SFEG KNOTWEED REPORT 2025

Upper Skagit Knotweed Control Program
2025 Season Report
December 2025

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AKNOWLEDGEMENTS

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Funders

Plant Protection Division
Pest Program

Salmon Recovery
Funding Board

America's Ecosystem Restoration Initiative/
America the Beautiful Challenge

Introduction

The Upper Skagit Knotweed program was initiated in 2001 by The Nature Conservancy and the program has been controlling knotweed in the Upper Skagit Watershed ever since. In 2009 the Skagit Fisheries Enhancement Group (SFEG) inherited the program and has continued to secure funding, at various levels. During the 2025 season, SFEG and our partners within the Skagit Cooperative Weed Management Area (CWMA), or Skagit Knotweed Working Group, completed extensive surveys and treatments of rivers and streams in the Upper Skagit River Watershed (Fig 1). We surveyed using a prioritized watershed, top-down, landscape scale approach along waterways and monitored a large percentage of previously recorded knotweed patches. Treatment efforts were guided by the prioritization strategy initially developed in 2001 and updated by the Skagit CWMA in 2019. The 2019 update reprioritized some sub-watersheds based on data from previous years. SFEG contracted with the Washington Conservation Corps (WCC) crew and local rafting companies to survey, monitor and treat knotweed patches in riparian areas and associated floodplains throughout the Upper Skagit Watershed. In addition, SFEG also received on-the-ground assistance in our efforts from several Skagit CWMA partners including U.S. Forest Service, Skagit County, Skagit Land Trust, Washington Department of Fish and Wildlife and the Sauk-Suiattle Indian Tribe.

In 2025, SFEG continued its goal of treating knotweed in the floodplains of the Skagit and Sauk Rivers upstream of their confluence in Rockport, while also working downstream of this confluence to Concrete. The downstream area, referred to as the Middle Skagit, was added in 2019, under the guidance from the Skagit CWMA. The majority of survey/treatment work takes place in the floodplains. Occasionally surveys are completed in upland areas, since this can be the source of knotweed progeny in the floodplain, but most of the upland areas were surveyed early in the Knotweed Program history and are now knotweed-free. SFEG makes occasional forays into these previously checked areas to affirm the absence of knotweed, but most resources are directed at floodplain areas where knotweed is more problematic and likely to spread. The Washington Conservation Corps (WCC), under supervision from the Stewardship Manager with SFEG, spent 39 days working for the Upper Skagit Knotweed Control Program in 2025. At the beginning of the year when budget planning occurred it was expected that the WCC crew would spend 49 days doing knotweed, but this did not happen because the crew was pulled at the end of August for a two-week spike with an outside sponsor. This happens every year, but the timing is unpredictable and this year it happened to occur during knotweed season. SFEG was not able to backfill this lack of a crew, so productivity for 2025 was lower than expected.

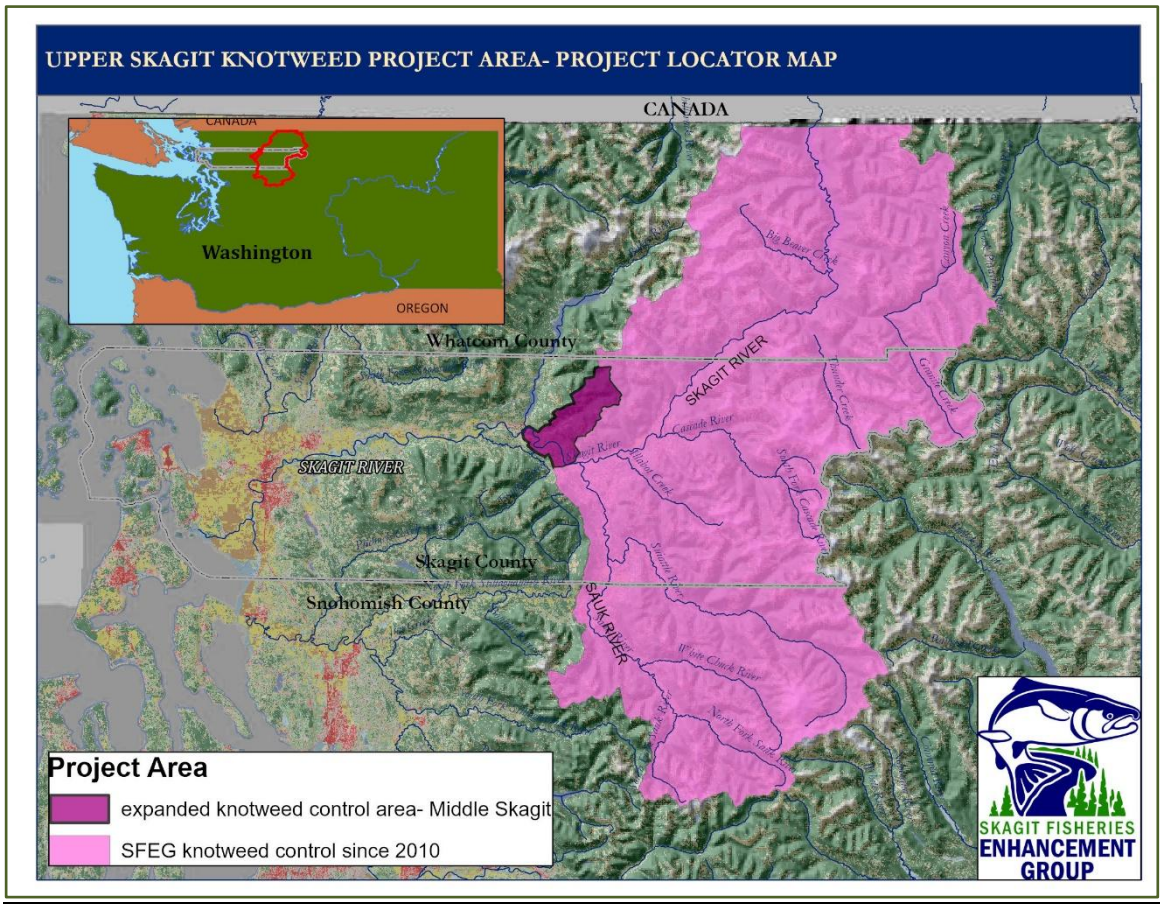

Figure 1. Upper Skagit Knotweed Program project area.

The Sauk-Suiattle Indian Tribe (SSIT) is an important CWMA partner that has been conducting field treatments of knotweed under the umbrella of the Upper Skagit Knotweed Control Program since 2011. In 2025 they worked along the Sauk River from Forest Service boundary at Clear Creek downstream to the confluence with the Skagit, as well as in Darrington and the Sauk Prairie community. The Sauk-Suiattle Tribe is based in Darrington and can utilize local relationships with private landowners that SFEG would have to spend time cultivating. SSIT also hired a contractor who conducted knotweed treatments on private properties in the Middle Skagit reach, while SFEG treated US Forest Service lands within this area. Using this patchwork method, we were able to ensure that the entire watershed was covered and still follow the top-down approach. See Figure 2 for a visual representation of who was responsible for which portion of the watershed. SSIT reports its results separately, so this report does not include information for the areas they treated, unless otherwise specified.

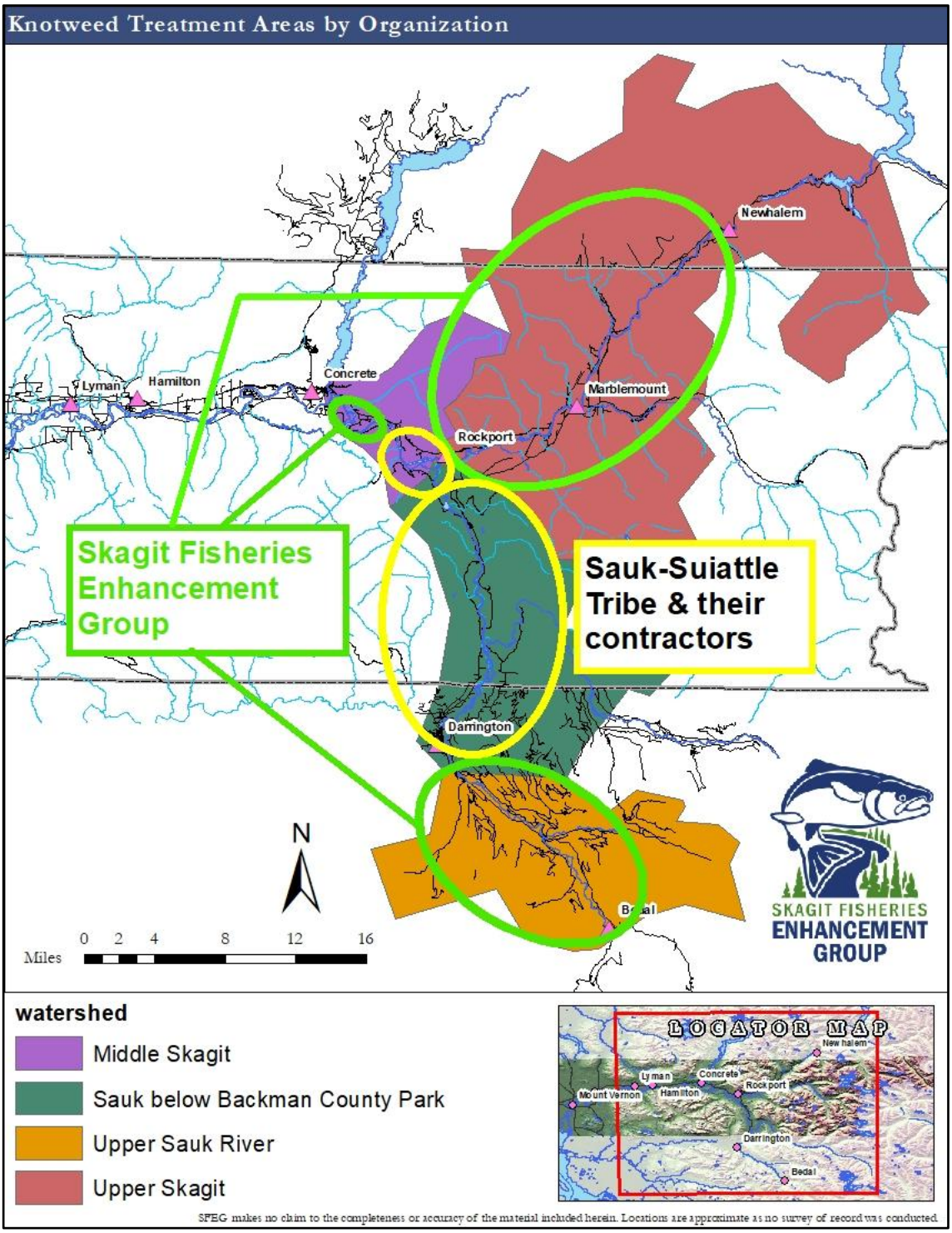

Figure 2 Map showing the Skagit watershed and which organization is responsible for various reaches to get full coverage and thus follow the top-down doctrine.

2025 Summary: In 2025, the Skagit Fisheries Enhancement Group (SFEG) worked with AmeriCorps youth volunteers from the Washington Conservation Corps (WCC) to treat knotweed along 20.4 river miles of the Skagit River Watershed. While traversing approximately 2,732 acres (4.26 mi^2) 222 knotweed patches were encountered and treated. The total area of knotweed treated was 1,159 square meters comprised of 10,507 stems. If aggregated into one spot this conglomerate patch would cover approximately 0.28 acres. The difference of knotweed prevalence between the Upper Skagit watershed, where knotweed has been controlled since 2001 and the Middle Skagit where we have been treating knotweed since 2019 is remarkable. In the Upper Skagit watershed

there was an average of 0.9 knotweed stems per acre surveyed. In the Middle Skagit reach there was an average of 15.3 knotweed stems treated per acre surveyed.

The Watershed and Project Area

The Upper Skagit Knotweed Control Project focuses on the Upper Skagit River basin, which is approximately 2,960 square miles. Since a portion of the watershed is in Canada this makes the effective project area roughly 1,989 square miles, or about the size of Delaware. When the Knotweed Program began the focus was surveying and treating knotweed in the upland portions of the sub-watersheds. Once knotweed was controlled in the upland areas the focus shifted to the floodplain, where knotweed truly thrives. High water events spread plant fragments throughout the floodplain where they grow roots and establish new colonies. SFEG still continues to treat upland knotweed patches as necessary, but the majority of resources are dedicated to eliminating knotweed from the floodplain. As the largest drainage in Puget Sound, the Skagit River contributes approximately one third of the total amount of freshwater input to Puget Sound. Much of the Skagit River has been designated as Wild and Scenic by the United States Forest Service because of the pristine nature and ecological significance of the area. Designations have also been extended to the Sauk, Suiattle and Cascade Rivers, plus Illabot Creek, all of which fall within the knotweed control program boundary.

Various funding sources for various river reaches

Due to geographical restrictions from various funding sources SFEG has had to stitch together a patchwork mosaic of funding sources to be able to follow the tiered watershed, top-down approach in the Skagit watershed. For example, Washington Department of Agriculture funds knotweed treatment within a watershed downstream until the first landowner who does not provide access. The National Fish and Wildlife Foundations (NFWF) America Ecosystem Restoration Initiative (formerly known as the America the Beautiful Challenge) provides funding for work specifically on US Forest Service property, both in the Upper Sauk watershed and in the Middle Skagit Reach. The initial SFEG proposal to NFWF was only for work in the Upper Sauk, but once the Sauk-Suiattle Tribe committed to filling in the gaps in the Middle and Lower Sauk and the Middle Skagit, SFEG expanded the NFWF proposal to include US Forest Service properties in this Middle Skagit (Fig. 3. This is consistent with the top-down approach directed by the Skagit Cooperative Weed Management Area (CWMA). The top-down approach utilized by SFEG and emphasized by WSDA means prioritizing knotweed treatment within a watershed by controlling plants in the upper portions of the watershed first and moving downstream. Figure 3 illustrates how SFEG cobbled together treatment areas from various funding sources and how the Sauk-Suiattle Tribe backfilled the gaps. Treatment areas are overlayed upon the prioritized sub-watershed map updated in 2019 by the Skagit CWMA. Without the cooperation, partnership and flexibility of the Sauk-Suiattle Tribe there is no way the entire Upper Skagit Watershed would get surveyed for knotweed.

2025 Monitoring Results

The typical herbicide treatment monitoring regimen is one visit to a site to spray and a second follow-up visit, weeks or months later to assess treatment effectiveness. Due to the large extent of the Upper Skagit Knotweed Program project area this typical methodology is not practical. There simply isn't enough time in the season to visit each site a second time. Skagit Fisheries has adapted to conduct surveys, treatments, and monitoring concurrently. The result of this is that monitoring results lag by a year. For example, during the 2025 knotweed field season monitoring was conducted to determine effectiveness of patches treated in 2024. If a patch treated the previous year is found to still be alive it is treated again, and the monitoring data is updated.

The monitoring results for 2025 (conducted on patches treated in 2024) continued to be positive. For example, of the 265 knotweed patches treated in 2024 there were 102 patches that required follow-up herbicide application in 2025. This 62.8% kill rate is a little lower than we would like to see for knotweed but is still progress. In the Upper Skagit, of the 43 patches treated in 2024, 8 required follow-up treatment in 2025. This mortality rate of 81% is much higher than the overall project area which was dragged down by the Middle Skagit Reach which had a mortality rate of only 51%.

The 2025 treatment season results are summarized in Table 1, including some conclusions drawn from the data.

Table 1. Summary of 2025 knotweed treatments, traditional area (Upper Skagit) and expanded area (Middle Skagit) separated. Treatment metrics represent only SFEG effort and are not combined with partner efforts in project area.

2025 Season

2025 knotweed season	TOTAL	Upper Skagit	Middle Skagit
knotweed patches treated	222	51	171
new patches treated	65	21	44
old patches treated	157	30	127
river miles surveyed	20.4	15.1	5.3
area traversed (acres)	2,732	2,183	549
total stems treated	10,507	2,124	8,383
stems treated- new patches	4,577	484	4,093
stems treated- old patches	5,930	1,640	4,290
average stems- new pathces	70.4	23.0	93.0
average stems- old patches	37.7	54.6	33.7
knotweed stems per acre surveyed	4	0.9	15.3
1 stem patches found	40	4	36
total area treated (m^2)	1,159	201	958
area treated (m^2)- new patches	565	67	498
area treated (m^2)- old patches	594	134	460
average area (m^2)- new patches	9	3.20	11.3
average area (m^2)- old patches	3.8	4.5	3.6
patches dead/presumed dead	1,229	346	883
patches visited	1,452	517	935
percentage of patches visited	45.9%	54.7%	42.2%

Conclusions from 2025 Data:

SFEG had been treating knotweed in the Upper Skagit for years before beginning treatment in the Middle Skagit. It makes sense that there would be less knotweed encountered where treatment has been ongoing for years. There are several metrics that demonstrate this. The most straightforward is simply the number of knotweed patches treated. In 2025, SFEG treated 51 knotweed patches in the Upper Skagit watershed versus 171 knotweed patches in the Middle Skagit reach. This trend continues with the total number of knotweed stems treated in each reach, 2,183 knotweed stems treated in the Upper Skagit watershed against 8,383 stems in the Middle Skagit reach. This difference is the most stark when we factor in area surveyed. The area surveyed in the Upper Skagit Reach is much larger than the area surveyed in the Middle Skagit Reach, yet much more knotweed was treated in the

Middle Skagit. To make a direct comparison we can divide the number of knotweed stems treated by the area surveyed. This metric shows the starkest contrast of knotweed presence between the Upper Skagit Reach and the Middle Skagit Reach. The Upper Skagit averaged 0.9 knotweed stems per acre surveyed while the Middle Skagit Reach averaged 15.3 knotweed stems per acre surveyed. All hope is not lost. It's important to remember that when the knotweed control program began the Upper Skagit had similar numbers, but the long-term persistence of consistent treatment has significantly reduced the knotweed in the Upper Skagit. The Middle Skagit is following a similar trajectory, but treatments started about a decade later. Each year continues to see a reduction of the amount of knotweed treated in the Middle Skagit.

Table 2 The decline of knotweed requiring treatment in the Middle Skagit Reach 2021 to 2025

knotweed treatment metrics	2021	2022	2023	2024	2025
number of patches treated	351	321	247	178	171
number of stems treated	33,560	18,902	12,808	9,107	8,383
area of knotweed treated (m^2)	4,324	2,107	1,355	690	958

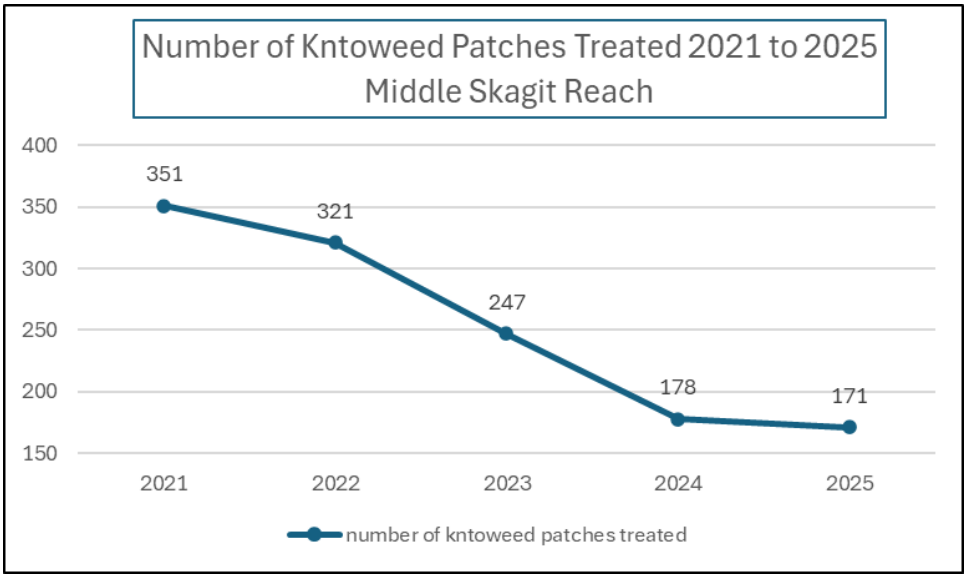

Figure 3 Number of knotweed patches treated in the Middle Skagit Reach 2021 to 2025.

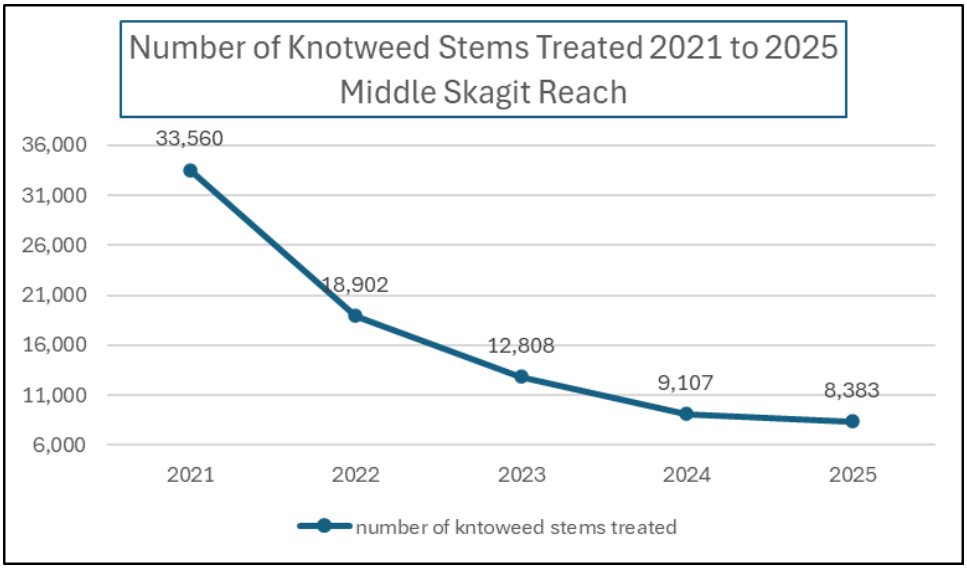

Figure 4 Number of knotweed stems treated in the Middle Skagit Reach 2021 to 2025

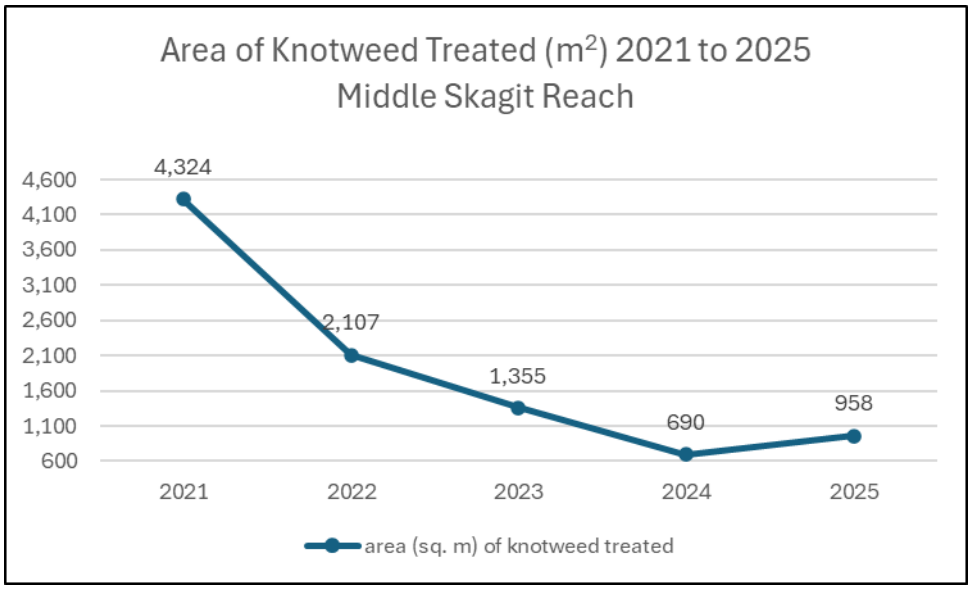

Figure 5 Area of knotweed treated (square meters) in the Middle Skagit Reach 2021 to 2025.

Herbicide usage is another metric used to gauge the amount of knotweed treated. As the amount of knotweed in the system decreases one would expect to see a similar decline in the amount of herbicide applied each year. In 2008 the Upper Skagit Knotweed Control Program switched from treating knotweed with a 5% glyphosate mixture to a 1% imazapyr mixture. This was based on research from Tim Miller at the Washington State University extension office out of Mount Vernon. He found a 1% imazapyr solution had a higher kill rate on knotweed than a 5% glyphosate mixture. To be consistent, Table 3 and Figure 7 only show herbicide application in the Upper Skagit Reach, this does not include herbicide applied in the Middle Skagit reach. Since the Middle Skagit reach was added partway through the record keeping including it now would impact the Upper Skagit numbers and add inconsistency. The Middle Skagit numbers are recorded separately and not displayed here, since there are only four years' worth of data, which is not enough for a good analysis.

Table 3 Amount and type of herbicide applied, and area of knotweed treated.

Year	Gallons of herbicide mix applied	herbicide	Acres treated
2002	185	Glyphosate5%	1.9
2003	194	Glyphosate5%	1.9
2004	147	Glyphosate5%	1.5
2005	448	Glyphosate5%	4.5
2006	721	Glyphosate5%	7.2
2007	343	Glyphosate5%	3.4
2008	58	Imazapyr 1%	1.2
2009	180	Imazapyr 1%	3.6
2010	174	Imazapyr 1%	3.5
2011	65	Imazapyr 1%	1.3
2012	54	Imazapyr 1%	1.1
2013	34	Imazapyr 1%	0.6
2014	75	Imazapyr 1%	1.3
2015	42	Imazapyr 1%	0.8
2016	8.2	Imazapyr 1%	0.3
2017	17	Imazapyr 1%	0.4
2018	16.3	Imazapyr 1%	0.2
2019	26.3	Imazapyr 1%	0.2
2020	1.1	Imazapyr 1%	0.01
2021	7.1	Imazapyr 1%	0.04
2022	2.51	Imazapyr 1%	0.01
2023	1.52	Imazapyr 1% & Glyphosate 5%	0.01
2024	9.2	Imazapyr 1%	0.04
2025	4.89	Glyphodate 5%	0.03

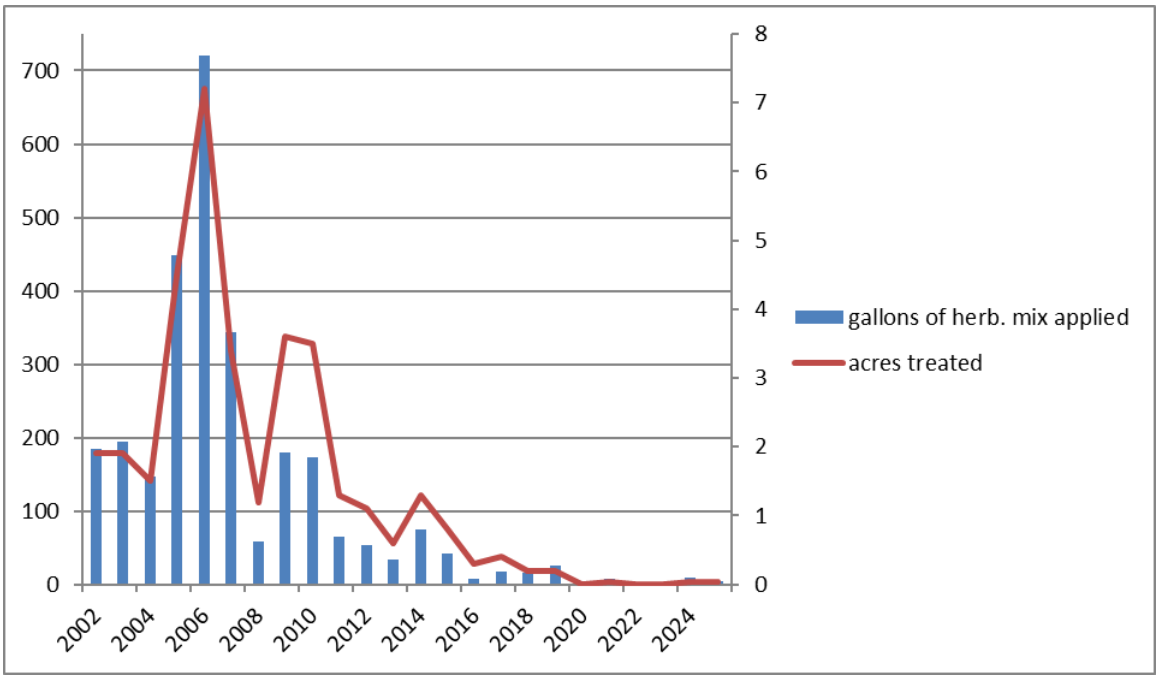

Figure 6 A graph showing the downward trend in herbicide applied and knotweed treated.

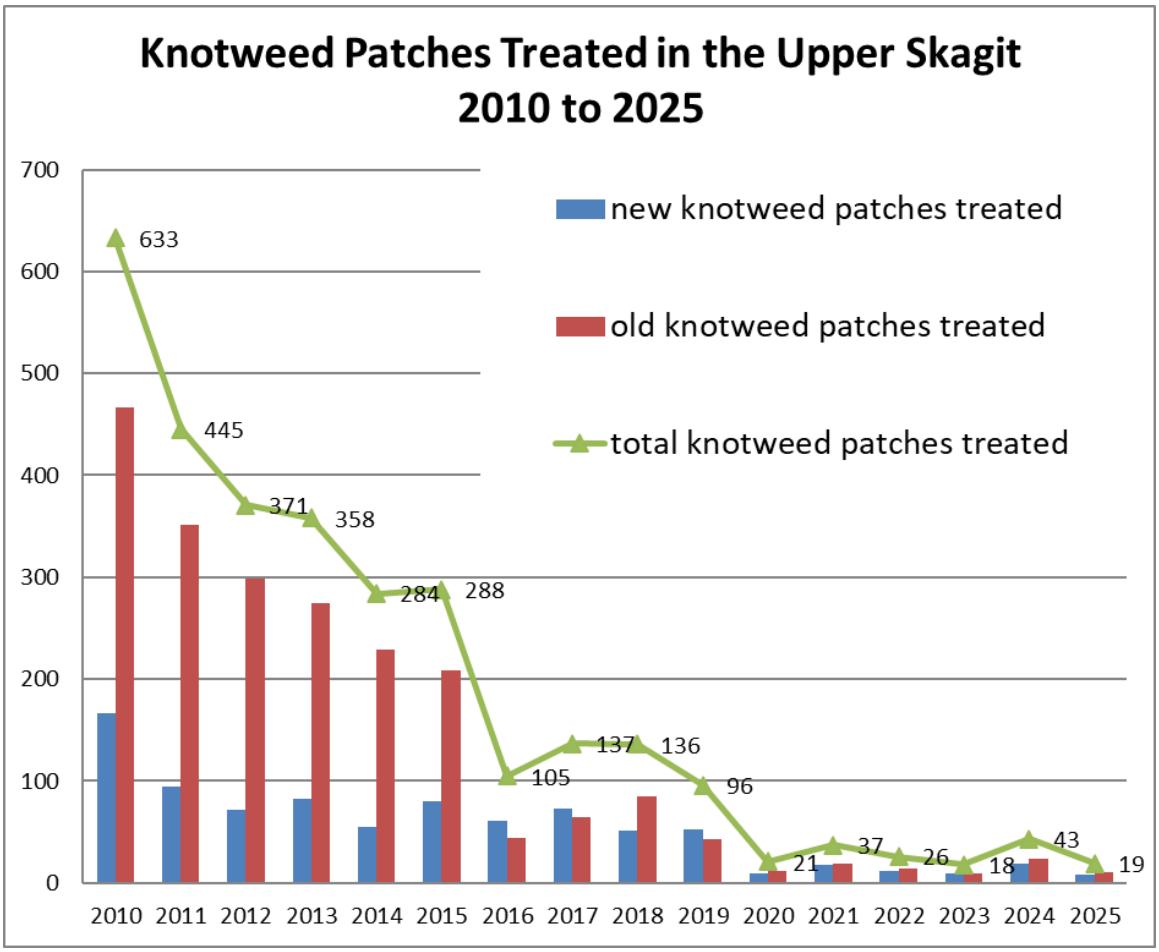

Figure 7 Knotweed patches treated, old versus new in previously surveyed areas of the Upper Skagit Watershed.

For the first seven years that SFEG led this program, the total number of knotweed patches treated decreased, and the total number of knotweed stems treated also continued a downward trajectory, albeit with more year-to-year variability (Figures 8 and 9). Since 2016 this relationship seems to have reached a plateau, with the number of knotweed stems treated closely following the number of knotweed patches treated. In 2024 this trend broke because SFEG found two large previously unknown patches that skewed the data. The largest was a 5,000 stem patch near Illabot Creek. It was presumed that this area was knotweed free, but SFEG surveyed through here in 2024 to confirm the theory and were proved wrong. There was also a 1,600 stem patch along the Upper Sauk upstream from the Whitechuck River. As treatment continues there will be shadow effects of these patches until they are eliminated and the trend between stems treated and patches treated resumes it's previous balance.

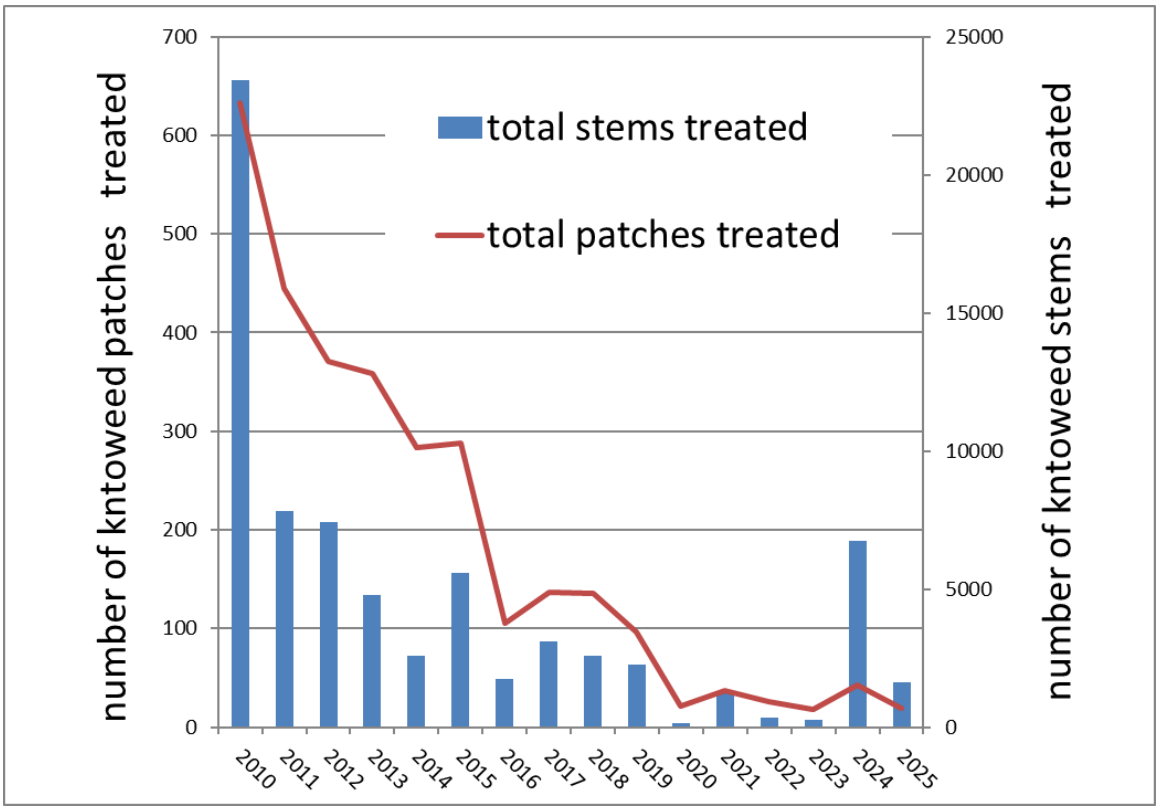

Figure 8 Knotweed stems treated in relation to total patches treated Upper Skagit Reach

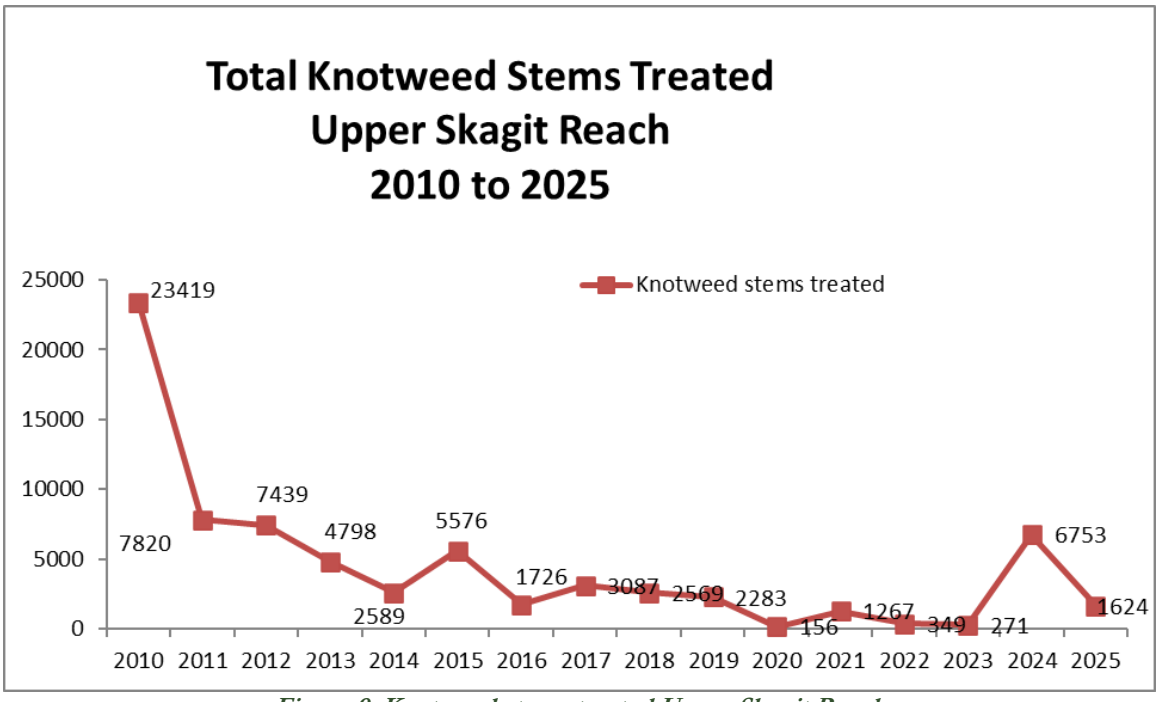

Figure 9 Knotweed stems treated Upper Skagit Reach

Survey and Treatment Techniques

Treatment techniques continue to follow Integrated Pest Management (IPM) methods and the Best Management Practices (BMPs) for knotweed treatment as discussed during the annual Skagit CWMA meetings. Currently, the treatment regimen considered to be most effective for knotweed is a foliar application of 1% imazapyr (aquatic formulation preferred) mixed with 1% Agridex as the adjuvant. SFEG applies this mixture utilizing 50-ounce handheld pump sprayers, or 4-gallon backpack pump sprayers depending on which is most appropriate for site conditions. Due to restrictions from the US Forest Service, we are not able to apply imazapyr every year. The Forest Service restrictions dictate that imazapyr application can only occur every other year. SFEG has decided that we will spray utilizing imazapyr based products in even numbered years and odd numbered years we will treat knotweed on Forest Service lands with a 5% glyphosate solution. In 2025 herbicide application took place from June 9th, 2025, through September 3rd, 2025. This timeline was chosen because research indicates that herbicide is most effective against knotweed once it has established its spring foliage push and has begun to translocate sugars produced in the leaves down into the roots. Knotweed is much easier to spot in the early spring, since it is one of the first plants to emerge, but herbicide effectiveness is diminished that when herbicide is applied too early in the season. It stunts growth but does not kill the rhizomes. This timeline was also chosen to align with the Washington Conservation Corps (WCC) crew availability.

Previously documented knotweed patches are located during field surveys by surveying transects in areas where knotweed is likely to spread; low lying areas in the floodplain prone to flooding, side channels, back-waters, etc. Knotweed patches treated the previous year are navigated to using a handheld GPS unit. SFEG prioritizes these previous years' treated points because they are the source of the monitoring data, as opposed to points that have been in the database for a decade and have not shown any knotweed activity since they were initially treated. Old points are still important because they signify past treated knotweed points, but SFEG does not use GPS to navigate to each one of these. If there is knotweed present it is observed while walking transects doing surveys. GPS location data is supplemented with aerial photos, topographic maps, and field notes. Status for previously identified patches is recorded in the field notebook and iPad. At the end of the field season all the points in the master database are updated with the most recent years status. During a survey when a new knotweed patch is identified, a unique patch identifier is assigned, and the location is recorded using a Garmin e-trex legend GPS unit. Patch location, status and viability data are collected on a standard Upper Skagit Knotweed Project field form. The patch is flagged with its unique patch identifier (Figure 11). Monitoring is conducted by taking photos of each patch treated, with the unique patch ID visible in the frame (Figure 12). Patches treated the previous

year are found, and updated data and photos of patch condition are collected.

2024 was the third year that SFEG also recorded all data digitally while in the field. Data was collected on an iPad mini running iForm, which is a platform that allows the user to customize a database for field collection of data. It is compatible with various other software to enable easy transfer of data between other programs and partner organizations. Digital data was first collected in 2022. As with all new procedures, there were some growing pains and inconsistencies in data management. In planning for this, SFEG also recorded data in the traditional manner- a field notebook. There continue to be inconsistencies between data collected digitally versus in the notebook. Until these inconsistencies are ironed out SFEG will continue to collect data digitally and hand write it in a notebook.

Figure 10 Unique patch identifier written on knotweed specific flagging.

Figure 11 Knotweed monitoring photo. Whiteboard identifies unique patch identifier, status and number of stems. Following the below naming convention patch MP2268G is the 34th patch of the 2022 season documented by SFEG. It is located along the left bank of the Skagit River.

For all new knotweed patches located the following was documented:

- Patch ID#: a unique identifier was assigned to each patch (each new patch was flagged with distinct stripped flagging and unique ID#)
  - ID# generation: first two letters are the river (Sauk = AP, Skagit = KP, MP = Middle Reach of Skagit) followed by the year first identified and sequential ID number (odd number right side river even number left side river). Lastly the organization making the documentation is the initial at the end of the sequence. In the above example patch MP2268G was first observed in the Middle Skagit (MP) reach in 2022 (22). It was the 34th patch observed on the left bank (68- since odd numbers are other side of river) of the season documented by SFEG (G)
- GPS coordinates
- Patch condition: Number of stems and patch area in square meters
- Herbicide use data (Time/date/location/wind/temp/waterbody/applicators/amount applied/ NPDES qualified)

For previously located knotweed patches the following was documented:

- Status: alive, dead, not found, washed away
- Patch condition: Number of stems and area in square meters
- Herbicide use data (Time/date/location/wind/temp/waterbody/applicators/amount applied/ NPDES qualified)

Acres treated

The differences between the Upper Skagit and Middle Skagit reaches are stark when one looks at the acres of knotweed treated. This metric measures the area of knotweed treated if all individual patches were to be combined into one aggregate patch. During data collection the smallest unit SFEG collects is one square meter, because this is much easier to wrap one's head around than 0.0002 acres. In 2025 the area treated in the Upper Skagit watershed was 201 square meters (0.06 acres). Area treated in the Middle Skagit reach was 958 square meters (0.24 acres).

Total area of knotweed treated by the Upper Skagit Knotweed Control program in 2025 was 1,159 square meters (.28 acres).

River miles surveyed and area protected

In 2025, SFEG staff, assisted by WCC crews, thoroughly surveyed 2,732 (4.27 square miles) acres within the floodplain of the Skagit River and Sauk Rivers. This area included habitats such as side channels, tributaries, back channels, islands, and riparian habitats. Included in this area was 20.4 miles of main stem river and tributaries. 13 miles along the Upper Sauk, 5 miles in the Middle Skagit reach and 2.4 miles in the Upper Skagit watershed above Rockport.

Number of Private Landowners Assisted

Much of the land within the Upper Skagit Knotweed Control Program area is public. All agencies with property within the project area are members of the Skagit CWMA and have given permission for SFEG to survey/treat knotweed on their lands. There is also the limitation that the National Fish and Wildlife Foundation funds can only be spent on US Forest Service property. Knotweed treatments that occur on private lands typically utilize WSDA funding. SFEG has WSDA 10-year access agreements signed by many private landowners, but most of these landowners do not have knotweed anymore, so SFEG does not spend the resources to do surveys on their property every year. As such, the number of private landowners we work with is fewer than one would expect for a program of this magnitude. In 2025 SFEG worked with two private landowners. We also worked with nine entities who own land. In 2025 SFEG worked with 11 landowners.

SFEG expects the number of private landowners assisted to grow over the next couple of years. As the knotweed control proposal was working its way through the lead entity process that is required with Recreation and Conservation Office (RCO) funding the Lead Entity Citizen Committee (LECC) actually added funding to the proposal with the stipulation that these funds be used for outreach about the knotweed control. Next year SFEG will have a project outreach plan in place. This will direct outreach activities as we aim to increase private landowner participation in the knotweed program, as well as inform the general population about this project that is taking place in their watershed.

Partners involved

The Skagit Cooperative Weed Management Area (CWMA) aka Knotweed Working Group includes 19 cooperators. The SFEG Stewardship Manager chaired this group until 2020 when leadership was transferred to Skagit County. SFEG is still an active participant and plays a leadership role, but all official duties have been transferred.

Members

- WA Dept. of Fish and Wildlife
- WA Dept. of Natural Resources
- North Cascades National Park
- Seattle City Light
- Snohomish Co. Weed Board
- Skagit Co. Weed Board
- Whatcom Co. Weed Board
- The Nature Conservancy
- Skagit Fisheries Enhancement Group
- Skagit Land Trust
- Samish Tribe

Partners

- WA Dept. of Agriculture
- U.S. Fish and Wildlife
- Washington Conservation Corps (WCC)
- WSU Extension
- National Fish and Wildlife Foundation

- Upper Skagit Tribe
- Sauk-Suiattle Tribe
- US Forest Service

Selected Photos from the Upper Skagit Knotweed Control Program 2025 Season

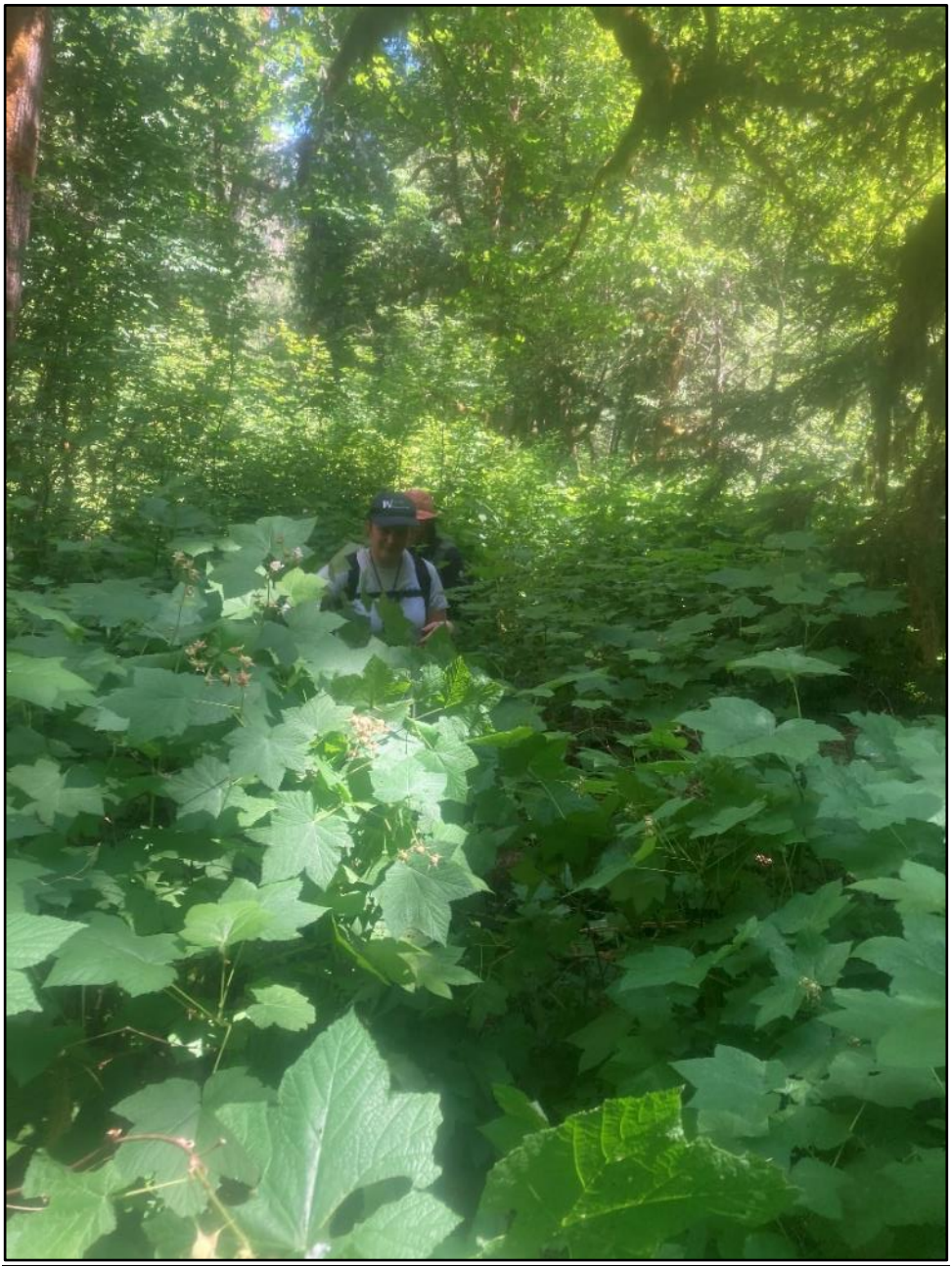

Figure 12 Much of the time spent surveying for knotweed is spent bushwhacking through the densely vegetated floodplain. 6/11/2025

Figure 13 Spraying a lone knotweed patch that had become established on a gravel bar. It's most likely this patch started from a plant fragment that washed in on high water. If left untreated this small unthreatening patch would break up and spread downstream during winter high water events. 6/24/2025

Figure 14 Large log jams like this are common in the Upper Sauk, because it is a pristine system. It is important to survey around these deposited log jams for knotweed because the same process that deposited the logs could also deposit knotweed fragments, which establish new colonies. 6/24/2025

Figure 15 Searching for knotweed is exhausting work. Sometimes when a patch is found it takes a while to gather people from the far end of the survey line. A WCC member takes advantage of this gathering time to recuperate. 6/24/2025

Figure 16 There are few river access points from roads in the upper portions of the watershed. Since ancient times rivers were the roadways. SFEG continues this tradition because watercraft is the most efficient way to reach many survey areas. And a four-day/three-night trip is the most efficient to reach the survey areas because there is the least travel over the same routes. 6/24/2025

Figure 17 WCC crew in a survey line transition from a gravel bar into established floodplain forest. 6/26/2025

Figure 18 Spraying a knotweed patch from the center out. SFEG does this to not walk through previously sprayed areas. This ensures the best possible coverage, but even with this method there are sometimes areas missed, especially in larger patches. That's one reason knotweed patches generally require follow-up treatments. 6/26/2025

Figure 19 Spraying a knotweed patch in a log jam at the edge of the Sauk River. 7/2/2025

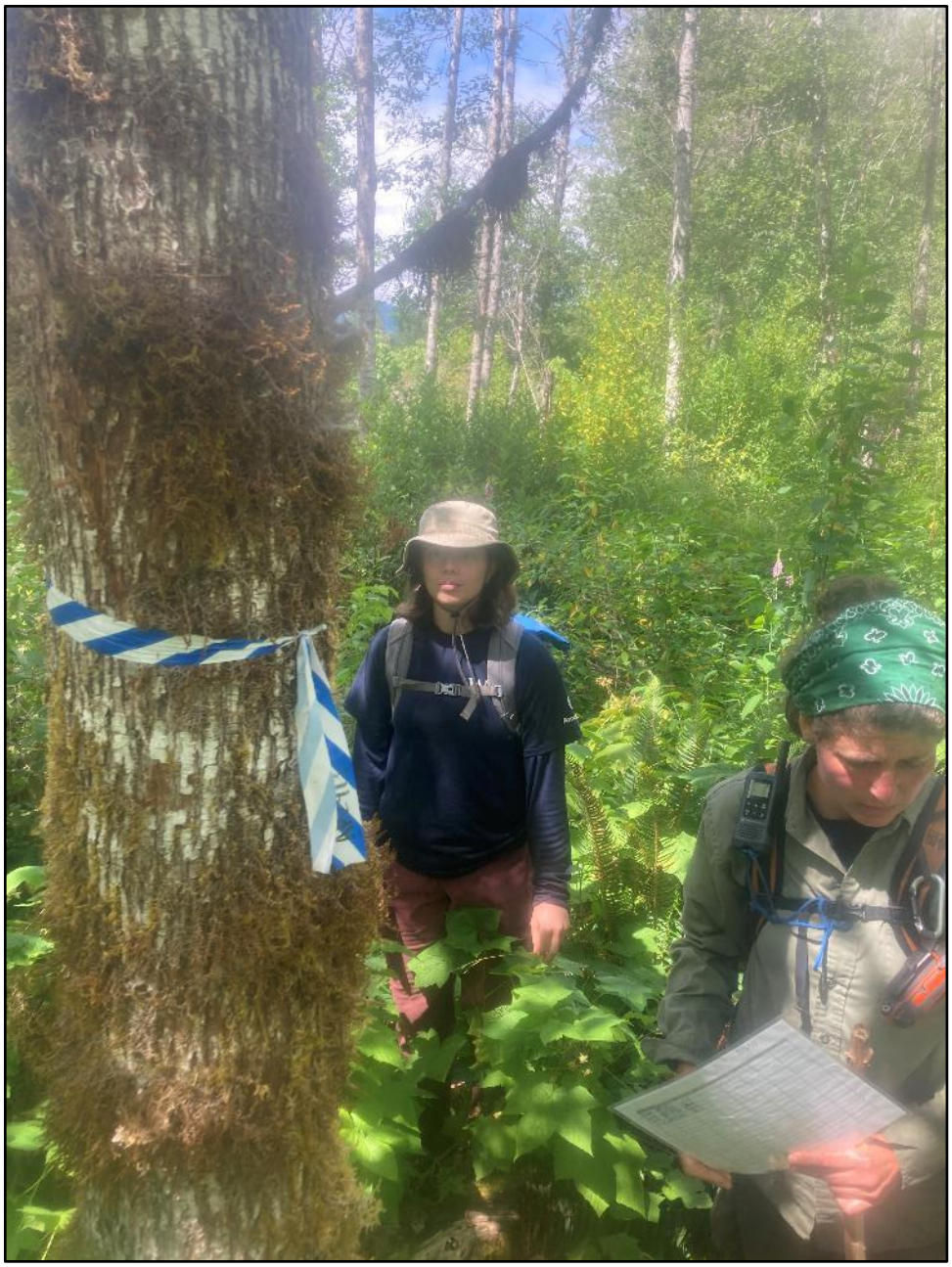

Figure 20 Blue and white striped flagging indicates that there was a knotweed patch here last year. 7/10/2025

Figure 21 Knotweed surveys often involve surveying along and crossing waterways since these floodplain features are part of the natural landscape and are valuable juvenile salmon rearing habitat. They are also places where knotweed becomes established because of the transport during high water events. 7/15/2025

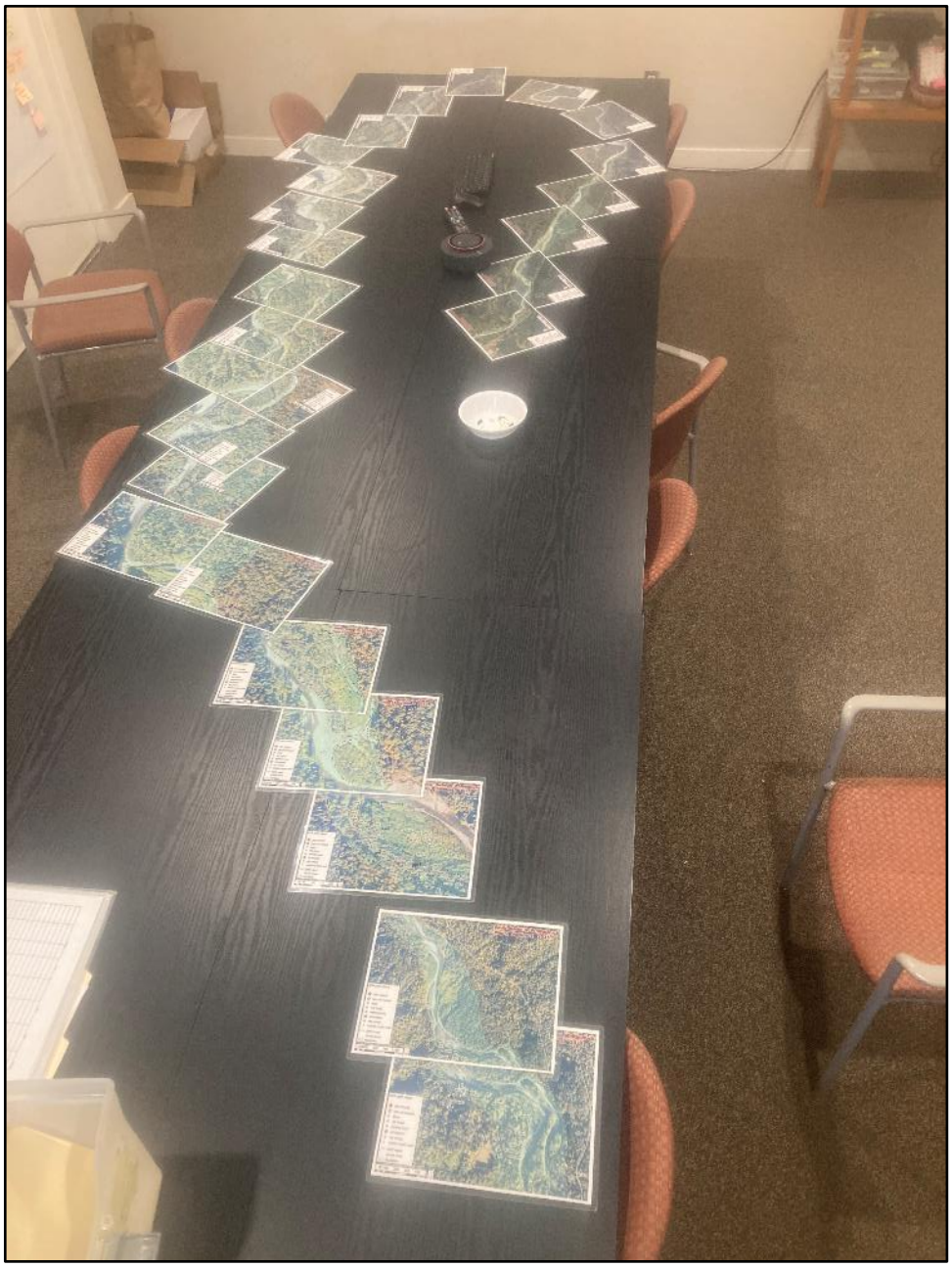

Figure 22 For the field work SFEG creates aerial photos of the river reach with previously documented knotweed patches shown. This layout represents the section of the Sauk River from Bedal downstream eight miles to the Whitechuck confluence. 7/29/2025

Figure 23 During knotweed surveys the crew is away from vehicles for the entire day. All necessary supplies are kept in a survey backpack. Herbicide supplies are kept in a separate, waterproof drybag backpack. Supplies are checked each morning before leaving the office and refilled as necessary. 8/7/2025

Figure 24 SFEG is very appreciative of the Skagit Cooperative Weed Management Area (CWMA) partners. They provide background, knowledge and resources when necessary. In this case Skagit County Noxious Weeds provided boat transport to a knotweed treatment location on an island that SFEG would not be able to access without their assistance. 8/11/2025

Figure 25 Knotweed patch A630B had 10 stems when it was treated in 2024. 6/24/2024

Figure 26 A year later knotweed patch A630B was dead. 6/28/2025

Figure 27 Knotweed patch AP928 had 32 stems in 2023 (no picture), In 2024 there was 1 remaining knotweed stem to be treated (above photo). 6/25/2024

Figure 28 Patch AP928 was dead when visited in 2025. It's typical for knotweed patches to require multiple years' worth of treatments. 6/24/2025

Figure 29 Knotweed patch AP1723 had 16 stems when it was treated in 2024. 7/1/2024

Figure 30 Patch AP1723 was dead when visited in 2025. 6/11/2025

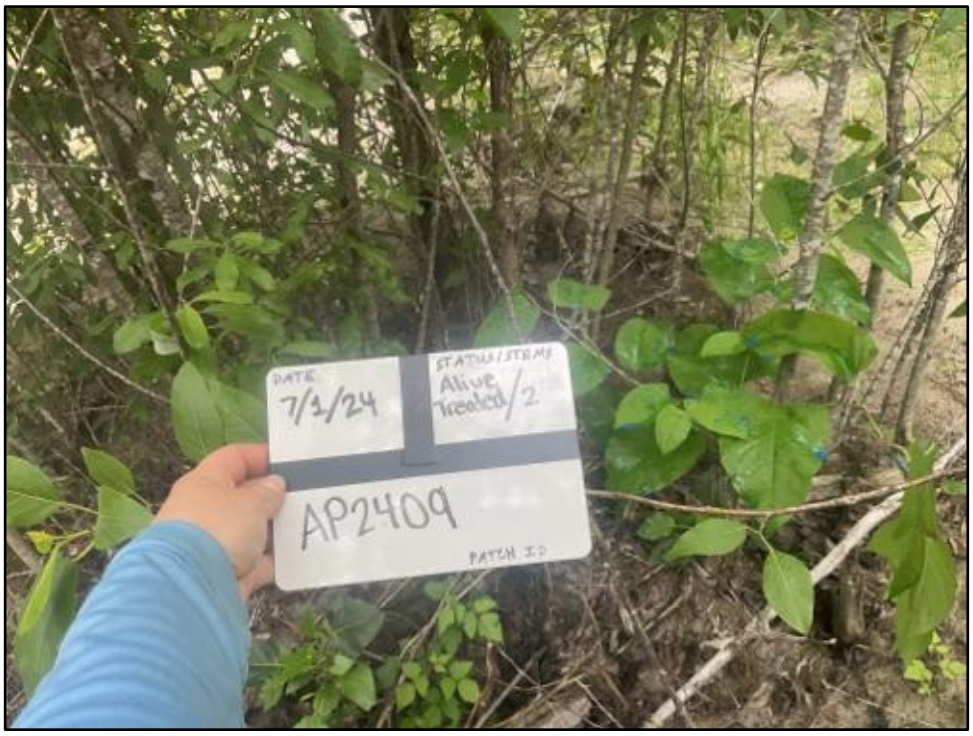

Figure 31 Knotweed patch AP2409 contained 2 stems when it was first encountered in 2024. 7/1/2024

Figure 32 When patch AP2409 was visited in 2025 it was dead. 6/11/2025

Figure 33 Knotweed patch MP20266G contained 30 stems that were treated. 8/13/2024

Figure 34 A year later patch MP20266G was dead.