Jon Price, GHC Forestry Director (GHCFD), on a site visit to the property in fall 2024. Access is easy via Kirkpatrick Road, you turn on to a gated gravel road that is maintained by Grays Harbor County. After a few tenths of a mile the gravel road ends and vehicles can be parked; from here there is access to a primitive foot path down to the river. Yellow circles on the map above show approximately where site observations were made and the star represents parking. Access to the western parts of the parcel would likely have to be created. Immediately adjacent to the parcel is a private landowner, this landowner's property has no discernable access according to Jon Price GHCF.

GHCFD has indicated a high willingness to support restoration implementation.

Recommendation: Following project development work, pursue final design and implementation phase funding. Pair with adjacent parcels for a larger reach in both phases.

#2 - 201124220010

This parcel is easily accessible through an easement road shared by the upstream landowner. Jon Price, has a personal and professional relationship with the landowner and seems to think he would be interested in restoration as long as activities did not hinder or ruin gravel bar use for 4th of July celebrations. If this reach could be connected to the upstream GHC parcel it could be ~2.5mi of restoration. GH Audubon owns parcels across the river with non-contiguous landowners downstream.

#3 - 201112440010

This parcel reach has potential easy access. However, it is right above the hatchery and upstream seems to be smaller landowner parcels. Habitat needs still include wood placement and conifer succession planting; there are some relict structures with large rip rap that could be ripped out, too.

Project 3: Humptulips RM 9-12 and RM 18-19 Project Development

Humptulips Reach 7 (RM 20.7 to 17.6)

GHCD will produce concept level designs for future development of preliminary/final design and construction implementation of in-stream and riparian restoration in the mainstem Humptulips River

#1 – 201126110030, 201126110010, 201126400000, and 201125320010

These parcels are owned by a single landowner who recently purchased the parcels. They are river-right and encompass roughly river mile 18 to 19 within NSD reach 7. This property was historically used for agriculture, was recently used for a clandestine cannabis operation, and is now being managed by the current landowner for haying, running beef cattle, and restoration.

The landowner is primarily interested in invasive species management and habitat improvements for fish and wildlife. The landowner is an active fisherman and hunter and wants to see the property restored for recreational opportunities tied to these interests. The landowner also wants to continue to utilize the viable agricultural lands for haying and running a small number of cattle, and would like to work on removing invasive knotweed, blackberry, tansy, and canadian thistle to enhance this land use.

GHCD is working with this landowner to generate an ASRP project development in combination with the landowner at Reach 4.

#2 – 201135120010

This parcel is river-right and directly downstream from the previous parcels. This parcel is Grays Harbor Audubon Society-owned and appears to be well forested with a riparian community of uncertain age/composition. Looping this parcel into this project would make sense as GHCD is already working with Audubon in this watershed. At minimum they should be open to riparian enhancement and low-tough restoration techniques.

#3 – 191122110000, 761001400000, 191115430010, 191114320010, 191114310000, and 191123220000

These parcels are owned by a single landowner who recently purchased the parcels. They are river-left and encompass roughly river mile 9 to 12 within NSD reach 4. This property was historically used for agriculture and is now being managed by the current landowner for hunting and fishing opportunities. The property consists of habitat along the mainstem Humptulips and

contains Deep Creek, a potential tributary for coho restoration. Both the mainstem and tributary are currently devoid of large wood and are inundated with blackberry in their riparian areas. The mainstem shoreline is characteristic of the Humptulips: incision here is leading to cut banks. The landowner would like to remove blackberry, add a 50ft buffer to deep creek, convert the fields into silvopasture for elk habitat, and increase accessibility to the mainstem of the river for recreation. Within these goals are a desire to improve habitat conditions for fish and wildlife for improved recreational fishing and hunting opportunities.

GHCD is working with this landowner to generate an ASRP project development in combination with the landowner at Reach 7.

Appendix D: Humptulips River Restoration Strategy (link)