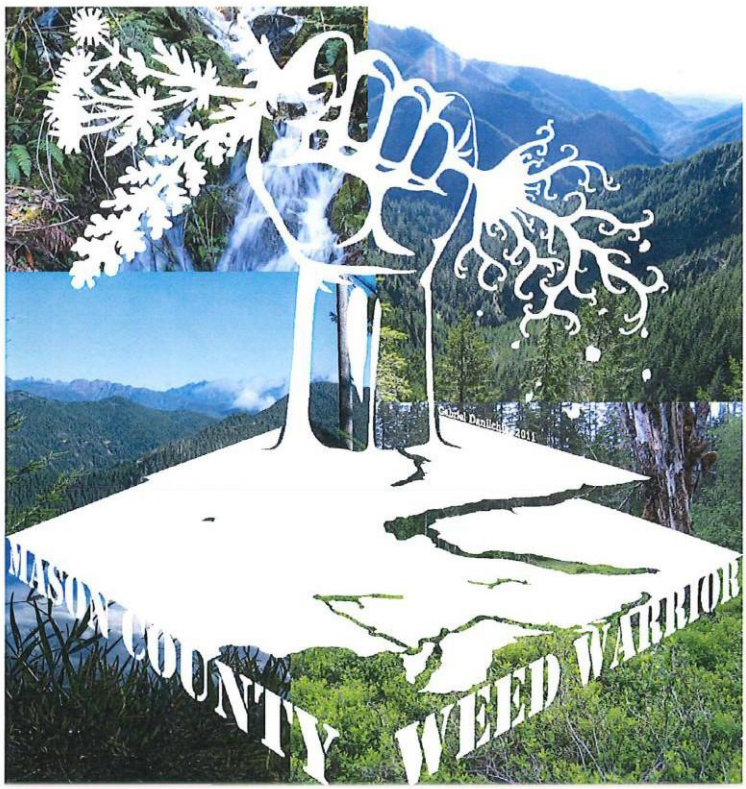


Olympic Peninsula Cooperative Noxious Weed Control 2014 Project Report

A Title II Participating Agreement between:
USDAFS Olympic National Forest
and
Mason County Noxious Weed Control Board

Report compiled by
Mason County Noxious Weed Control Board
Patricia Grover, Coordinator
Connor Cordray, Field Assistant

January 30, 2015

303 N. 4th St
Shelton, WA 98584
(360) 427-9670 extension 592

Table of Contents

Report Recipients

Susan Piper
Forest Wildlife Biologist & Botany and Invasive Plant Program Manager
Olympic National Forest
Supervisor's Office
1835 Black Lake Blvd, SW
Olympia, WA 98512

Cheryl Bartlett
Forest Botanist and Native Plant Program Coordinator
Olympic National Forest
1835 Black Lake Blvd, SW
Olympia, WA 98512

William Marneson
Olympic National Forest
1835 Black lake Blvd, SW
Olympia, WA 98512

Electronic Notification to online link:

Mason County Commissioners
Randy Netherlin
Tim Sheldon
Terri Jeffreys

Mason County Noxious Weed Control Board Members
David Robbins
Myrn Stewart
Susan F. Baker

A copy of this report will be posted to the Mason County WSU Extension website at:
http://ext100.wsu.edu/mason/natural-resources/mason-county-noxious-weed-control/mcnwcb-reports/
2014 Report

Acknowledgements

We'd like to acknowledge the support and cooperation from the following people and organizations. Thanks for your continued efforts in reducing the impacts of invasive plants and noxious weeds on the resources of Mason County!

Mason County Noxious Weed Control Board Assistant

Connor Cordray

WSU Mason County Extension

Lisa DeWall
Office Manager

Olympic National Forest

Susan Piper
Forest Wildlife Biologist & Botany and Invasive Plant Program Manager

Cheryl Bartlett
Forest Botanist and Invasive Plant Program Manager

Betsy Howell
Wildlife Biologist

Washington Conservation Corps

Darrell Borden and WCC crew
John Longsworth and PSC crew

EXECUTIVE SUMMARY

Project Goal:

Noxious weeds pose an environmental and economic threat to the citizens, ecosystems and productivity of Mason County's terrestrial and aquatic natural resources. Nearly 21% of Mason County's land base, or just over 127,000 acres, is located within the Olympic National Forest (ONF). It is the goal of this Participating Agreement to build a framework on which the ONF, Mason County and other community stakeholders can build a collaborative noxious weed control effort.

The Mason County Noxious Weed Control program will continue to leverage participation at community events to provide noxious weed education to the public as a key component of the program. This emphasis on education and prevention will integrate with "Early Detection, Rapid Response" (EDRR) to further a coordinated and efficient approach to the protection of Mason County's resources from the adverse effects of invasive plants.

Project Overview:

Since 2005, Title II funding has been instrumental in the development of a noxious weed control program in Mason County. As an active participant in the protection of ONF lands from the threat of invasive plant species, program staff works to locate and treat noxious and invasive plant infestations within, and adjacent to, the Olympic National Forest. Cooperation and collaboration between federal and local governments are among the goals of the Title II program of the Secure Rural Schools Act. These funds have provided the Mason County Noxious Weed Control Board (MCNWCB) the opportunity to develop the capacity to undertake projects which require the availability of field going expertise, labor and equipment; resources which would not be available with current county funding.

Funding from these agreements has provided for public education and outreach at multiple county events, surveying and monitoring of noxious weed infestations adjacent to Forest Service lands and has initiated the process of seeking landowner compliance with RCW 17.10.

Title II funding continues to provide employment to several local residents and training opportunities to county staff, partners, and volunteers.

2014 Project Goals:

- Control invasive plants within special project areas.
- Control invasive plants on roads scheduled for decommissioning.
- Control invasive plants in areas planned for future forest management activities.
- Survey for and treat invasive species in rock sources within the Olympic National Forest.

- Control invasive plants in campgrounds, at trailheads and other frequently visited sites.
- Revisit previously controlled sites and perform necessary follow-up control work.
- Identify and treat new populations utilizing Early Detection and Rapid Response (EDRR).
- Conduct surveys of and provide technical expertise to privately owned rock sources in Mason County.
- Build new relationships with other agencies, citizens, businesses and non-profits in Mason County.

2014 Resources:

- Mason County Noxious Weed Control Board Coordinator (20 hours/week, 4.0 months)
- MCNWCB Field Assistants (1 @ 40 hours/week for 5 months)
- Washington Conservation Corp crew - 1 week
- Puget Sound Corp crew – 2.5 months working throughout Mason County

2014 Accomplishments:

- Treated, either manually or with herbicide, approximately **172** weed-infested acres within the ONF.
- Completed and submitted **87** paper accomplishment forms for the Forest Activity Tracking System (FACTS) database, **20** monitoring reports and **1** inventory form. In addition, site specific notes and recommendations were included for many locations.
- Participated in **5** public events, resulting in over **1,000** contacts with Mason County residents or visitors.
- Current agreements with the Washington State Department of Natural Resources and Green Diamond Resource Company provided for opportunities to survey for, and implement control measures for, invasive species on lands adjacent to National Forest land.
- Completed annual project report.

PROJECT SUMMARY

Project Goal

Noxious weeds pose an environmental and economic threat to the citizens, ecosystems and productivity of Mason County's terrestrial and aquatic natural resources. Nearly 21% of Mason County's land base, or just over 127,000 acres, is located within the Olympic National Forest (ONF). It is the goal of this Participating Agreement to build a framework on which the ONF, Mason County and other community stakeholders can build a collaborative noxious weed control effort.

The Mason County Noxious Weed Control program will continue to leverage participation at community events to provide noxious weed education to the public as a key component of the program. This emphasis on education and prevention, integrated with "Early Detection, Rapid Response" (EDRR), works to further create a coordinated and efficient approach to the protection of Mason County's resources from the adverse effects of invasive plants.

Project Overview

Since 2005, Title II funding has been instrumental in the development of a noxious weed control program in Mason County. As an active participant in the protection of ONF lands from the threat of invasive plant species, program staff works to locate and treat noxious and invasive plant infestations within, and adjacent to, the Olympic National Forest. Cooperation and collaboration between federal and local governments are among the goals of the Title II program of the Secure Rural Schools Act. These funds have provided the Mason County Noxious Weed Control Board (MCNWCB) the opportunity to develop the capacity to undertake projects which require the availability of field going expertise, labor and equipment; resources which would not be available with current county funding.

Funding from these agreements has provided for public education and outreach at multiple county events, surveying and monitoring of noxious weed infestations adjacent to Forest Service lands and has initiated the process of seeking landowner compliance with RCW 17.10.

Title II funding continues to provide employment to several local residents and training opportunities to county staff, partners, and volunteers.

Extensive invasive plant survey work took place on National Forest lands in the mid 1990's. This work became the foundation of the *Olympic National Forest Final Environmental Impact Statement and Record of Decision Beyond Prevention: Site-Specific Invasive Plant Treatment Project* (March 17, 2008). This analysis incorporated the best available science related to invasive plant management on National Forest system lands and is tiered to the *Pacific*

Northwest Invasive Plant Program Final Environmental Impact Statement (R6 2005 FEIS). County Weed Boards, a Forest Service crew and a Washington Conservation Corps (WCC) crew are now actively involved with treatments prescribed by ONF personnel. Control priorities are based on a matrix of criteria which includes ecological impact, new infestations of aggressive species, treatment in areas of high public use and infestation potential (e.g. parking lots, campgrounds, trailheads, horse camps, gravel pits) and containment/control of existing large infestations of species with focus on boundaries of infestation. For known sites, the emphasis is on controlling high priority noxious weeds (Appendix E) in areas with high potential to spread, such as rock sources or campgrounds, or in particularly fragile, sensitive environments such as Botanical Areas.

On non-Forest Service lands, which may include other federal lands, state, county and private lands, the emphasis continues to be in areas where uncontrolled noxious weed populations are spreading and hindering coordinated control activities. The MCNWCB provides a link to private landowners whose weeds threaten federal lands. Program goals include public education, monitoring infested sites, surveying for new noxious weed infestations, seeking both private and public landowner compliance with RCW 17.10 and WAC 16-750 and assisting other public agencies with their efforts to control noxious weeds.

Work has been accomplished by various individuals and crews. This has included the MCNWCB coordinator and assistant, both working part-time with funding available through this agreement. In addition, the WCC crews under the direction of MCNWCB personnel have been instrumental in achieving program goals.

Mason County Noxious Weed Control program 2014 Snapshot	
Number of known weed species (2014 Weed List)	55
Number of regulated species	28
Most common regulated weeds	tansy ragwort, knapweeds, hawkweeds, giant hogweed
Least common regulated weeds	blueweed, shiny geranium, common reed
Most common treated weeds	tansy ragwort, giant hogweed, bohemian knotweed, scotch Broom
Educational Events	5
Public contacts at educational events	1,000
Noxious Weed Scripts for KMAS radio	5
County funding for Noxious Weed program (General fund)	$22,096.00

Giant hogweed

Tansy ragwort

Bohemian knotweed

Scotch broom

2014 Project Description

A preseason work session was held at the Hood Canal Ranger District office in Quilcene, WA on May 6, 2014 with Forest Service personnel, Mason County and Clallam County Noxious Weed Control Board coordinators all present. A project work plan was developed by the Forest Service that established priority sites and species for the season (Appendix A). The planned work involved treating and monitoring previously identified weed infestations on Forest Service land. The Forest Activity Tracking Sheet (FACTS) form was used to document manual or chemical treatment. Treatment reporting was based on a unique "Reference Number", assigned within Project Areas. Monitoring to determine treatment efficacy was completed by MCNWCB personnel on approximately 20% of MCNWCB treated acres (Appendix I, example of Monitoring form).

For a second year, MCNWCB staff provided training in noxious weed identification, field safety, and integrated vegetation management (IVM) techniques to a Puget Sound Corps (PSC) crew as part of the Washington State Department of Natural Resource's Puget Sound Corps Initiative. This initiative was a component of the state legislature's jobs bill which sought to protect Puget Sound and provide employment and training opportunities. The Department of Ecology's WCC supplied the field crew for the project from July through September and MCNWCB staff provided oversight.

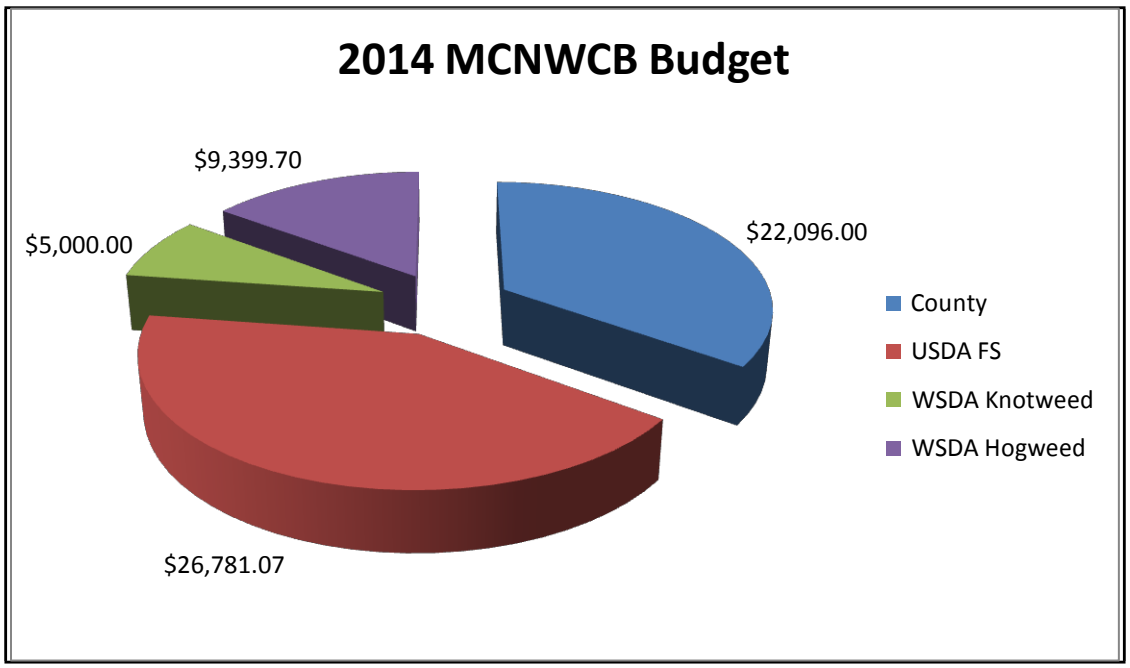
The 2014 PSC crew provided nearly 2500 hours of invasive species control within Mason County. The crew was an integral part of noxious weed control work on private, trust, state, county, city and federal lands within Water Resource Inventory Area's (WRIA) 14, 15 and 16. This year's crewmembers had very little natural resource experience and little plant identification knowledge. As a result, the crew required additional training and MCNWCB staff time to develop the skills necessary for effective noxious weed control. Despite an already short term of employment and absences due to fire assignments, the crew accomplished noxious weed control work on 58 parcels of land and over 170 acres in Mason County.

Figure 1: PSC crew at Hope Island, a state park located in Mason County.

In a letter dated June 25, 2014, Michael Hutchins, ONF's natural resources staff officer, signing for Forest Supervisor Reta Laford authorized the Mason County Noxious Weed Control Board to use the PSC crew to accomplish invasive weed treatments on the forest (Appendix K). The crew,

working under the guidance of the MCNWCB assisted in accomplishing projects in the Lake Cushman, Skokomish River and Hamma Hamma River areas. In addition, the PSC crew undertook manual removal of noxious weeds in areas which reduced the density of noxious weeds, and subsequent seed production, along access routes to the National Forest. These areas included Mason County's Skokomish Valley Road, Forest Service Road 2300 located within Green Diamond Resources land and Forest Service Road 2400 located within Washington Department of Natural Resources land.

Limited county funding continues to restrict the program's ability to survey for noxious weeds and achieve compliance from landowners with regulated noxious weed infestations. Funding for the Mason County Noxious Weed Control program currently supports a part-time (0.3 FTE) coordinator. Title II under the Secure Rural Schools Act has provided financial support which has enabled the County Noxious Weed Control program to develop the capacity for pursuing other funding opportunities.



In 2014, treatments on Forest Service lands continued to be prioritized as follows:

- Control weeds on roads scheduled for decommissioning.
- Control weeds in quarries and other rock sources on National Forest land.
- Control weeds in special project areas such as wildlife forage enhancement areas.
- Control weeds in campgrounds, trailheads and other heavily used sites.
- Revisit previously controlled sites and perform necessary follow-up control work.
- Identify and treat new populations (EDRR), identified by Forest Service or MCNWCB personnel.

2014 Project Resources and Performance

The number of staff/participants, the amount of time devoted to this project, and tasks completed were:

- **Supervisor (MCNWCB coordinator): 20 hours/week, for 4.0 months, licensed applicator**
  - Supervised and administered the project
  - Provided crew training, technical information and support; and planned and supervised most field treatments
  - Participated in an end-of the year meeting for 2013's field season and in a beginning of the year planning meeting with Forest Service staff
  - Completed end-of-season reporting and planning for 2015 field season

- **Program Assistant: 40 hours/week for 5.0 months, licensed applicator**
  - Responsible for daily preparation for field activities
  - Reviewed, finalized and submitted 87 FACTS forms for all treated sites
  - Participated in an end-of the year meeting for 2013's field season and in a beginning of the year planning meeting with Forest Service staff
  - Provided crew training, technical information and support

2014 Project Accomplishments

In 2014 over 170 acres of noxious weeds were treated by MCNWCB personnel.

County staff completed the majority of the treatments with support from a WCC crew and a PSC crew. Appendix B summarizes types of treatment and specific weed species treated.

2014 Accomplishments

Acres Treated	**172**
New Sites located and/or treated	**2**

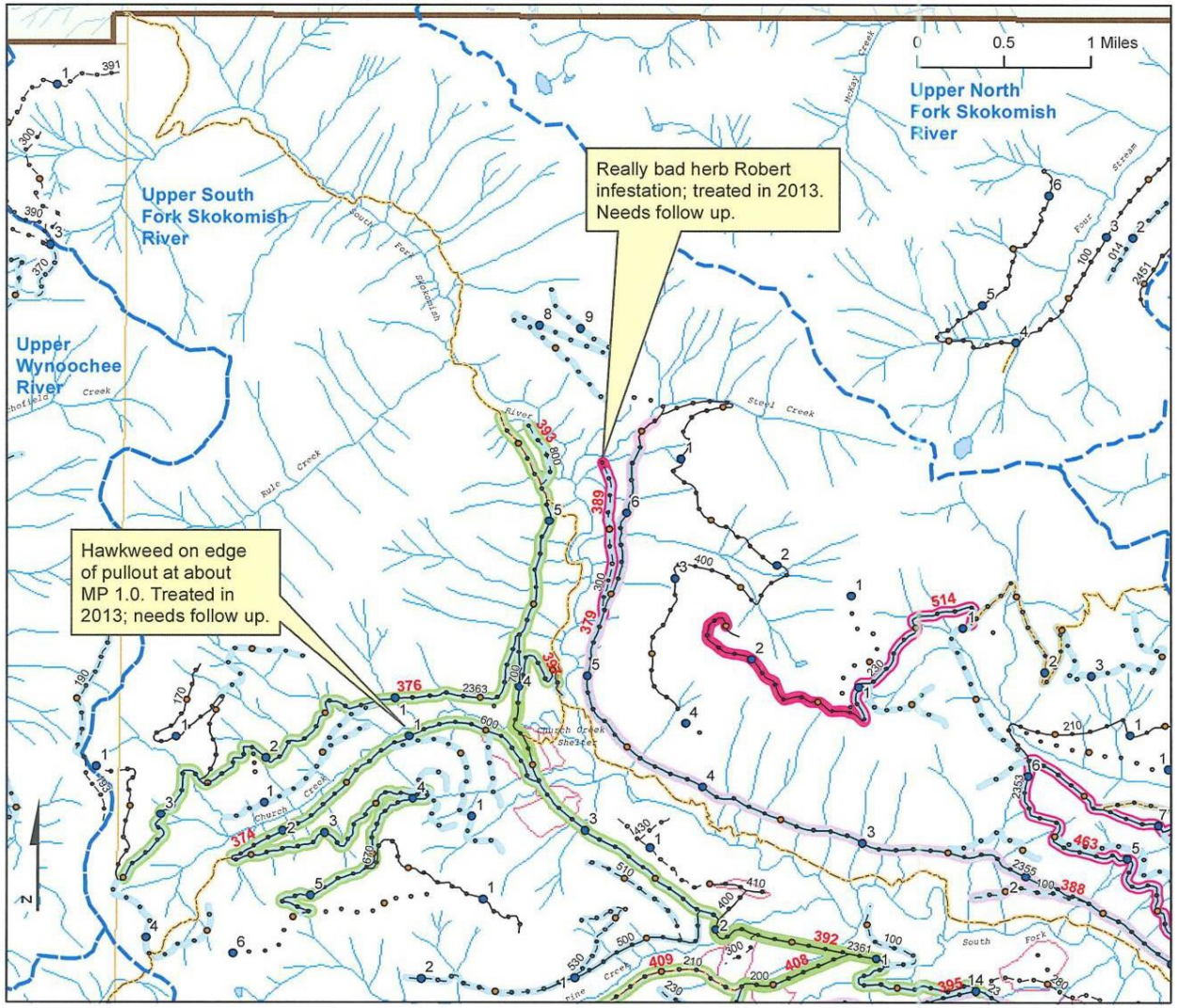
2014 Rock Pits Inspected/Treated

Rock Source	Option A Rock Source Exceeds Requirements	Option B Rock Source Meets Requirements	Option C Rock Source Meets Minimum Requirement	Treatment (Manual)	Treatment (Herbicide)
Cushman Pit		5/29/2014			5/29/2014
V1043 Quarry		6/9/2014			6/9/2014
Brown Creek Quarry			5/13/2014		5/13/2014 5/20/2014
Hamma Hamma Pit					5/15/2014 7/7/2014 9/17/2014
23 RD Deep Patch Borrow Site			6/9/2014		6/9/2014
23 RD Rock Stockpile					8/21/2014

WORK PLAN MAPS

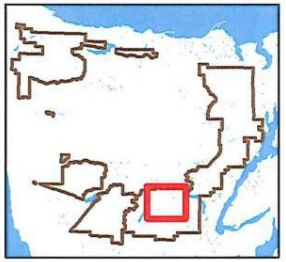
The following ten maps were created by Forest Service personnel and depict the various areas of National Forest land within Mason County where noxious weed control activities were prescribed in 2014. Callout boxes provide valuable information pertaining to species, degree of infestation, road closures, et.

Olympic National Forest FY 2014 Invasive Plant Program
Map 30. Mason County: Upper South Fork Skokomish River

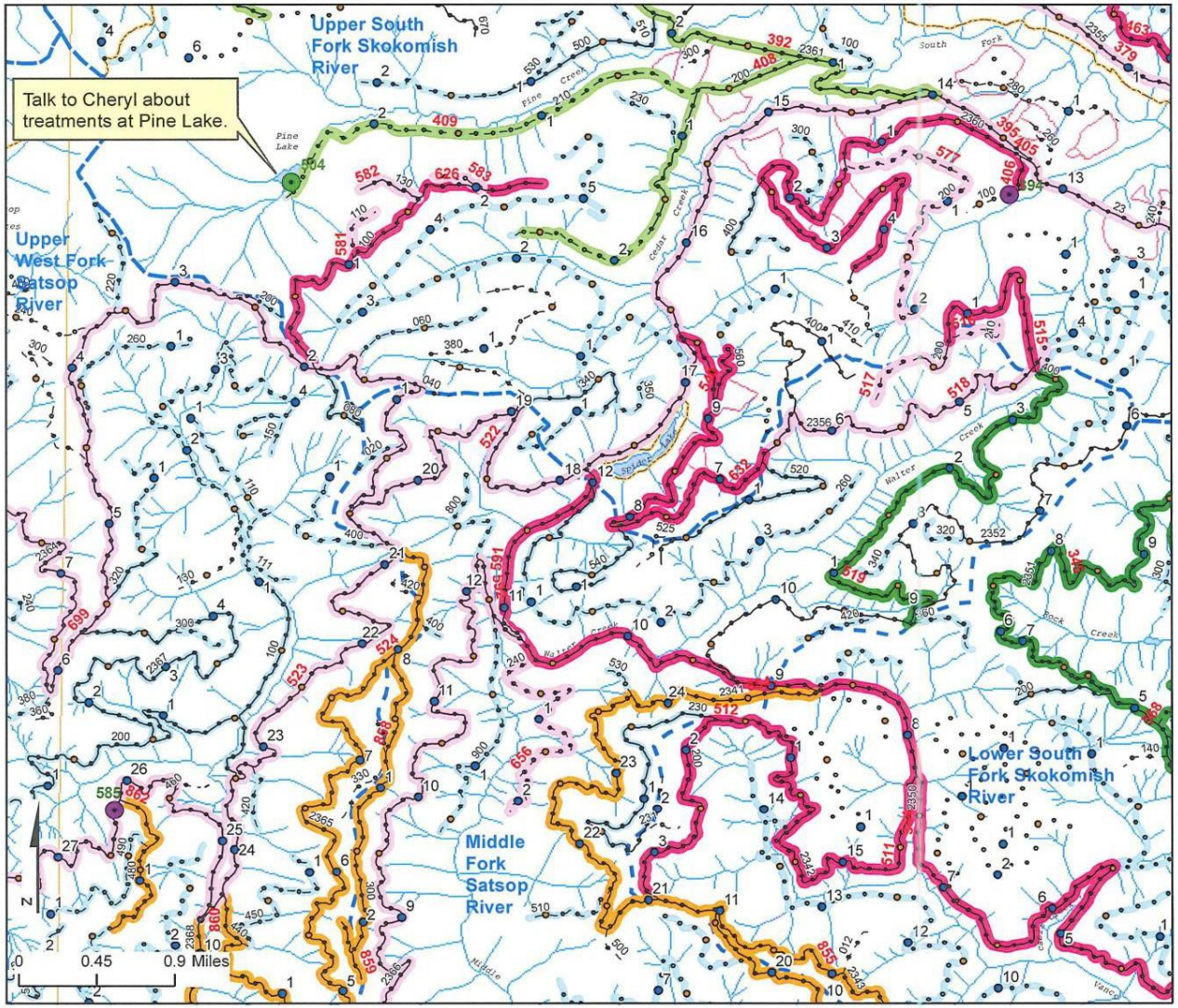


- County, Priority 1A
- County, Priority 1
- County, Priority 2
- FS, Priority 1A
- FS, Priority 1
- FS, Priority 2
- Survey
- Open Road, primary
- Open Road, secondary
- Closed Road
- 0.1 Milepost
- 0.5 Milepost
- 1.0 Milepost
- High Risk Road
- Trail - Forest Service
- Timber Sale Units
- Watershed Boundary
- Olympic NF Boundary

Red numbers
Ref # for roads
Green numbers
Ref # for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

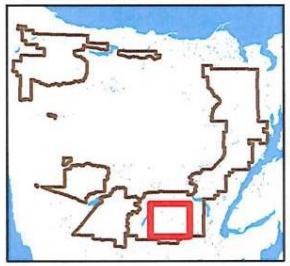


Olympic National Forest FY 2014 Invasive Plant Program
Map 31. Mason County: Satsop and South Fork Skokomish River

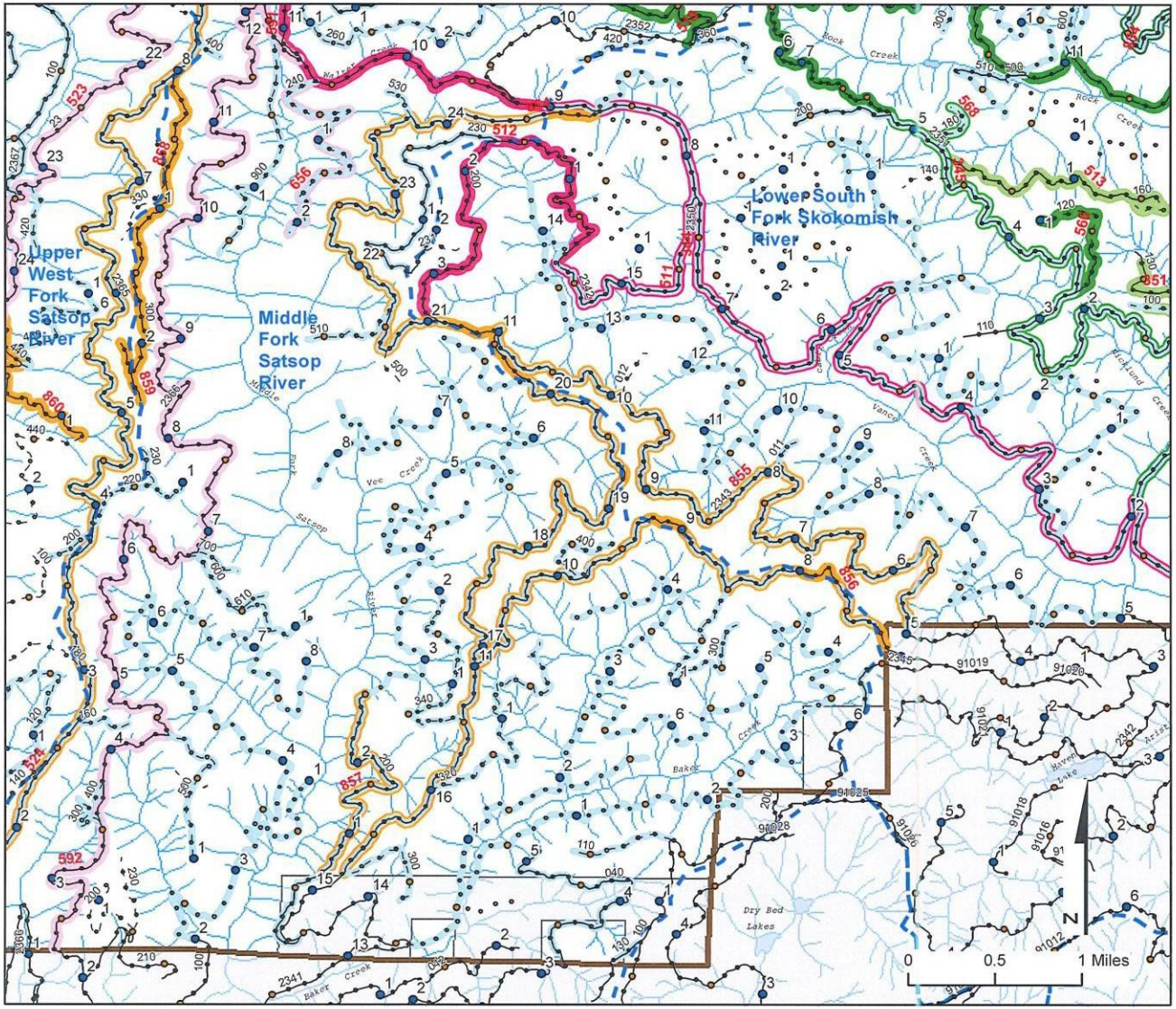


- County, Priority 1A
- County, Priority 1
- County, Priority 2
- FS, Priority 1A
- FS, Priority 1
- FS, Priority 2
- Survey
- Open Road, primary
- Open Road, secondary
- Closed Road
- 0.1 Milepost
- 0.5 Milepost
- 1.0 Milepost
- High Risk Road
- Trail - Forest Service
- Timber Sale Units
- Watershed Boundary
- Olympic NF Boundary

Red numbers
Ref # for roads
Green numbers
Ref # for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

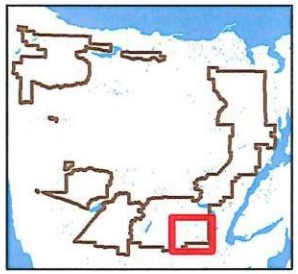


Olympic National Forest FY 2014 Invasive Plant Program
Map 32. Mason County: Lower Satsop and South Fork Skokomish River

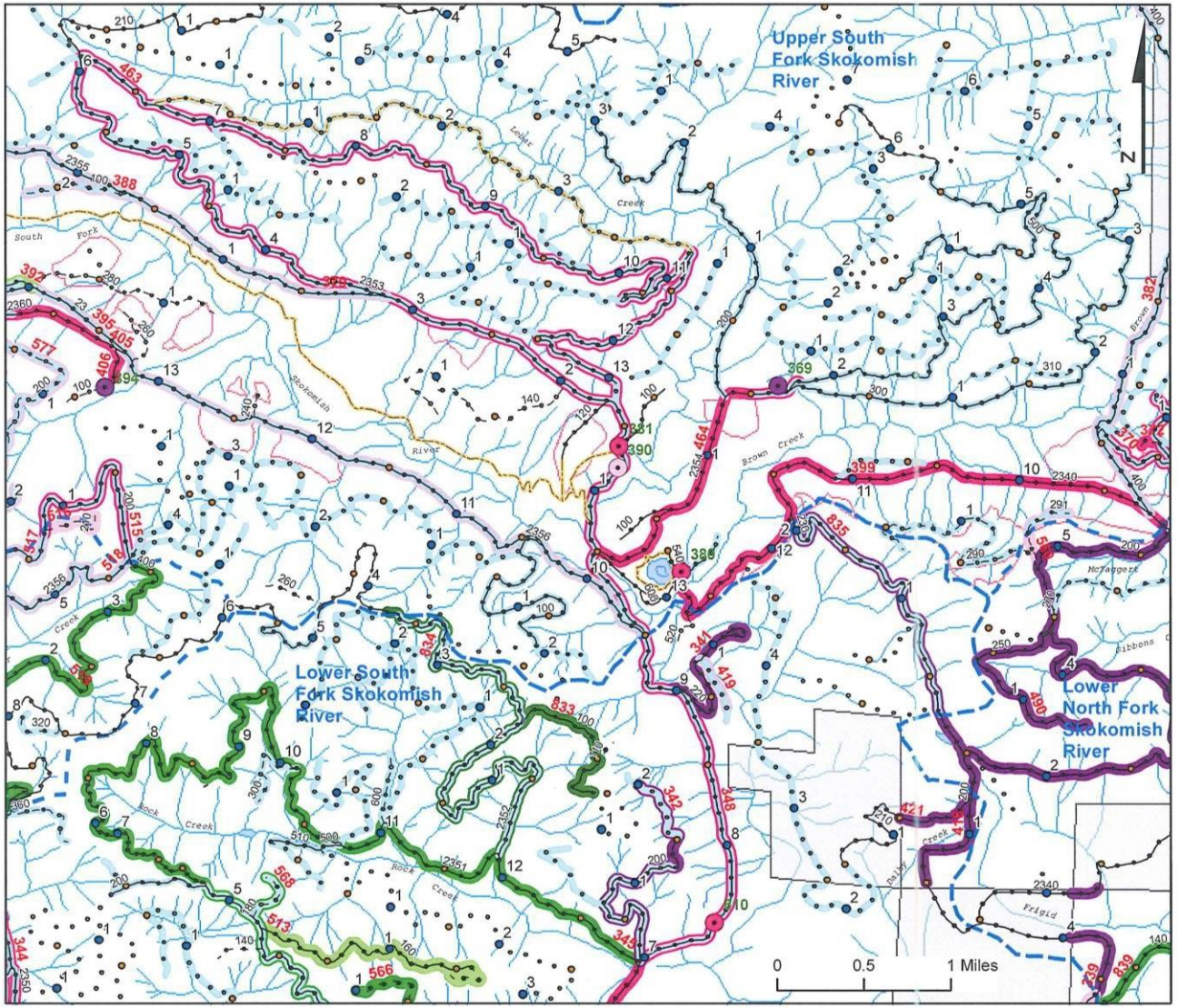


- County, Priority 1A
- County, Priority 1
- County, Priority 2
- FS, Priority 1A
- FS, Priority 1
- FS, Priority 2
- Survey
- Open Road, primary
- Open Road, secondary
- Closed Road
- 0.1 Milepost
- 0.5 Milepost
- 1.0 Milepost
- High Risk Road
- Trail - Forest Service
- Timber Sale Units
- Watershed Boundary
- Olympic NF Boundary

Red numbers
Ref # for roads
Green numbers
Ref # for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

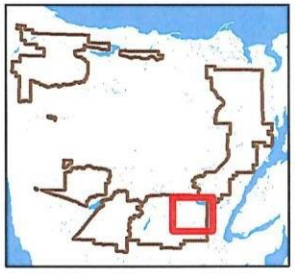


Olympic National Forest FY 2014 Invasive Plant Program
Map 33. Mason County: Upper South Fork Skokomish River East

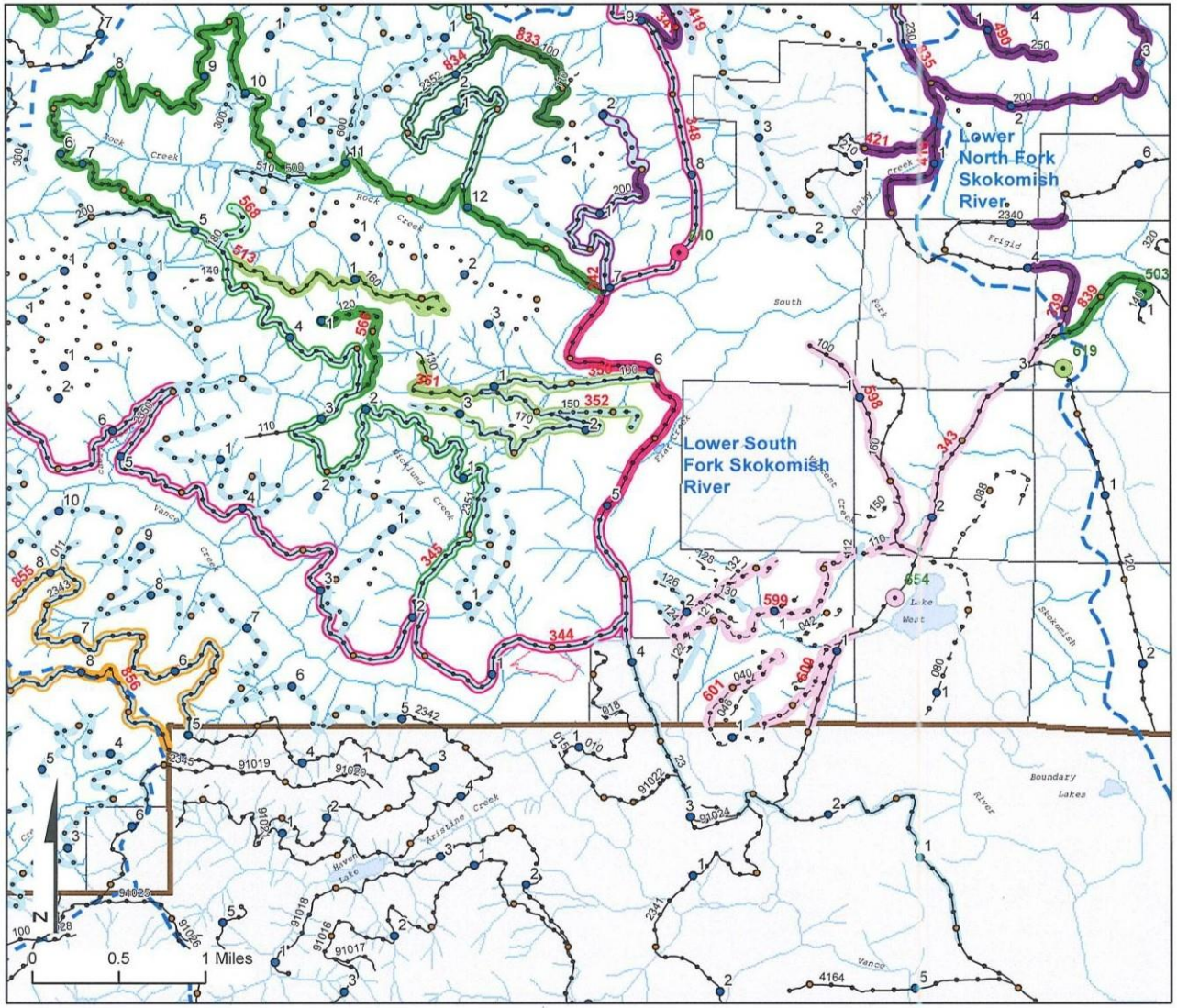


ounty, Priority 1A
ounty, Priority 1
County, Priority 2
S. Priority 1A
S. Priority 1
FS, Priority 2
Survey
Open Road, primary
Open Road, secondary
Closed Road
0.1 Milepost
0.5 Milepost
1.0 Milepost
High Risk Road
Trail - Forest Service
Timber Sale Units
Watershed Boundary
olympic NF Boundary

Red numbers
Ref # for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

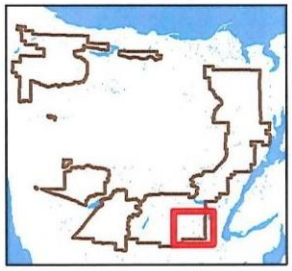


Olympic National Forest FY 2014 Invasive Plant Program
Map 34. Mason County: Lower South Fork Skokomish River

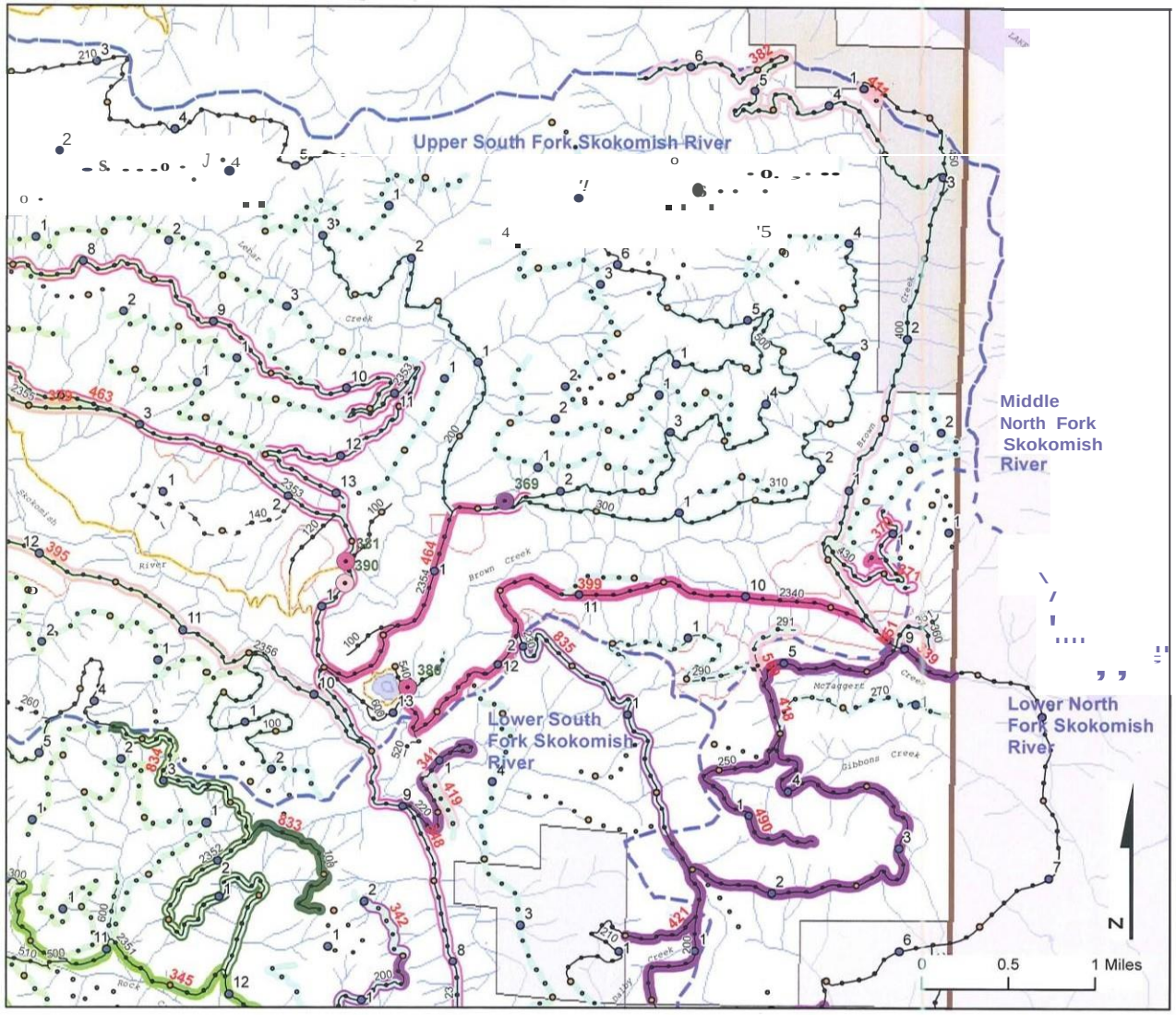


ounty, Priority 1A
ounty, Priority 1
County, Priority 2
S. Priority 1A
S, Priority 1
FS, Priority 2
Survey
Open Road, primary
Open Road, secondary
Closed Road
0.1 Milepost
0.5 Milepost
1.0 Milepost
High Risk Road
Trail - Forest Service
Timber Sale Units
Watershed Boundary
olympic NF Boundary

Red numbers
Ref# for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

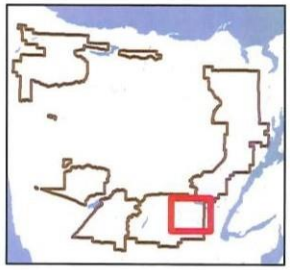


Olympic National Forest FY 2014 Invasive Plant Program
Map 35. Mason County:North and South Fork Skokomish River

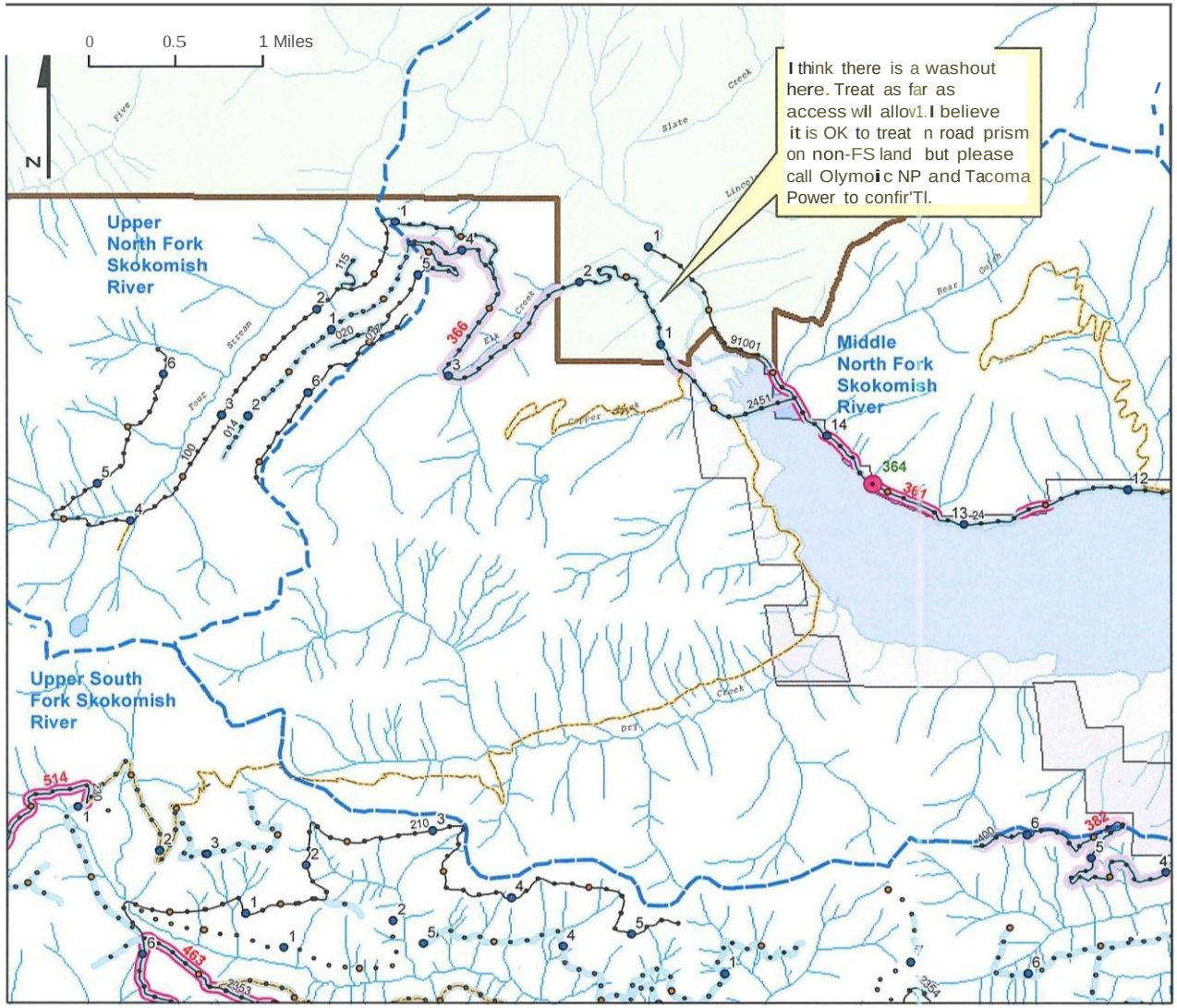


ounty, Priority 1A
ounty, Priority 1
County, Priority 2
S. Priority 1A
FS, Priority 1
FS, Priority 2
Survey
Open Road, primary
Open Road, secondary
Closed Road
0.1 Milepost
0.5 Milepost
1.0 Milepost
High Risk Road
Trail - Forest Service
Timber Sale Units
Watershed Boundary
olympic NF Boundary

Red numbers
Ref# for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name



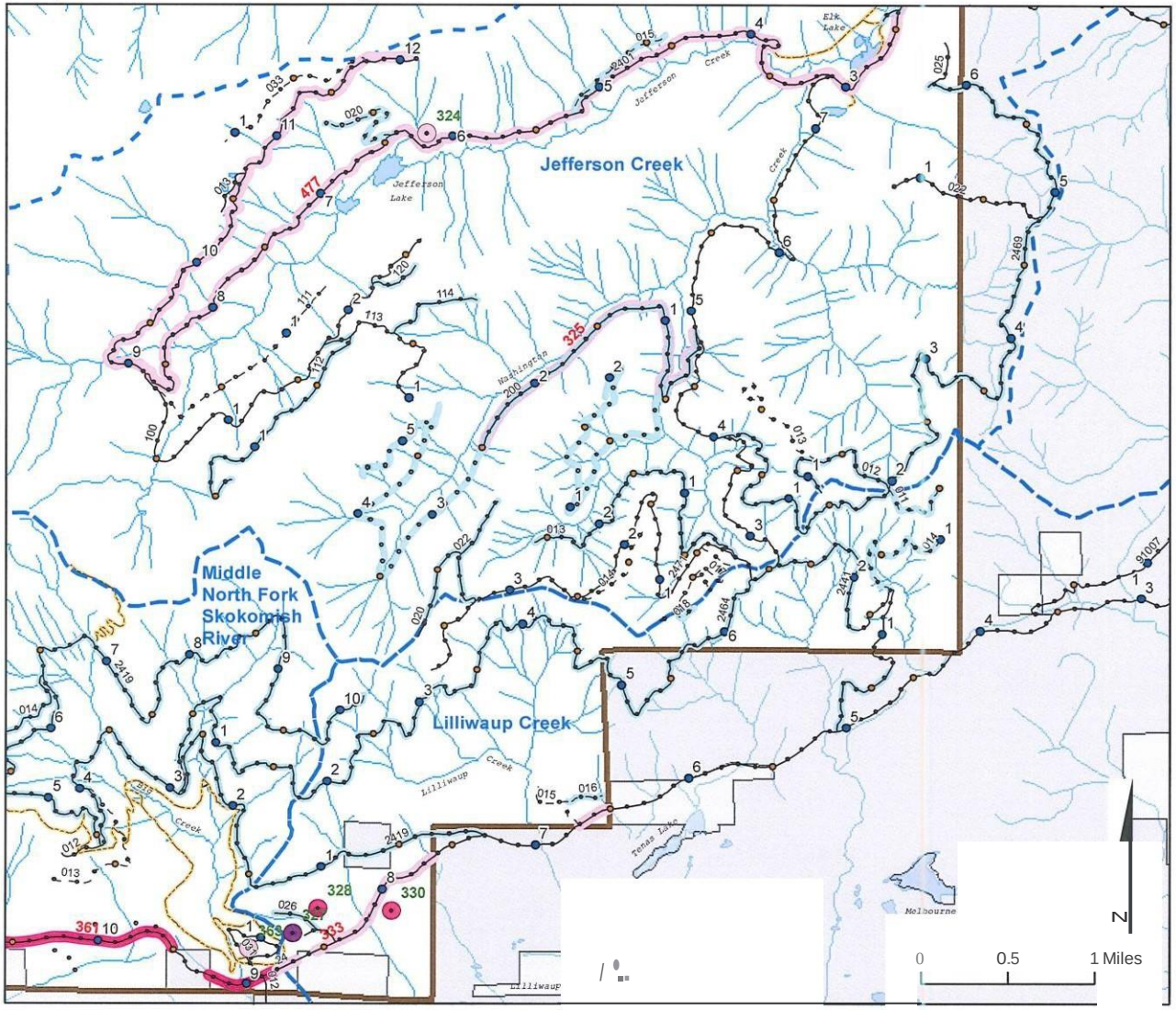
Olympic National Forest FY 2014 Invasive Plant Program
Map 36. Mason County: Upper North Fork Skokomish River



County, Priority 1A
County, Priority 1
County, Priority 2
FS, Priority 1A
FS, Priority 1
FS, Priority 2
Survey
Open Road, primary
Open Road, secondary
Closed Road
0.1 Milepost
0.5 Milepost
1.0 Milepost
High Risk Road
Trail - Forest Service
Timber Sale Units
Watershed Boundary
Olympic NF Boundary

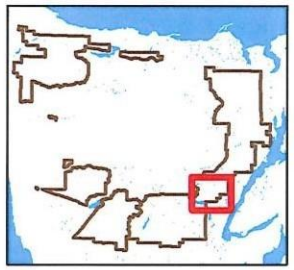
Red numbers
Ref# for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

Olympic National Forest FY 2014 Invasive Plant Program
Map 37. Mason County: Jefferson Creek

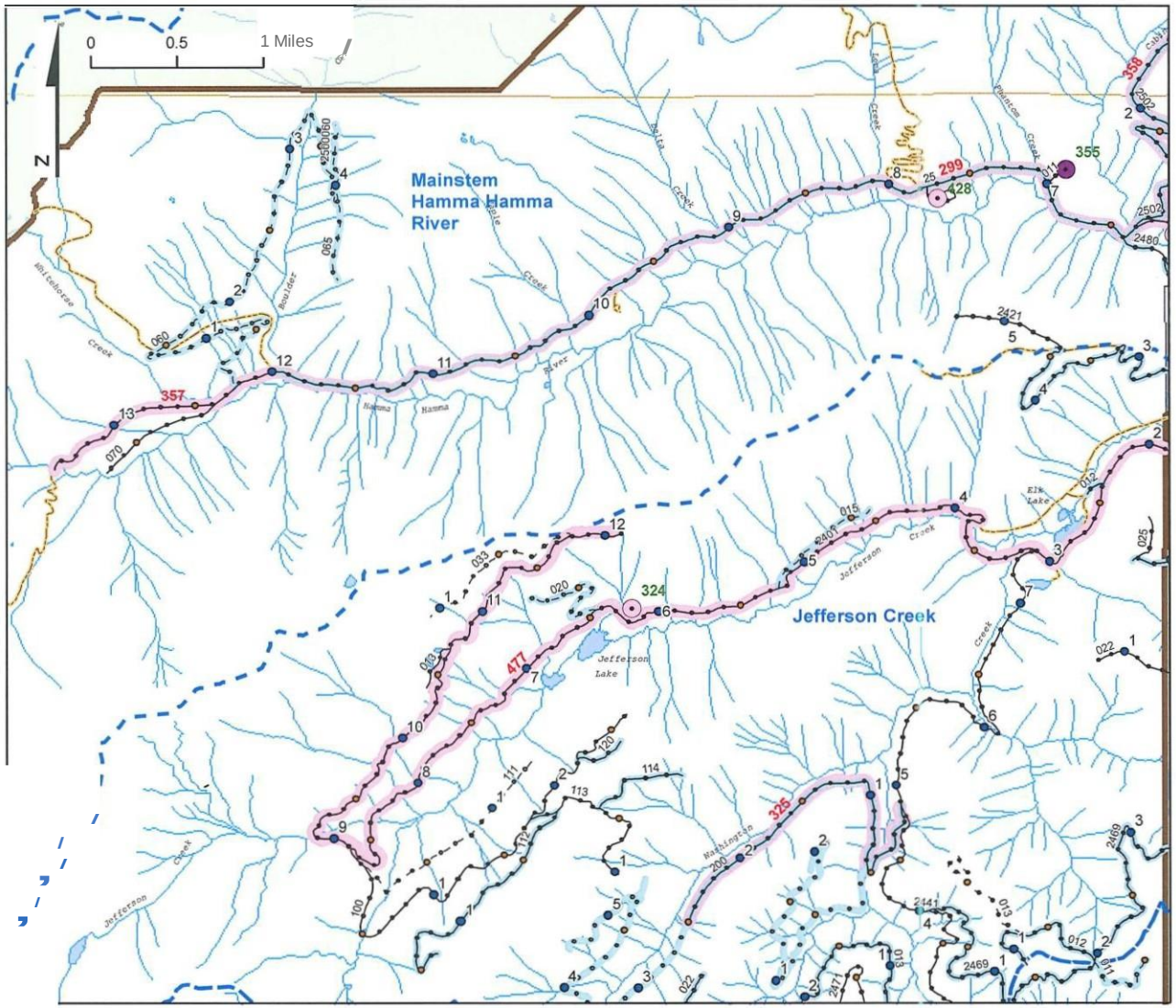


County, Priority 1A
County, Priority 1
County, Priority 2
S. Priority 1A
FS, Priority 1
FS, Priority 2
Survey
Open Road, primary
Open Road, secondary
Closed Road
0.1 Milepost
0.5 Milepost
1.0 Milepost
High Risk Road
Trail - Forest Service
Timber Sale Units
Watershed Boundary
Olympic NF Boundary

Red numbers
Ref# for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

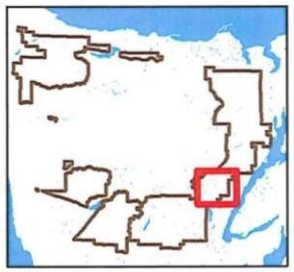


Olympic National Forest FY 2014 Invasive Plant Program
Map 38. Mason County: Hamma Hamma West

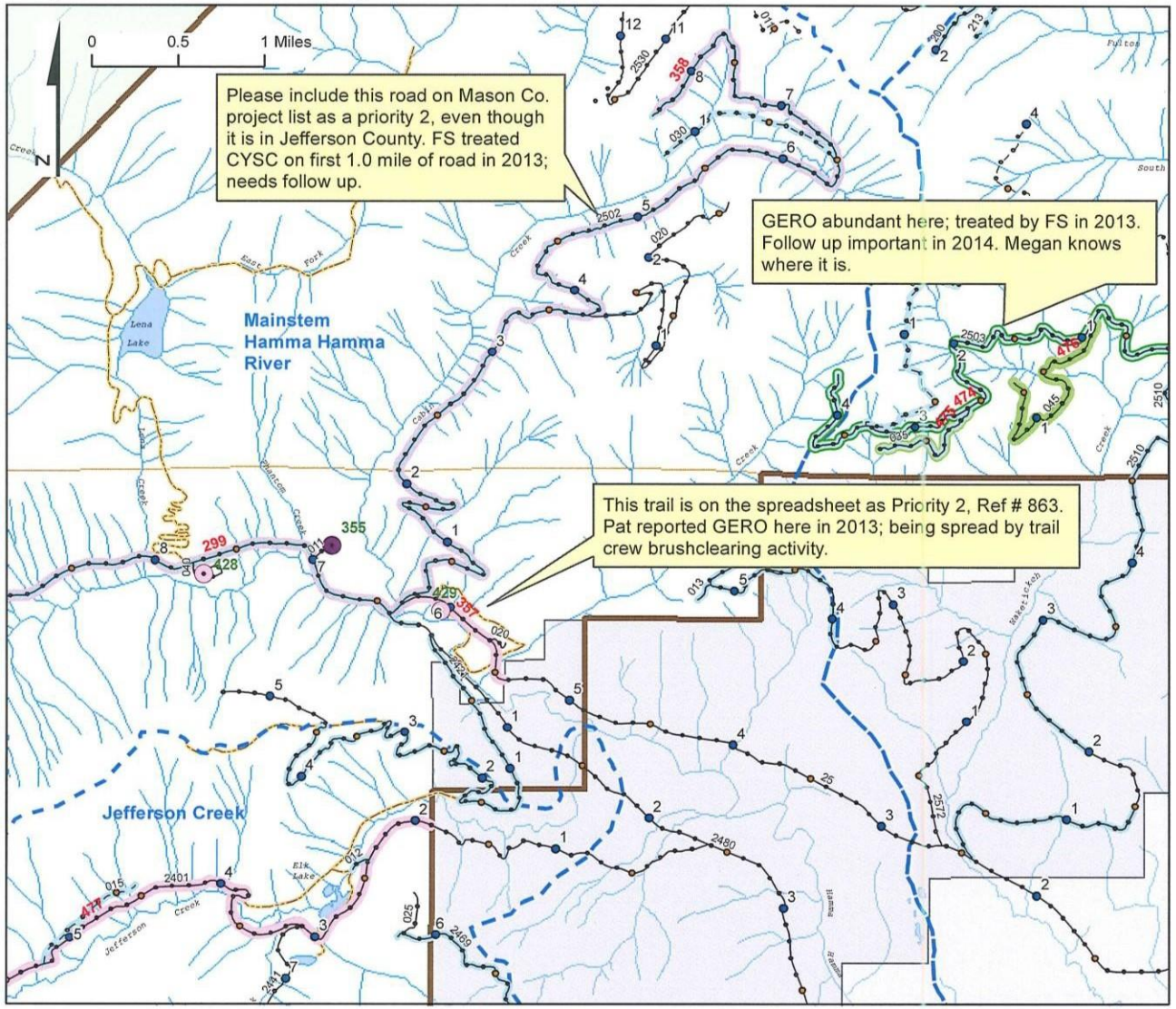


ounty, Priority 1A
ounty, Priority 1
County, Priority 2
S. Priority 1A
S. Priority 1
FS, Priority 2
Survey
Open Road, primary
Open Road, secondary
Closed Road
0.1 Milepost
0.5 Milepost
1.0 Milepost
High Risk Road
Trail - Forest Service
limber Sale Units
Watershed Boundary
olympic NF Boundary

Red numbers
Ref# for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

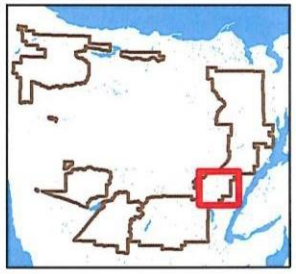


Olympic National Forest FY 2014 Invasive Plant Program
Map 39. Mason County: Hamma Hamma East



- County, Priority 1A
- County, Priority 1
- County, Priority 2
- FS, Priority 1A
- FS, Priority 1
- FS, Priority 2
- Survey
- Open Road, primary
- Open Road, secondary
- Closed Road
- 0.1 Milepost
- 0.5 Milepost
- 1.0 Milepost
- High Risk Road
- Trail - Forest Service
- Timber Sale Units
- Watershed Boundary
- Olympic NF Boundary

Red numbers
Ref# for roads
Green numbers
Ref# for non-roads
Black single digit numbers
Road mileposts
Black 4 and 3 digit numbers
Road and spur numbers
Blue text
6th field watershed name

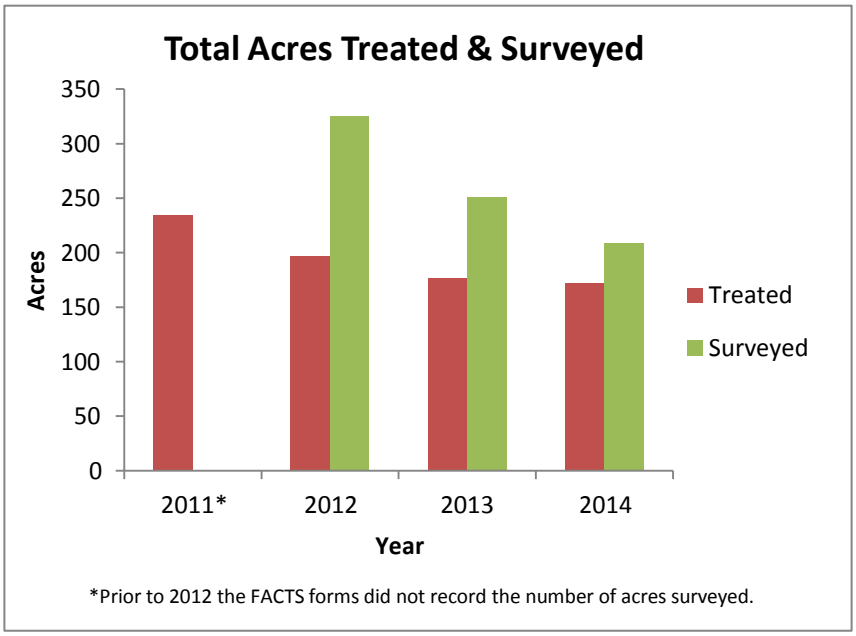


POST-SEASON OBSERVATIONS

Nature of the Problem

Invasive plants continue to threaten the biodiversity and ecosystem functions within Mason County and the ONF. The Nature World News reports that "invasive species are becoming more and more of a problem, especially as climate change warms parts of the Northern Hemisphere, making regions more habitable for invaders" (Stallard, 2014). A recent study published in the journal **Ecological Applications** finds "this is particularly true for wetlands, where changing temperatures are tipping the scales in favor of nonnative plant species" (Flanagan et al, 2014). Additional species continue to be added to the Forest Service priority list as their presence and potential impacts are recognized. In 2007, there were 30 priority 1 and 2 invasive plant species on the ONF Invasive Species List. This year, there are 44. Without treatment, these new species and existing invaders will likely persist and continue to expand.

Since 2009, Mason County personnel, Forest Service employees, WCC crews and contract weed control personnel have been actively treating noxious weeds on most of the sites identified in the ONF's Integrated Weed Management Program as adopted in the 2008 Final Environmental Impact Statement (EIS). A compilation of Forest Service data collected since chemical treatments began in 2009 supports the field observation that infestation size and density have been reduced. For example in August 2011 a rock source was treated and 0.6 acre was reported to have an infestation of tansy ragwort with a percent coverage of 1-2%; in June 2013 the same site was reported to have an infestation of 0.5 acre of tansy ragwort with a coverage of <1%. Effective, long term control of noxious weeds at these sites will require continuous follow up. An active road closure and decommissioning program, especially in the South Fork Skokomish watershed, has resulted in challenges to long term control. As a result of reduced access to many sites, infestation information is difficult and time consuming to obtain. In some cases, sites have not been revisited for a number of years and infestation levels are unknown.



Invasive Weed Populations

- Distribution and population densities of targeted weed species continue to be reduced on many sites with multi-year treatments.
- The most commonly recorded invasive species on ONF lands within Mason County continue to be Scotch broom, tansy ragwort, herb Robert, Canada thistle, bull thistle and everlasting peavine.
- St. Johnswort appears to be increasing in abundance and distribution. Those areas considered more at risk, due to proximity to trailheads, areas of special significance, etc. will need continued monitoring and perhaps the development of a decision matrix to determine when to treat this Washington state Class C Noxious Weed. Although this species is currently a priority 2 species on the ONF, MCNWCB staff has initiated treatment in many of the rock source areas.
- An infestation of purple loosestrife, which was first discovered at Lake West in 2004, had recovered and was found to be blooming. For the past three years it had been undetected during visits to the site. This year, with permission from Green Diamond, plants were deadheaded and treated with a foliar herbicide. This site will continue to require yearly monitoring to ensure that this highly invasive aquatic Washington State Class B noxious weed 'selected' for control in Mason County does not colonize the lake's shoreline.

Figure 2: Coordinator Pat Grover treating purple loosestrife at Lake West after it had been deadheaded to prevent seed production.

- Spotted knapweed, located on the rock bluff above Lake Cushman, remains a control challenge. Windy conditions on the planned work day prevented the use of herbicides at the site. As a qualified climber, the PSC foreman was able to manually remove the flowers and plants from the side hill. This infestation will require continued follow up and creative use of control practices in the future.

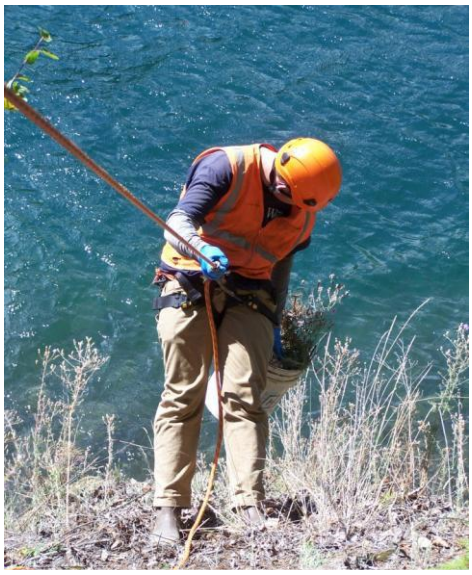


Figure 3: PSC member roped up and hand pulling knapweed on the rocks next to Lake Cushman. Hand pulling was the best and safest method of treatment that day.

- The infestation of Scotch broom along Forest Service road 2500 has recovered from the late 2012 roadside mowing and is now in full seed production. This infestation is too large for the MCNWCB personnel to adequately treat in a season and is better suited for a contractual boom spray application or an approach that would meet the unique watershed requirements. Spot application on missed or new plants or a cut/stump application to large plants at the forest edge could then be tasked to MCNWCB personnel. Personnel, including the PSC crew, continue to utilize the top down approach to control Scotch broom on this road system and have slowed its advancement up the road.

Figure 4: Driving along FS RD 2500 early in the season.

- The majority of the herb Robert sites were treated multiple times during the 2014 field season. Most treated areas were re-vegetated with blue wildrye grass seed during October and November.

- Herb Robert infestations at the Olympic National Park (ONP) boundary and along State Route 119 continue to re-infest ONF land in the Lake Cushman area. The full extent of the infestation within the Park has not been identified. It is unknown what priority the ONP has assigned to this species for control or if control efforts are being taken for herb Robert anywhere within the Park. Effective control of herb Robert will only result from a collaborative effort between ONF, ONP and Washington State Department of Transportation. An effort should be made to talk with the Park and the Department of Transportation to address this issue.

- This year, MCNWCB personnel treated the herb Robert site along the Forest Service's Living Legacy Interpretive trail in the Hamma Hamma watershed multiple times throughout the season. To continue with the progress made this year the site will need to be a high priority in 2015.

- The infestation of common mullein (*Verbascum thapsus*) located and treated at the Hamma Hamma pit in 2013 appears to be expanding. Multiple treatments were completed this year and this site should be a high priority for multiple treatments in 2015. Additional infestations of common mullein are appearing throughout Mason County; however, this is the only known site on the ONF in Mason County. Common mullein is currently not on the Washington state noxious weed list or the state's monitor list.

Survey and Treatment

- The required legal notice appeared in the May 8, 2014 edition of the Mason County Journal (Appendix G).
- This year, there were 12 priority 1A projects and all were completed. There were also 26 priority 1 projects of which 12 were treated.
- The first treatment utilizing herbicide this year was performed on May 13th and the last was on October 9th.
- Informal surveys were performed while driving to assigned treatment project areas and species identified as Class A, or Class B "designate" were treated as EDRR sites when found. No new Class A, or Class B "designate" species were located during the 2014 season on the ONF.
- The MCNWCB continues to utilize Integrated Vegetation Management (IVM) to develop site specific treatments.
- Triclopyr is the herbicide most widely utilized for treatment by the MCNWCB personnel on ONF land. The program utilized nearly 6 gallons of triclopyr and just under 0.02 gallons of glyphosate during the 2014 treatment season. With systematic and careful application, non-target native plants appear to have a more rapid recovery, minimizing the bare zones attributed to the use of glyphosate.
- Pits continue to be a high priority for inspection and treatment. Nine pits were incorporated into the 2014 project list with most being identified as a Priority 1A for treatment.

Figure 5: Big Creek pit with piles of wood debris. Bringing new materials into rock pits increases the risk of introducing new invasive species. Pit inspections should continue to be a high priority to implement EDRR in response to new species.

- Treatment of campgrounds and trailheads remains a high priority because of the potential for spread and the introduction of new species. Campgrounds were visited early in the season and level of infestations assessed. In many cases, initial treatments were made in mid-May, with follow-up treatments implemented later in the season. This strategy minimized interactions with campground users.
- On May 29th and October 9th, treatments targeting St. Johnswort were carried out on the Mint Meadow.

- During 2014, multiple treatments were made at a majority of the known herb Robert sites. In addition, manual removal was undertaken when there were a small number of plants or the weather was not suitable for herbicide use. These practices greatly diminished the plants ability to produce seed and ultimately the long term viability of the population.

- The extent of invasive plant populations in less accessible areas (i.e. wilderness areas, decommissioned roads or roads inaccessible due to storm damage) continues to be minimally documented. The work plan does not allocate time to accomplish this facet of the noxious weed control program by MCNWCB personnel.

Figure 6: Coordinator Pat Grover with a bag limit of herb Robert that was pulled on a wet day early in the season.

- The hot, dry conditions that were experienced early in the season may have affected the efficacy of some herbicide treatments. Extreme conditions can cause plants to shut down their metabolic systems, often the target of herbicides.

- MCNWCB personnel completed the majority of the monitoring component in late September. Monitoring documents how the project design features are applied and non-target resources are protected as per the *Olympic National Forest Site Specific Invasive Plant Treatment EIS.*

Data Collection/Mapping

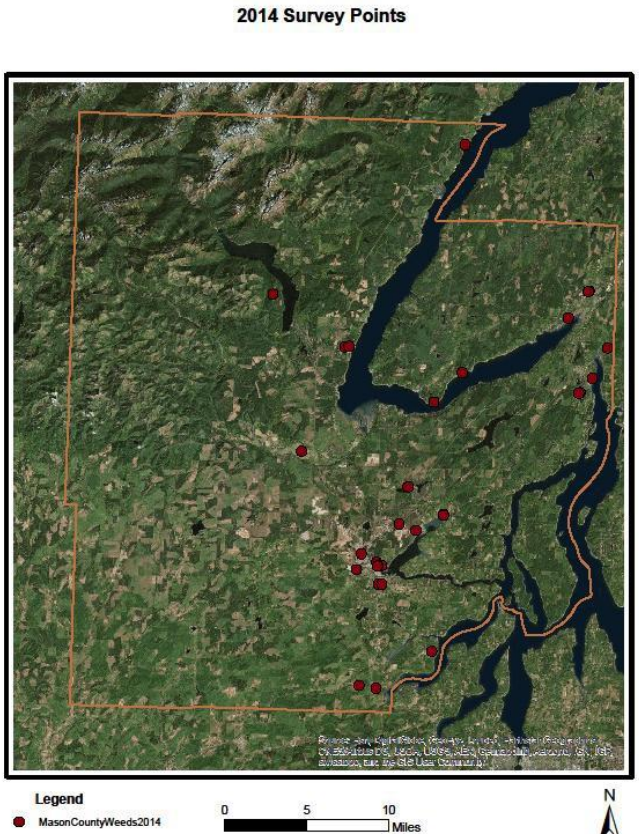
- Color 8 ½ by 11 inch maps were provided by Forest Service personnel with site reference numbers and call-out comments marked on them to identify issues of concern for a particular area. These were very useful and are found on pages 14-23 of this report.

- Continuity of MCNWCB personnel has ensured a consistent approach to completion of the FACTS forms.

- The field going office, aka the green bag, consists of a notebook which contains the work plan, maps, forms and a field safety notebook which contains emergency contacts, spill plan and copies of herbicide labels and Material Safety Data Sheets (MSDS). The overall project map hangs on the office wall and daily priorities are established based on available field time and weather.

- Field personnel reviewed FACTS forms daily, entered accomplishments into an excel spreadsheet and submitted copies to the Forest Service electronically on a regular basis.

- MCNWCB personnel collected very little survey data on National Forest land during the 2014 season. Currently, weed sites on the ONF have not been mapped in the county's GIS system. This year the program acquired iPhones with the Washington State Department of Agriculture's (WSDA) iForm app which allows personnel to record GPS locations of infestations, the locations can then be transferred into a shape file for GIS. Next year, this application could be utilized to map sites on the ONF.



Map 1: This season MCNWCB personnel started to use WSDA's iPhone app to survey and map Class A and Class B-Designate noxious weeds.

Education

- MCNWCB personnel set up and staffed educational booths at the Mason Area Fair, Matlock Old Timer's Fair, Washington State University (WSU) Master Gardener's Plant Sale, Allyn Days and Oyster Fest (Appendix D). Informational flyers and booklets were handed out and staff was on hand to answer questions from the public about noxious weeds.

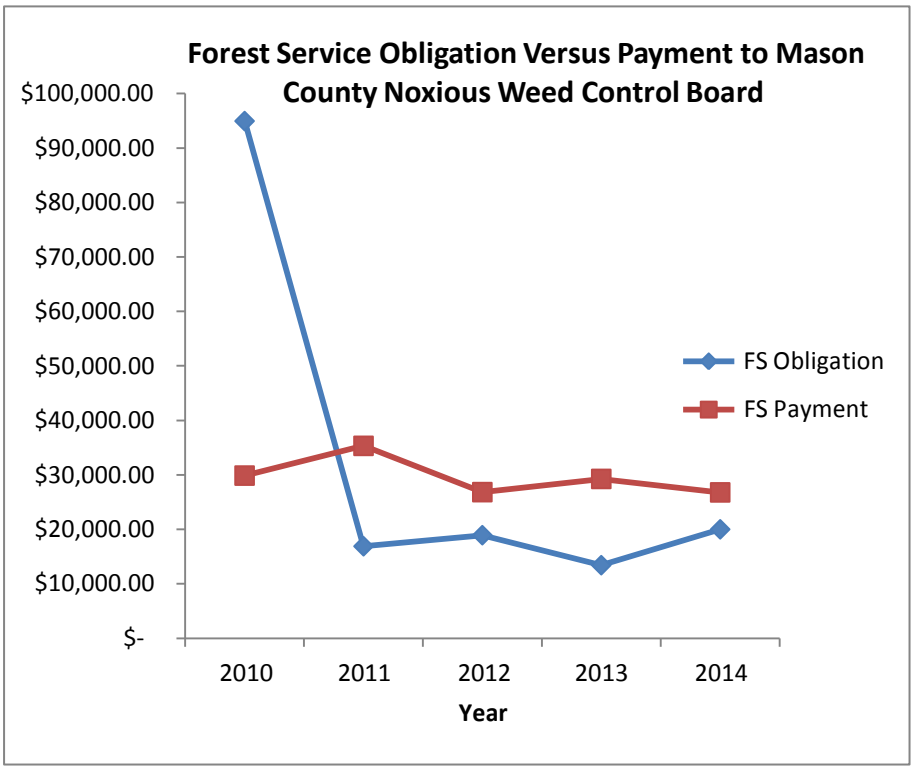
- Staff wrote multiple radio scripts for the "Off the Land in Mason County" radio segment aired daily on KMAS. The station reports that their program reaches four to five thousand listeners every hour. Species spotlighted included: common teasel (*Dipsacus fullonum*), spurge laurel (*Daphne laureola*), giant hogweed (*Heracleum mantegazzianum*) and shiny geranium (*Geranium lucidum*) (Appendix L).

RECOMMENDATIONS

Future Direction of the Project

As of January 30, 2015, the balance in the Participating Agreement between the USDA Forest Service, Olympic National Forest and the Mason County Noxious Weed Control Board is $25,598.46.

Efficient use of financial resources continues to be a cornerstone of the Mason County Noxious Weed Control program. In Mason County, and other Olympic Peninsula counties, significant progress has been made during the past six years in the reduction of noxious weeds on ONF lands. It will be imperative for the National Forest to secure future funding to sustain the progress which this cooperative project has accomplished.



The successful adoption of the 2008 EIS, which authorized herbicide use throughout the ONF, allows efficient and more effective treatment of larger infestations. We will continue to consider all control methods, but the most effective treatments for a small MCNWCB crew will likely utilize herbicides on a regular basis.

The MCNWCB coordinator has extensive knowledge of the project area, infestation locations, plant identification and continues to gain expertise in best treatment methods. Staff have provided a relatively inexpensive, locally based work force with county wide jurisdiction and long term commitment. However, the MCNWCB program is not equipped to carry out large-scale treatment operations over a large area or many miles of extensively infested roadsides or those requiring specialized all terrain application devices. The expertise of the Weed Board staff is most efficiently utilized to respond to, and treat new infestations, follow up application to contractor applications during the same treatment year and treat those moderately sized projects which can be efficiently accomplished with backpack spray methods. As the “closest forces” entity, staff can respond quickly to high priority projects, treat new infestations and can work within the constraints of other activities taking place on National Forest lands.

In 2014, MCNWCB staff continued their efforts to revegetate herb Robert treatment sites. Blue wildrye (*Elymus glaucus)* seed, an ONF native grass, was supplied by the Forest Service and utilized as part of an Integrated Vegetation Plan. A majority of sites seeded in 2013 supported a relatively dense *Elymus glaucus* cover in the spring of 2014. This provided competition for the germinants of this prolific winter annual. In addition, observations suggest that herb Robert expends additional energy growing taller to produce flowers above the competing grass. The sites seeded this year will continue to be monitored in the 2015 field season and treated as necessary.

Efficient treatments and long term control of herb Robert in the Lake Cushman area, and perhaps elsewhere, could benefit from an agreement between the ONF and the Olympic National Park for the control of invasive species.

In 2014, the county wide control efforts of the Noxious Weed Control Program were enhanced by the contribution of a PSC crew from the Washington Department of Natural Resources (WDNR). Working on numerous projects throughout the county, the crew gained on the job training on the different aspects of dealing with noxious weeds and their effects.

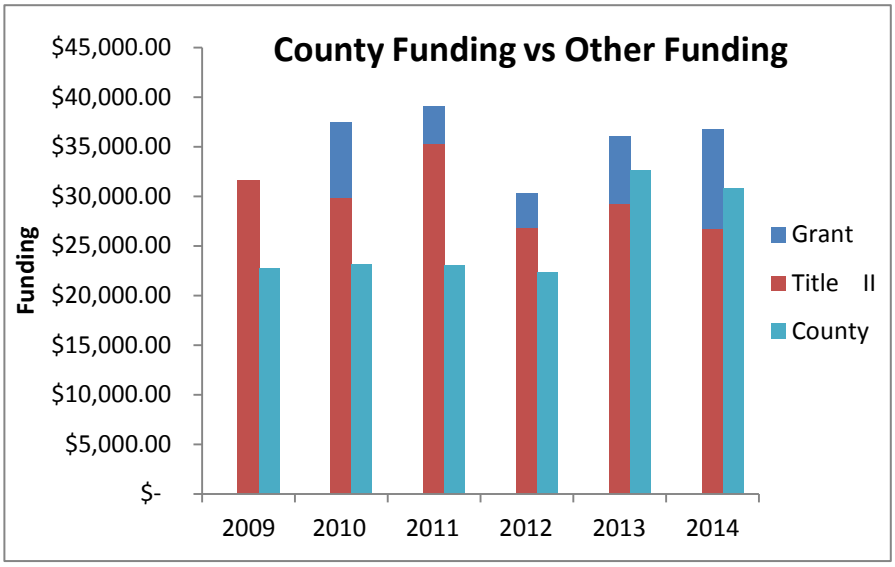
In addition to working on the control of noxious weeds, the crew assisted with the wildfire control efforts in Eastern and Western Washington. The contribution to these efforts came at a cost of additional training and oversight requirements from MCNWCB staff. Although the crew was able to identify the most common noxious weeds in Mason County at the end of the short season, MCNWCB staff continued to provide quality control oversight to ensure effective treatment.

Figure 7: Shelton Creek, in downtown Shelton, provided an introduction of noxious weeds to the PSC crew on their first day of training.

Early detection is the key to preventing large and costly noxious weed infestations from developing on the forest. All Forest Service staff, including those from outside of the Botany department, will continue to be instrumental in recognizing and reporting early invaders. Concise location information can often result in same year treatments.

Stable funding provides improved year-to-year weed control continuity within the ONF and an improved weed control program on other Mason County lands that are adjacent to, or indirectly connected to, the Forest. Funding from the Forest Service is especially important because funding for noxious weed control from Mason County's General Fund continues to be minimal.

As required, monitoring will remain an important component of the program. This requirement can function to provide feedback to facilitate and prioritize re-treatments and locate new sites since visitation is often during a different time of the growing season.



In 2014, considerable time and effort were allocated by MCNWCB staff to continue the development of relationships with Mason County property owners while strengthening existing partnerships. The availability of the Puget Sound Corps crew was one of the catalysts for these efforts.

Since noxious weeds know no boundary, active participation and collaboration of landowners and citizens is essential to achieving long term control of noxious weeds. In 2015, the MCNWCB plans to continue its efforts to unify Mason County, the Olympic National Forest and others for the mutual goal of stopping the spread of invasive plants in Mason County.

Survey and Treatment

- As prioritized by the Forest Service, our focus will continue to be treating known sites. However, additional time should be allowed to survey areas which have not been surveyed or treated during the past 3-5 years. Walking roads and corridors provides a more comprehensive survey and allows surveyors to see small plants, such as herb Robert, which would be missed while driving.
- Treatment of an increasing number of herb Robert sites will require multiple treatments per season for long term control. A decline in productivity and acres treated will be noted as a result of this preferred treatment methodology.

Documentation

- The FACTS form (Appendix H) and monitoring forms (Appendix I) appears to have reached a stable, consistent format.

- Pit surveys were often completed during treatment visits. Aerial photos were valuable for depicting where species are located more accurately than in a sketch format. (Appendix H)

Figure 8: Early Detection Rapid Response (EDRR). Only "boots on the ground" would have located this herb Robert germinant found along the road on the Olympic National Forest.

2014 PROTOCOLS

Team and Project Dates

Treatment continues to be the focus of the project on ONF lands. Patricia Grover, MCNWCB coordinator, and field assistant Connor Cordray performed and documented treatments. Fieldwork began in May 2014 and continued through October 2014.

Invasive Species Recorded

Treatment and surveys focused on Class A and B-designate weeds on the Mason County Noxious Weed List (Appendix F), and additional species that are of concern to the Forest Service (Appendix E). In most cases Class B non-designate, Class C, and unlisted non-native weeds were only documented when an infestation was in a site of particular concern (e.g. a Botanical Area), when the infestation was of notable size, or when a new species was found. Exceptions were made for especially invasive species, such as herb Robert, which can threaten undisturbed areas. Treatments were not intended to target all non-native species.

Road Survey and Treatment
(see Appendix B for summary)

The project focus was on treatment of known infestations in specific project areas identified by the Forest Service, often including sites that had received treatment in the past. Detection and treatment of new infestations was also a priority, especially if new sites were found en-route to known sites.

a. Most known sites are roadside. Typically, at least 10 feet on both sides of the road was treated or surveyed. The distance treated/surveyed was recorded in the field and the area treated/surveyed was calculated using the following formula:

$$\frac{\text{miles surveyed} \times 5280\ \text{ft/mi} \times 10\ \text{ft/roadside} \times 2\ \text{roadsides/survey}}{43560\ \text{ft}^2\text{/acre}} = \text{acres surveyed/treated}$$

b. Trailheads, campgrounds, parking areas and gravel pits were surveyed on foot and area surveyed or treated was estimated.

c. Herbicide treatments were applied based on guidelines established in the 2008 EIS.
    i. Foliar herbicide applications were generally made using 1.5% Element 3A (triclopyr) and 0.5% Competitor (surfactant).
    ii. A legal notice listing all sites under consideration for herbicide treatment by MCNWCB staff or ONF personnel was published in the Shelton-Mason County Journal on May 8, 2014 (Appendix G). Herbicide applications were carried out between May 13, 2014 and October 9, 2014.
    iii. On-site notices (Appendix G) were posted prior to treatments and left in place for at least 24 hours after treatment. Treatments in high-use areas such as campgrounds were avoided during busy times (near weekends or holidays) and Forest Service recreation personnel were contacted prior to commencing treatment.

Equipment

PSC and MCNWCB backpack sprayers were calibrated at the beginning of the field season. The protocol utilized is found in Appendix J.

Data Collection

A unique "Reference Number" identifies each treatment area and the corresponding data.

Forest Activity Tracking Sheet (FACTS)

FACT sheets are used to record treatments in each Reference Number. A completed form is in Appendix H.

Invasive Plant Inventory for Rock Sources, Olympic National Forest

The Rock Source Survey is used to track the suitability of quarry materials from both public and private sources to meet the Forest Service "Weed Free" standard for construction materials. Forest Service protocols for completing this form are included in Appendix H.

Olympic National Forest Invasive Plant Treatment Monitoring

Monitoring treatment forms were used to record the efficacy of a treatment on a site. Comment for future treatments were also written on the forms. A sample form is included in Appendix I.

Figure 9: PSC crew foreman John Longsworth calibrating a backpack sprayer.

NRIS

No data was collected for new sites for inclusion in the NRIS database. New sites that were found and treated were recorded on FACTS forms only as EDRR (Early Detection Rapid Response) sites.

Data Reporting

Office staff reviewed *FACTS* forms, Rock Source Survey forms and Olympic National Forest Invasive Plant Treatment Monitoring forms and submitted copies of them to the Forest Service regularly during the field season. The originals were retained in the Mason County Noxious Weed Control Board office. More detailed data is included in the Appendices to this report, as described below.

Appendix A is the Project Area list supplied by the Forest Service.

Appendix B is a master list of reference numbers treated during the 2014 field season. It lists the area of treatment, by road, or other project area, method of treatment and weed species treated.

Appendix C is a summary of rock source inspections and treatments.

Appendix D showcases the MCNWCB participation in various Mason County events.

Appendix E contains the 2014 Forest Service Treatment Priority List.

Appendix F contains the 2014 Washington State Noxious Weed List, which is updated annually according to WAC Chapter 16-750. Under RCW Chapter 17.10 all non-federal landowners in the state are responsible for controlling or eradicating any listed noxious weeds on their property. This same law provides for the formation of the County Noxious Weed Control Boards, and thus the weed control program in Mason County that is supplemented under this project. The Mason County 2014 Noxious Weed List is also included. Federal agencies are required to work with local agencies to meet or match local weed control standards under the Federal Noxious Weed Act amended in 1994.

Appendix G contains the public notice published in the Shelton-Mason County Journal and an on-site posting notice.

Appendix H contains an example of a completed FACTS form and a Rock Source Survey form.

Appendix I contains a completed monitoring report form.

Appendix J contains the Backpack Sprayer Calibration protocol.

Appendix K contains a letter from the forest supervisor approving the use of the PSC crew on the National Forest.

Appendix L contains an example of a script written for “Off the Land in Mason County”.

APPENDIX A FOREST SERVICE 2014 MASON COUNTY PROJECT LIST

(Ordered by priority)

▪	u			1th Ft.ld W.Uerahed NarM	1 n ;eu	Site Name	R.o..dl	!i	j 2 li	j	j !)	P IH	H	Comments
'''	S2F&08	Coun		Jtfttf'SOnCrHk	Muon	Jtfftraon CrMk Pit	2401000	>.2	32					qutrry lOcal XI II MP 3.2 of 2401 toM. Connetor ltfattd ln 2010. TMy found CNU, CYSC4, HYPE, SEJA, TAVU. Tttattcl again In 2011 - 2013, found and lreattd sman amexn tt of W'Hdt. Monitot and tteata• MCJ tsaty
'''	S2F008	Coun		JetfersonCruk	Mooon		2441200		25	2.5				CEBIZ at M 'O– 0.4: trtlledln 2008 and 2010. NHCIS fOllow up, CESTM, SEJA
'''	S2F&08	Coun	1A	Ulliwal.lp Creek	Mooon	Cuthman Pit	240002	0. 2	02					L.oelltcl ac tiP 0. 2 of tnt 240002toad, CYSC blggett problem, but pea'liM, bull tl'listlt, and u.nsy reowort IIK Mtcl tofadlealfd. Mud'llmprofrom a ftw yotats tOQ, but needfollow up.
'''	'''''' ''	Coun		UlliwaupCttek	Mason	Mint Meadow	2•00026							HYPE, CW'4, CYSCI, PHAR. Betsy How.lllt profect lead, 360-i$6..22i2, Beawatt of Iactt llmlt ln bankfull per wattrshtd per year.
'''	S2Feol	County		LlliwaupCttek	Mason	Ully TS, Unit 3	2400000				X			Mt;orlnltsUUon of GERO In this unit. plan on at least three M rate treatments In zot•. Pretty IUft Pat Grover ..n0WJ Where thltls Due south of MP a.oof lht 2•told (.fl of 8fg Cmk CG).
'''	S2Feol	County		UfllwaupCreek	M"on		•••••••		''	'''				Somt p. ns of this ra.<1 go thtoUOh non-FS lindpltaM notitylltldowr'ltrs of WHd trta mtnts you plan on trta .ng non.FS M9mtnts,
'''	S2Feo8	County	1A	L.owfr Nonh Fori! Sk<*omlsh	Mason		2>40000	••	''	5.7	X			Skok TSurlts •djactnt toroad; major haul route for sale, GER.C ll'f1ttd herein 2012 lnd 2013. Also, *CIARI*, CYSCI, S!JA, TAW, CIVU, CYSC4, HYPE, RULA.Somf pant oftr'lll to•dgo thrOUgh
'',	S2FGOe	C...	1A	L.owtr Sovth Folil Skokomlsh	M1son		2300220		''	''				Skok TSurits1djuent toro..d. Oxbow CG I'Nd. SEJA, CYSC, CIAR; CEJA el10 repot\e<l here in past, but NU"t1been seen in ...veral)'eert. GERO reported herein 2013 forfirtl time.
>42	S2FGOe	Coun	1A	L.owtr South Folil Skokomlsh R!vtr	M11on		2>00200				X			Decommtc; In 201:S. Larv• dense lnfastation of GERC w.s in ditches and expanding Into foreII end c:Jtartngs fre.m MP O0 3.•SEJA tcal*"<f all along road, •• •ll)' liP!:* segments. HICAIO ls elso
',	••••••	C""'Oy	2	Lowtr South Fori(Skolo;omish River	Mason		2>40000		••	•	pttMnt			Follow up 01GERO just lfltf high JIHI bridge, Monhor 1nd tlut other pint Of told segmentet t.me end eccess eliOW1, SI!JA. HYPI!, TAW, CYSC, CIAR, OACA. PHAR.
•••	••••••	Coun		LOW« Sol.lth Fork Skokomlsh	Mason		m0000				X	v.GA		Skok TSurlttadjauntto road. Ytl1owhaw dabul'ldll\t aiOtlg toldtdgtson 235011 MP 10 5-11.5, which Iin Sat109 (Rtf I QI) Lowtr Plfl of 2350 (lhit Rtft) lsln l.SF Skoll; WS so survey fOf'
•••	S2FG0e	County		Lowtf Sol.lth Forl(Skoltomlah Rivtr	Mooon		2>00000		0.5					ok TS ur Itt adjacent to road. Yellow hawkwHd II MP 30 • 3.5 Gust btlore FS boundlty), MP 8.1
•••	••••••	Coun	,.	Mllnstem Hemma Hamma River Rrver	Mooon	Hamme Hamma Pit	2500011	02	02	••	pttMnt	mullie "		Sk 1.2 (ixt w1200tpul'): MP8.8:0.0 Oustrore Oxbow CG intrtnct) GERO Feb 2011 on lnedudtt 25X101 lto•d,a mor1spur road at MP 7.0 of the 251 Nd, this pit is located at the end of thit spur. smau •mountt or ewldt va ty ofWH<h htl't. Trnted 2010 2013 2012 2015 specltt: CIAR,
'',				River					••	...	prestnt			eontact Chlryl or Will, CIAR, CACM, CIVU, CYSC, SEJA, LAW, HYPE. GERO highest prklrity,
•••														
	S2F608	Cou		Melnsttm Hamma Hamm•	Moson		2500000	28	135	107				GERO et Una LeklTH, CYSCA matn prObltmt. FS will1vallab._ to help with this road In FY1A;
	S2Feo8	County		Malnsttm H1mm1 Hamm• Rlvtr	Mooon		2$02000							Treat.c:l2013, mon.itotandtreatCYSCet MP 0·1.0. Treat reflof roadltlli'M allowt.
'',	S2Feo8	Coun		Mid!ltNOI'U'IFM	Mooon		•••••••	...	tU	8.7	X			Skok TS u1 Ita adjacent to road. GeRO btooming a problem, knlpwt.c:ltlso, CIAA, CIW, CYSC,
••• •••	S2F608	Coun		Skokomlall River MldcleNOI'U'IFM SkokomlsiiRiver Mldck NOI'U'I FM	Mooon	h River	2400031	Big Cre ek CG Leke Cush man	••••••	•				HYPE, SEJ\ PHAR, TW. Aisoa\Mt Ro TH and B .rGuleh Pietlle.V.t 11p.artofthil projtel ,•,

AI of 2013, not very wu.di d...some HYPE aeattered et notltl end Of CG. SOtve)' and tttatlt tlme

Big :rtek Wtll- Aoeetato Trlll817, Tacomapowerwitdoing majorw0rM here In Mlr

you

pl1n

on,spn

t)'lng

on

INtr

ltnd.

Ro1d

condit

iont

unkno

wn:

tte1t1

1,..l

tlt

•Dowt..

Ptm:"Ui

on rom

lhtmlf

'''	S2FGOe	Cou"		Skokomlsll Rlvtf	Mo...,	Quarry		1UI	'''	0	
											present
'''	S2F60&	eo.n		Mkklt Nonh FM; Skokomlt	Mooon		24SIOOO				
	S2F60&	Coun	1A	Uppt1South FOitl Slt<*omlsh	Mo...,	BrownCrHk Quarry	2354000				X
>70	S2Feol	eo.''		UPf)+I'SouthFor1r. Sltoltomlah	Mooon		2340430		'	⊔	

l.locattd at t4P 1:u of 24 ro•d. NotveryWMdy, but ne.c:laiO be monHoredend ttwettd •• needed.

2011 FACT3 form says CESTM 14\d GI!:RO trtlttd htrt. P1rt of this gott through ONP, gtl

SF SkokTS AJ junction of 235-4 and 235-4300 road. CYSC4 1\1 1been gre1ly rt<lueed, but follow up with ht(t)ici M In 201•1s netdtcl. L.etgt p.ttd'l ofGEROIn debit phes trtlttcl In 2013; tlso 1reet hlv.'k\lftd, L.ÀlÀ.CNU, SEJ-' and some CYSC In 2013

Skok TS ul ltt tdjlctnt to road.Trtlttd In 2013follow up CYSC biggest proOiem;1110 CIAR, RUOI, CM. . VJ.Ä. SEJA.

P ae lof 4

				6th Field Watershed Nar M		Site N.Jme	Road t:					Comm.nts
371	S2f608	Coun		Upper South Fork Skokomish	Mason		23.4()433		0.15	0, 15		Skok TS un ts adjacent to road.
372	S2f608	Counly		Upper South Fork Skokomish	Mason		23-40437		0.15	0.15		Skok TS un ts adjacent to road. Treated in 2013, needs follow up. SEJA biggest problem, also CIVU.
379	52F608	County		Upper South Fork Skokomlsh	Meson		2:155000		6.0	0.6	present	GERO all MP 5.6. Look for o111nge nagging around trurk of large alder on east side of road. Many other weed spec:iuen along this road that also need treatr Mn
300	S2F600	County		Upper South Fork Sltokomish	Meson	Brown Creek CG	2340000				X	Burdo VERY WEEVY In 2013 t Burdodc. becoming a problem at campground it is more prevalent ncNI ttlatl have noticec. in the sAlso starting to see GERO in campground, u.u well in 1.1 entrance, Many other weeds as w n. This Ref / includes the 540,543, and 600 spurs, whicdl are an rods In N-I campground.
	52F608	County		Upper South Fork Skokomish	Mason	Brown Creek Fbt Quarry	2353000	1.2	1.2		X	2353000, M 1.2. This is NOT the same as the 8rOWfl Creek quarry, which Is Ref f. 369.
	S2F608	Comty		Upper South Fotk Skokomish	Muon		2340400			0.3	X	Decomm ecmpleted in FY 11. GERO at jxn with 450 needs montioring, and trutment as nee. The rest or this road is allower priority only trel1if there is Ilme. Some pans of thisroad go through non. FS land • please notify landowners of weed treatments if you plan on treating non FS segments.
300	S2f600	County		Up r South Fotk Sk omish	Maoon		2355100		0.7	0.7		Convlt'ted to trail in 2008. Monitor end trtat as needed - several species treated here in past; possible GERO inb'ocluced here during trail conversion (equipment going and forth from 2355300 spur during decommleonversion in 200712008). Meson Co uys pt>etty eltl as of 2013, but needs
	S2F608	County		UpperSOYth Fotk Skokomish	Mason		2155300		0.9	0.9	X	mm C01'1plete In 2008. Robin Staddard uys Wd GERO infestation here. This site wm bt' used as a disposals te in the near Mute, so Important to stain treatments ncNI (heevy equpment will be going in and dU1 of site when decomm Is active itl 1 few years). Treated several times in 2013, but needs
390	S2F608	County		Upper Sooth Font Skokomish	Mason	Lebar Hoi'Je CG	2:153000				present	GERO found and treated here in 2012. FoJow up in 2013: treat other weeds 1s needed.
394	S2F&o8	County	1A	Upper South F0(1(Skol<omish	Mason	V1G43 Quarry	2360100	0.3	0.3			Skok TS ro k source. Located 1123&0100 spur, MP 0.3 • ro. dcu, . . nity ends at quany. Very few weeds here, but common tansy was found here in 2009 (pulled et that time) also some biKJtbeny (flagged) fOlnd at opposite end of pit from grtvellpile. Monitor and treat as ne<:essary.
395	S2F608	County		Upper Sk..th FOOt Skokomish	Mason		2300000	9.5	10	8.5		SF Skok TS. Units adjacent to road. SEJA, CYSC, OACM, Road to Spider Lake. Mysteryhawkweed (H. u betla! Jtn?). round in 2010 ∂[]<Π of 23 x 2356 onIslandIn road. Not very weedy (relatively
	S2F608	County		Upper South Fo'k Skokomish	Mason		2340000	G.1	12.9	3.8		SF Skok TS, Haullroute. Road closut to Btown Creek CG Ishighest priority - burdock becoming a problem, a!" well as other weeds. Other parts of road segment lomr priority, billtreet as time
405	S2F608	COIJnty		Upper South Forte Skokomlsh	Muon		2360000		4.3	4.3		SF Skok TS. Units edjacent to road. Road was weedy last llwas out there, so high prtority for tru.u tmen n 2014. Several spurs otfthIs road have be or win be decommed, unsure what decomm
406	S2Feo&	COIJnty		Upper South Forlt Skokomish	Mason		2360100		0.2	0.2		V1043 auar--y et end or road.
411	S2F608	COIJnty		Upper South Fo'k Skokomish	Mason		23<4()450		1.2	1.2	X	Decommed in 2011; Tecoma Power win take over ownership in future, but has not been fif'llllited as of 03119120 1• Sew••GERO Inf,.talion ononO deoommMo 110. and = •11 In 201<
	S2F608	Coun	1A	ower North Fork Skokomish River	Muon		23.40200	0.5	5.7	5.2		Skok TS un ts adjacent to road, Combined with okl Ref 420 and 489.
	S2F606	Coun		Lower South Fork S«okomi sh River	Mason		2300221		0.4	0. 4		! ok!u :=t f ::__;;e:': :!:::. In 2010, MIS along rivtr. Was used for
421	S2F600	Coun	1A	LO'Ner South Forte. S«okomish River	Muon		23<40210		0.5	0.5		Skok TS un.ts adjacent to road.
				River								GERO treat d in Ilites 4, 15, 10 In 2012. Also ARM12, CIAR4, HYPE, PHAR3, SEJA
428	S2F&08	Coun		Mainstem Hamma Hamma	Mason	Lena CG	2500040				present	
	S2Feo8	Coun		Mainstem Hamma Hamma River	Meson	H.Jmm Hamm01 CG	2500030				X	Bur<lo GERO Il'eat '<i In sites&, 7, 12 In 2012 ..needs rouow up. Olherwe*<h needlI'eatment esweJI.
				Upr South Fork								SF Skok T . Haul rotrte, and unit adjacent to rod 11. MP 2.5, CYSC, CIAR.., CIVU, AAMJ2, HYPE,

	S2F603	Coun		Sk omish	Mason		2353000		13.2	13.2				X		PHAR 3, SEJA. GERO found in 2009 at approx MP 0.8, "on a trail to the le9ar Cr & SF Skok n ** t•nddl•Bllfb!ido•on it!l·Fromdatuh•ot4751 <<.5251590 SF Skok TS.. Haul route, and unit adjacent to road et –MP 1.3. This segment of road Is from the Skok bridQe to the Brown Creek quarry (at 300 spur fork). Large infestation of herb Robena at MP 0 – 0.1; extends dov nsl9pe towetds rocl into BI'OWI! Cfeek CGiustpast)\n Other weeds es well I'l,,pliodfY.
404	S2F608	COUnty		Upper South Forti Skolomish	Muon		2354000		1.0	1.0				X		
												Pase 2 of 4				

i	ï	ė		'th FWd Watet'lhed NaiM	jA	Name	Road /	::	!!!					Commentt
m	S2Feo8	Coun1y	2	J•fftt'lOl'ler..k	•••••••		240t000	01	121	tt3	x			Lowetpart Of !'Old (bMow MP 7.0) treated by conndorllln 2010 • needs folow wp Upptr plf1of tOld ao be kolt.ct at andtt:at.ct as approptlatt Mystty ha (HtSA?) fO!M'ICI and Wattd htte In20t2,
..0	S2F&08	C...n1y	1A	Lowet Nonh Font &okomlah Rov.,	•••••••		23-40250	0	1.0					Skotc TS unh 1adSac:ent to road.
511	S2F&Oa	C...n1y	1	Lowt-r South Font Skc*omllh RIVet'	•••••••		2:142000	•••	11	1.7				Skotc TS unit 1adjac:ent to road, Abundant SEJA. Ts ro.d Mgment lt c:onunuout wlth Ret'lf 512
512	S2F&Oa	C...n1y	1	Lower South Fork Skokomlsh Rov.,.	•••••••		2:142200	0	34	3.4				Skok TS unlt.Jadjac:ent to road. Abundant SEJA. This road tegmen!Is continuout whh Rtft 51t
••	S2F&Oa	County	1	Upper South Font Skokomish	•••••••		2353230	0	25	2.5				WS rwttoratbn pro}ecL Thit road is on a list or ro.Jd scheduled for dec:omm ln the futurw, Treated 2013 S!JAbtQgeJt ptobtem.
01$	S2FIOI	CO\In1y	1	UpperSoYth Fcwit Skokomlah	••••••••		2350200	0	1.3	1.3				.omt: CYSC l'he 235e and 23 2400 rwdl Niacllng to tNt lite arw -'to herAiylnfetttd >Mih KOtc:h Road aeMddtd for dKomm, Upper part of this road It ln Midclt Fot\ Satsop WS Abundant SEJA.
','	S2F&Oa	Co<wl1y	2	Mldcle Font Satsop	••••••••		2W210	0	03	03				Road sch•ch for dec:ommtlwas soon u road is acc:essiblt - dec:omm -Mil ttart lt! mkl June.
m	S2FIOI	Coun1y	2	Mtdcie Fork Satsop	MaJon		2358200	13	2	07				Road &ehtdi._te<J for dKomm. Lowerpanoflh.sroad ltln UppetSovf'l FOfttSkott WS The 2351 and 23$2400 toK s ltading 10 N'''- art alto heady Infested<Mch scoteh 1>r0om.
'''	S2FIOI	Coun1y	2	Middle FOl'tl. Satsop	••••••		23511000	42	••	2.4				CY iC. Other weeds also present .nd nHd treament.
m	S2F...	Co<wl1y	2	Middle Forti. Satlop	••••••		2300000	171	21	31	▼			SlaiU Just PI I Spdtr Lakt 'Mdt v..,.ty of WNds, SE.IA heavy Wt placet. CMJ, CYSC4, HYPE. S!JA Yello¥. NW'IrNMd elso rwponedas treated htftl Wt 2012.
521	S2FIOI	Coun1y	2		••••••		2300000	21	32 4	114				1M Mgmtnl J(1M l'Oid, but 0 - parts of road shoutd be tre-*1..time llowt.. 23l'Oid rock
							2355000	15	57	7 1			▼	New petdl Of CR!) at jundJon of 2365 .nd 2365100 spur Sutwy end hat rut of road11 wne
•••														
				Upper Wtst Fork Sai.Sop										Al MP 214, 1 na1 patCh ofyelow ntedt treH'ntt'll.,lhd l:s htghtSt pM(lt)' forhatrntnl on
											▼			Skok TS unluadjacent to rwd. Heavy SEJA infestabon and treated howe in 2010 .,..
ou			S	R""" M-Fot1<Sauop Sk.......										•-up
	S2F...	Coun1y	1	Upper South Fork	••••••		2355550	0	04	04				
551	S2FIOI	Coun1y	2	Lower North Fot1c. SkokorTust1	Mason		2:140350	0	05	0.5				
550	S2F608	Co<wl1y	2	l..ow.r North Forte. SkokOmllh Rlvtr	Ma...,		23-40211	0	05	0.5				SP Skok TS, Jnlt adjacent to road Survty and tre11a1 time a11owt.
577	S2FIOI	Co<wl1y	2	Upper South Fort Skokorrilh	Ma,..		2380200	0	2.1	2 1	x	x	pre....	WS rwstonlJ !fl projec.t. This d It on a list of rwd schedute<l for decomm In the luturt • dec:omm ma "halltady happtMc" so, monitor and trtat as tll'flt and acctiS llowt 2011;
551	S2F601	Coun1y	2		•••		2364110	0						

				"-"""""Fot1< S1<-	''',				04	04						Decommed 112011, tutvty and u.at onty as time allows SEJA wa. biggest problem, esp nur end of road r,.at bd In 2010 anc1201t; wil nMd rnot1Itoring in1t1t Mute
552	S2F. - -	Co<wlly	2	" " '''''''''''	''ll.,,		2364130	0	04	04						Decommed 112011, tUNe)'and u.t only as 6me dows. SEJA wn blggett JI'"b'tm, tsp near road. tr.ated in 2010and 2011, we neec1 rnonltioMg In lht fulur1l
5U	S2F. - -	Co<wlly	2	"-S ovf1Fot1<	'''''''		2364150	0	2.1	2.1						Otcommed 112011, Sl,M'Yt)'and wat only as time allows. SeJA wn b!Ogest problem. but noc ••
'''	S2F. - -	Co<wlly	1A	Wett For\ s.tsop Upper '''''''	'''''''	23 road roclc atockptlt	2300000	252	25.2	0						badeh lht 11) Md t)()apursTtN\ed in20t0 and2011, d needmon.'OMO in lht Murt 2300000, MP 21.2 Fals in rwfeqnc:e / m tf coming from 1ht Skok. bt k .tMM 1.7 milts pesti'le I'Mte:tlb«:kjulCtlon1M 2358 road. L.oadtdwif1 WMCfs in2010, Inc:Miing peavine, Canedi1Ns0t,
																___- - ___ - - - - - - - - - - - - - - R nv..-t-uoln201S.
511	S2FIOI	Coun1y	1	Mldde FOlk Sll&Ot)	'''''''		2350000	Q	12.1	3.1	▼			- - - - - - - .1		YellOw hlwk ¥ Md aGoing roadedgt.l at MP 10 5 – 11.5 lowotrpMof2350 lsln LSF Skol WS elto nHCI to be turVtytd for hs WMd • Rtf / 344 Othtr weeds hete lndude CYSC, SEJA, etc.The sa nMd trutment, aoo
																YellOw hlwk.,,.d tbundatle eSong l'oadedgtl ne•Jxnwhh2350to.cl (MP 12 0-12 I) fn1A 23M anc1 lnoC.Jltrj spr.Ht (open and dosed) SlrOutd be WrVt)td for ''' weed. tur focus on Rating known
'''	S2FIOI	C"""Y	2	Mldcle Fork Satsop	'''''''		2385000	2.3	125	105	▼					lnlulltion Dispersed cempground at Wahers Creek bridge alto has.omt:hlwkWMdInIt nearroad.tn:at this •• well under this Ref t,
											Pace 3 of 4					

				51b F.ætd Waten.hed Natrt		SttoNatM										
	S2F008		2				2340100	0								
	2															
				lowwSoultl forti. SkokClImlh												AhiOWrTS Ref 191,111o . . . 599,100,801MI TSR*Isys.lilm(23401DO)endapurs-)Jst westrAL..lk mksl.ctes is higher Nn whoM ii. ≤≤ here Just wast olLMA Wast. Hetb RotMWt fOY'ld M
5H	S2Feoo		2	L .w fcril.												
							2)40110	0	2.65	2.65						Ahl OverTS. This Ret•indudH al•SSOCU'led sp.n(112,111,121,122,12ll,12$,128,130,1U)end IUIfOUrding" ;, so»Wrmlesfacnt is higher than whit is ,.-Mrn*l,_. Httb Robert fol.wldat
	S2F601															"lime
	S2FOOl		2	Lower Soufl fcril. Skolo.omrsh			2340040	0	0.7	07						Ahl Over TS. TNs Ref 1inc:ktdes . .•sSCM»l.cl spurs(044}and IUtfOURding unrt.
																NP 05'A11C spur Md Engll$h holty fcK.Ind at vwious loenons tw11 proWie miiP}.... prionty• W'Ut
			2	Lower Soufl Fen Skokomsh			2340040			07						Ahl Over TS.""hts Ref /i'dudes . .associNd spurs (fM6,041)and SUfiOUITding uM. Four IL.AQ cut dowrta In 2012 mot'lltor Wid pa.ntstt.mps and aoceu allows

Mla)'tlow — Unde•ifc:onttadotsonlt\lltptojec:tf tMiga"«<tnH"-ftSto

&10 S2FOOl County 1 1.owtr South Upper Soufl Fonr 21 Road dMp pa1ch 2300000 75 75 0

2300000, MP 15 V«vimpoNnttomoMOrandtrutin2012.[Mpoul forFrtCreft/1!DP,whdl

DKomm Acl us Route.SpottHcund betNHn 130 and 150 spurs lr\ 2010 Truted in 2011, but nM:.ls folow up;knapweed . .along . . . OChwWMdl

U2 S

2FOOI		1		UpperSaulk! Fort			2……,			3				Sf Skotc TS. ..ots rASEJA Men in 2010 Olhet WMds Mao preMnl and need
'''	S2FOOI													
														limealows
'''	S2FOOI	County	2	LowwNorll Fort		UkeWH1	2340000			0				permiuion t:rfON trNting a.&onmrend !rUtasMia.-0WS Notes from 2012 Mf "P08010has
			2	Middle F0l'tt 5aop			2350240	0	2.1	2.1				knotwMdMe p.rpleSoosotstnfe Not FS, but ,at a few feet over bou'ldlty •getlal"downef –GEROtound and WUMd here ift 2012- needfollow up
'''	S2FOOI		2	\JVWw..tF. . .Sotlop										
							2314000	0	1.1	'''	x			k.ndandii"N:.din2011and2012. MP2.1-2..3.Ns4$EJA.oe..W'Mdlalongr'Oidl'lll
'''	S2Feoo		1A	Lowtr Soul'! Fork			2340230	00	2.1					WNMW 1 Tt'NttCI in 20t:J Md HJCAnot found.. Mcntar M:i .-.ataJ
'''			S	"'-deee Fotk Satsop RMr			2341000	152	249					
155			S	Lower Soull F0fk Sk.okomdh			2343000	50	111					
'''			S	tr.ldle Fottt Satsop Rrv«			2345000	71	110					
157			S	MICkle Fnl!. Satsop Rivet			23-41200	07	2.5					
'''			S	Wdcle F0l'tt Satsop Rrwr			2365300	00	2.5					
150			S	M.cXle Font SlliiOp RNet			2315350	00	02					
'''			S	Upper West Fott Satsop			2300440	00	12					
111			S	Upper Wut Fcril. S.t10p			2>11000	10	102					
11:			S	Upper Wnt F0l'tt s.tsop			2300410	00	t1					
'''	S2Feoo	County	2	Ma.utem H ltnme Kln'wN		H.arNN H.af'rWfta CG Loop Trail	2500000						X	PM Gtovwre GEROilpruenl. Mlng .-.1Mdwn betng sprud by .-.1 n2011.Trail 121.

Pa&e4of4

APPENDIX B
2014 ACCOMPLISHMENTS

Accomplishments prior to USDA Forest Service reporting date

Ref #	2014 Priority	Priority for Retreat in 2014?	6th Field Watershed Name	2014 Site Name	Road #	Acres Examined for Weeds	Acres Treated (App'n Area or Manual Ac)	Herbicide Used	Herbicide Amount (oz)	Date of treatment	Species Treated	Comments
327	1A	NO	Lilliwaup Creek	Cushman Pit	2400025	0.1	0.1	N/A	N/A	10/29/2014	CYSC4	
327	1A	Yes	Lilliwaup Creek	Cushman Pit	2400025	4	4	Element 3A	5	5/29/2014	CYSC4, SEJA, LALA4, RULA, PHAR3, GERO	
327	1A	Yes	Lilliwaup Creek	Cushman Pit	2400025			Roundup Custom	2	5/29/2014	CYSC4, SEJA, LALA4, RULA, PHAR3, GERO	Targeted the LALA4 and PHAR3 with the glyphosate
328	1	Yes	Lilliwaup Creek	Mint Meadow	2400026	0.5	0.5	Element 3A	4	10/9/2014	HYPE, GERO	1 GERO was pulled at the gate leading into the pit.
328	1	Yes	Lilliwaup Creek	Mint Meadow	2400026	0.25	0.25	Element 3A	3	5/29/2014	HYPE	
330	1	Yes	Lilliwaup Creek	Lilly TS, Unit 3	2400	0.2	0.01	N/A	N/A	10/29/2014	GERO	Threw out some grass seed on the GERO sites.
330	1	Yes	Lilliwaup Creek		2400	25.81	25.81	Element 3A	174	8/6/2014	GERO	
333	2	Yes	Lilliwaup Creek		2400	0.036	0.004	N/A	N/A	8/6/2014	SEJA, CYSC4, CIVU, GERO	
339	1A	NO	Lower North Fork Skokomish River		2340	0.8	0.8	Element 3A	5	7/31/2014	SEJA, CIVU	There is a fair amount of SEJA along this road
341	1A	Yes	Lower South Fork Skokomish River		2300220	0.7	0.02	Element 3A	2	7/18/2014	GERO, SEJA, RULA, CIVU	GERO is located near MP 0.3 on the east side of the road.
341	1A	Yes	Lower South Fork Skokomish River		2300220	0.03	0.05	N/A	N/A	5/21/2014	GERO	GERO is located at MP 0.3
342	1A	Yes	Lower South Fork Skokomish River		2300200	1	1	Element 3A	16	8/18/2014	GERO, SEJA, CIAR4	
342	1A	Yes	Lower South Fork Skokomish River		2300200	0.3	0.2	Element 3A	4	7/18/2014	GERO, CIVU	There is a lot of GERO between MP 0.0-0.1
342	1A	Yes	Lower South Fork Skokomish River		2300200	4.8	0.01	N/A	N/A	5/21/2014	GERO, SEJA, CIVU	Walked out the entire road. The GERO is only located in the first quarter mile.
343	2	Yes	Lower South Fork Skokomish River		2340	0.01	0.01	N/A	N/A	8/4/2014	GERO	Hand pulled the flowering plants. We need to come back here with some herbicide and treat this site. Would also be a good place to put out more grass seed.
344	1	Yes	Lower South Fork Skokomish River		2350	0.01	0.01	Element 3A	0.25	8/28/2014	GERO	
344	1	Yes	Lower South Fork Skokomish River		2350	0.25	0.25	Element 3A	4	5/14/2014	GERO, SEJA, HYPE, RUAR9	
348	1	Yes	Lower South Fork Skokomish River		2300	0.05	0.05	Element 3A	1.75	8/28/2014	GERO	

Ref #	2014 Priority	Priority for Retreat in 2014?	6th Field Watershed Name	2014 Site Name	Road #	Acres Examined for Weeds	Acres Treated (App'n Area or Manual Ac)	Herbicide Used	Herbicide Amount (oz)	Date of treatment	Species Treated	Comments
348	1	Yes	Lower South Fork Skokomish River		2300	0.2	0.01	Element 3A	3	8/18/2014	GERO, TAVU, SEJA	
348	1	NO	Lower South Fork Skokomish River		2300	17.1	17.1	N/A	N/A	8/12/2014	SEJA, CIVU, CYSC4	
348	1	Yes	Lower South Fork Skokomish River		2300	7.3	6	N/A	N/A	7/24/2014	SEJA, CYSC4, GERO	
348	1	No	Lower South Fork Skokomish River		2300	0.4	0.4	Element 3A	3	7/22/2014	TAVU, SEJA, DACA6, CYSC4	
348	1	Yes	Lower South Fork Skokomish River		2300	5	3	N/A	N/A	7/21/2014	SEJA, CYSC4	
348	1	Yes	Lower South Fork Skokomish River		2300	0.1	0.1	Element 3A	2.5	6/9/2014	HICA10, CYSC4, GERO, SEJA, DACA6	
348	1	Yes	Lower South Fork Skokomish River		2300	1.2	1.2	Element 3A	5	5/20/2014	CYSC4, HICA10, SEJA, CIVU, CIAR4	Treated the HICA10 at camp govey
348	1	Yes	Lower South Fork Skokomish River		2300	12.2	0.31	Element 3A	2	5/20/2014	CYSC4, GERO, PORE5	Hand pulled the CYSC4 along the road.
348	1	Yes	Lower South Fork Skokomish River		2300	0.3	0.3	Element 3A	8	5/14/2014	HICA10, CYSC4, SEJA, DACA6	Early treatment focused on the HICA10.
355	1A	Yes	Mainstem Hamma Hamma River		2500011	3	0.3	Polaris	1.3	9/17/2014	LALA4, VETH, CYSC4, GERO, PHAR3	
355	1A	Yes	Mainstem Hamma Hamma River	Hamma Hamma Pit	2500011	3	3	Element 3A	14	7/7/2014	SEJA, GERO, CYSC4, LALA4, CIVU	GERO located in the third opening to the east. Hand pulled the flowering plants and sprayed the rest. This area will need to be watched closely
355	1A	Yes	Mainstem Hamma Hamma River	Hamma Hamma Pit	2500011	1	1	Element 3A	10	5/15/2014	CYSC4, VETH, CIVU, LALA4, HYPE, DIPU	LALA4 and VETH are located in the second opening.
357	2	Yes	Mainstem Hamma Hamma River		2500	3	2.62	Element 3A	3	9/25/2014	CYSC4, GERO	GERO treated at MP 6.4 and 5.5
357	2	No	Mainstem Hamma Hamma River		2500	9.5	9.5	N/A	N/A	9/17/2014	SEJA, CYSC4	
357	2	Yes	Mainstem Hamma Hamma River		2500	3.8	3.8	Element 3A	20.16	9/9/2014	CIVU, SEJA, LEVU, GERO	
357	2	Yes	Mainstem Hamma Hamma River		2500	0.1	0.1	Element 3A	6.66	9/8/2014	CYSC4	
357	2	Yes	Mainstem Hamma Hamma River		2500	4.65	4.65	Element 3A	6.7	9/8/2014	CIVU, SEJA, LEVU, GERO	
357	2	No	Mainstem Hamma Hamma River		2500	0.2	0.2	Element 3A	20	7/7/2014	CYSC4	
358	2	No	Mainstem Hamma Hamma River		2502	0.4	0.1	Element 3A	2	7/7/2014	CYSC4	
361	1	Yes	Middle North Fork Skokomish River		2400	0.1	0.001	N/A	N/A	10/29/2014	GERO	Put out some grass seed on the GERO sites.
361	1	Yes	Middle North Fork Skokomish River		2400	0.25	0.25	Element 3A	8	10/9/2014	GERO	
361	1	Yes	Middle North Fork Skokomish River		2400	0.1	0.1	Element 3A	2	8/7/2014	CESTM, GERO	
361	1	NO	Middle North Fork Skokomish River		2400	6.6	6.6	N/A	N/A	8/7/2014	SEJA, CIVU	
361	1	Yes	Middle North Fork Skokomish River		2400	1	1	Element 3A	29	8/6/2014	GERO, SEJA, CIVU, ARMI2	There is a fair amount of ARMI2 around the picnic area.
361	1	NO	Middle North Fork Skokomish River		2400	8.5	8.5	N/A	N/A	8/6/2014	SEJA, CIVU	
361	1	Yes	Middle North Fork Skokomish River		2400	5.3	0	N/A	N/A	11/21/2013	GERO, SEJA, CYSC4, CIVU	Survey found a lot of GERO along 119 and FS 2400 before the pavement ends.

Ref #	2014 Priority	Priority for Retreat in 2014?	6th Field Watershed Name	2014 Site Name	Road #	Acres Examined for Weeds	Acres Treated (App'n Area or Manual Ac)	Herbicide Used	Herbicide Amount (oz)	Date of treatment	Species Treated	Comments
366	2	Yes	Middle North Fork Skokomish River		2451	2	1	N/A	N/A	8/7/2014	SEJA	
366	2	Yes	Middle North Fork Skokomish River		2451	0.3	0.3	Element 3A	1	8/6/2014	ARMI2, SEJA, CIVU, CYSC4	GERO along the road needs to be treated.
369	1A	Yes	Upper South Fork Skokomish River	Brown Creek Quarry	2354	1.5	1.5	Element 3A	5	5/20/2014	CYSC4, GERO, CIVU, SEJA	First treatment in the pit this year. CYSC4 is located on the west
369	1A	Yes	Upper South Fork Skokomish River	Brown Creek Quarry	2354	1.5	1.5	Element 3A	12	5/13/2014	GERO, CYSC4, CIVU, CIAR4, SEJA, HICA10, HYPE	slop of the pit and GERO is located on eastside of the pit where people are camping.
379	2	Yes	Upper South Fork Skokomish River		2355	6.6	4	N/A	N/A	8/18/2014	SEJA, CYSC4	
382	2	Yes	Upper South Fork Skokomish River		2340400	3	3	Element 3A	25	7/29/2014	GERO, SEJA, CIVU, CIAR4	
394	1A	No	Upper South Fork Skokomish River	V1043 Quarry	2360100	1.8	1.8	Element 3A	1.5	6/9/2014	TAVU, RUAR9, SEJA, HYPE	Very clean pit. Only 2 SEJA plants found. HYPE is also infected with the biocontrol beatles
395	2	No	Upper South Fork Skokomish River		2300	4.2	4	N/A	N/A	8/18/2014	SEJA	
399	1	Yes	Upper South Fork Skokomish River	Upper South Fork Skokomish	2340	0.3	0.1	N/A	N/A	5/19/2014	GERO	Hand pulled flowering plants
406	1	No	Upper South Fork Skokomish River		2360100	0.4	0.1	Element 3A	1	6/9/2014	SEJA, HYPE	Most of the SEJA was located at the beginning of the road.
411	2	Yes	Upper South Fork Skokomish River		2340450	0.7	0.7	Element 3A	17	7/29/2014	GERO, SEJA, CIVU	There is a lot of GERO between MP 0.0-0.3
418	1A	Yes	Lower North Fork Skokomish River		2340200	5.6	5.6	Element 3A	18.5	8/5/2014	SEJA, CIVU, CYSC4, CIAR4, ILAQ80	ILAQ80 was cut/stumped.
418	1A	Yes	Lower North Fork Skokomish River		2340200	3.4	3.4	Element 3A	18	8/4/2014	SEJA, HICA10, GERO, CIVU, CIAR4	GERO located at MP 4.8 and HICA10 at 4.2
418	1A	Yes	Lower North Fork Skokomish River		2340200	1.7	1.7	Element 3A	31	7/31/2014	SEJA, CYSC4, CIVU, CIAR4, TAVU, RULA	CYSC4 located at MP 0.2 would be a good place to come back to in the fall and lop down.
418	1A	No	Lower North Fork Skokomish River		2340200	1.2	1	Element 3A	6	7/30/2014	SEJA, CIVU, CIAR, CYSC4, HYPE	
418	1A	Yes	Lower North Fork Skokomish River		2340200	0.4	0.4	Element 3A	6	6/19/2014	SEJA, CIAR4, TAVU, CYSC4, GERO, CIVU	GERO is located around MP 4.6 where there is an old decomissioned road.
421	1A	Yes	Lower South Fork Skokomish River		2340210	1.2	1.2	Element 3A	5	7/30/2014	SEJA, GERO, ARMI2, CIVU, TAVU	
428	2	Yes	Mainstem Hamma Hamma River		2500040	1	0.3	Element 3A	1.3	9/8/2014	GERO, ARMI2, CIAR	GERO found on the trail near camp site 4 and in camp site 5 and also by the bathrooms.
428	2	Yes	Mainstem Hamma Hamma River	Lena CG	2500040	1	1	Element 3A	2	5/15/2014	GERO, ARMI2	Very little GERO found; however, there is quite a bit of ARMI2 showing up in the CG.
429	2	Yes	Mainstem Hamma Hamma River		2500030	0.3	0.05	Element 3A	5.3	9/8/2014	GERO	GERO was found in camp site 7 and at the trail head.
429	2	Yes	Mainstem Hamma Hamma River	Hamma Hamma CG	2500030	0.3	0.3	Element 3A	4	5/15/2014	GERO, ARMI2	
463	1	Yes	Upper South Fork Skokomish River		2353	0.3	0.3	Element 3A	7	8/28/2014	GERO	
463	1	Yes	Upper South Fork Skokomish River		2353	3.6	3.6	Element 3A	15	8/18/2014	SEJA, GERO, CIVU, CYSC4	
463	1	Yes	Upper South Fork Skokomish River		2353	0.2	0.2	N/A	N/A	5/28/2014	GERO, CYSC4	
464	1	Yes	Upper South Fork Skokomish River		2354	0.8	0.8	Element 3A	9	8/28/2014	GERO, SEJA, CIVU	GERO located at MP 0.3 and by the gate
464	1	NO	Upper South Fork Skokomish River		2354	3.15	3.15	N/A	N/A	8/27/2014	SEJA	

Ref #	2014 Priority	Priority for Retreat in 2014?	6th Field Watershed Name	2014 Site Name	Road #	Acres Examined for Weeds	Acres Treated (App'n Area or Manual Ac)	Herbicide Used	Herbicide Amount (oz)	Date of treatment	Species Treated	Comments
490	1A	Yes	Lower North Fork Skokomish River		2340250	3	3	Element 3A	24	6/19/2014	SEJA, CIVU, CYSC4, CIAR4, TAVU, ARMI2	There is a lot of SEJA along this road. It will need to be treated again early next season.
515	1	Yes	Upper South Fork Skokomish River		2356200	3.5	3.5	Element 3A	18	7/28/2014	SEJA, CIVU	There is a lot of SEJA along this road.
515	1	Yes	Upper South Fork Skokomish River		2356200	8	7.5	Element 3A	15	7/9/2014	SEJA, CIVU, CYSC4, CYSC4, HICA10	There is a lot of SEJA along this road.
516	2	Yes	Middle Fork Satsop		2356200	1.5	1	Element 3A	5	7/28/2014	SEJA, CIVU	Lots of SEJA and CIVU located here.
517	2	Yes	Middle Fork Satsop		2356200	3	3	Element 3A	13	7/28/2014	SEJA, CIVU	There is a lot of SEJA and CIVU here.
524	EDRR	Yes	Middle Fork Satsop		2365	0.25	0.25	Element 3A	12	6/17/2014	GERO, CIVU, SEJA, CYSC4	This was the first treatment done on this GERO site, It will need to be treated again this year and followed up on next year.
524	EDRR	Yes	Middle Fork Satsop		2365	0.1	0.1	Element 3A	6	6/17/2014	HICA10	First time treating this site. It will need to be watched and treated as needed.
585	1A	Yes	Upper West Fork Satsop River		2300	0.75	0.75	Element 3A	20	8/21/2014	CYSC4, SEJA, LALA4, TAVU, DACA6	There is a lot of LALA4 here.
585	1A	Yes	Upper West Fork Satsop River		2300	N/A	N/A	Polaris	7.7	8/21/2014	LALA4	
610	1	Yes	Lower South Fork Skokomish River	23 RD Deep Patch Borrow Site	2300	0.9	0.9	Element 3A	1	6/9/2014	SEJA, CIVU, DACA6, CYSC4, TAVU, HICA10	Fair amount of SEJA in the back of the pit. HICA10 was located in the back of the first opening.
632	1	Yes	Upper South Fork Skokomish River		2356	0.1	0.02	Element 3A	3	7/9/2014	HISA4, SEJA, CYSC4, CIVU, TAVU	This is the first treatment on the HISA4 here. It was located at the very beginning of the road.
835	1A	Yes	Lower South Fork Skokomish River		2340230	3.2	3.2	Element 3A	13	7/30/2014	SEJA, ARMI2, RULA, GERO, TAVU, CIVU, CIAR4, CYSC4	GERO was located at MP 1.2-1.3
835	1A	Yes	Lower South Fork Skokomish River		2340230	2.5	2.5	Element 3A	33	7/22/2014	SEJA, CYSC4, TAVU, RULA, CIAR4, CIVU, GERO	PHAR3 was found at MP 1.0
863	2	Yes	Mainstem Hamma Hamma River		2500	0.2	0.2	Element 3A	4	9/8/2014	GERO	This area needs to be treated first thing next year.
863	2	Yes	Mainstem Hamma Hamma River	Hamma Hamma CG loop trail	2500	1	0.5	Element 3A	14	5/15/2014	GERO, ARMI2, CYSC4, CIVU	GERO is only located on the bankside of the trail where it crosses the 2500. It is a fairly large infestation that is going to take multiple treatments.
864	N/A	Yes	Middle North Fork Skokomish River		2400	1.25	1.25	Element 3A	11	8/7/2014	CYSC4, LAGA2, SEJA, GERO, CIVU, RUAR9, RULA	Treated the spur that goes up to the water tower.
N/A	N/A	NO	Middle North Fork Skokomish River	Mt. Rose Trail	N/A	N/A	N/A	N/A	N/A	11/21/2013	None	Survey found no weeds along the trail.
Total						208.846	171.885		757.62			

APPENDIX C
ROCK SOURCE SURVEYS AND TREATMENT

2014 Rock Pits Inspected/Treated

Rock Source	Option A Rock Source Exceeds Requirements	Option B Rock Source Meets Requirements	Option C Rock Source Meets Minimum Requirement	Treatment (Manual)	Treatment (Herbicide)
Cushman Pit		5/29/2014			5/29/2014
V1043 Quarry		6/9/2014			6/9/2014
Brown Creek Quarry			5/13/2014		5/13/2014 5/20/2014
Hamma Hamma Pit					5/15/2014 7/7/2014 9/17/2014
23 RD Deep Patch Borrow Site			6/9/2014		6/9/2014
23 RD Rock Stockpile					8/21/2014

APPENDIX D OUTREACH AND EDUCATION

Public education and awareness continued to be key elements of Mason County's Noxious Weed Control program. Participation at local events included:

The MCNWCB's booth at Allyn Days, July 19th and 20th. During this event, contacts were made with the property owner behind the fence and with the Port of Allyn officials regarding the presence of knotweed. Several weeks later the knotweed was treated on both properties.

MCNWCB's booth at Oysterfest in October.

APPENDIX E

2014 Olympic National Forest Invasive Species List

Updated 03/19/2014

CLB

Code	Scientific Name	Common Name	Treatment Priority
AEPO	*Aegopodlum podagraria*	Bishop's weed,goutweed	1
ARM12	*Arctium minus*	lesser burdock	1
BOOF	*Baraga officina/is*	common borage	1
BRTE	*Bromus tectorum*	cheatgrass	1
BUDA2	*Buddleja davidii*	butterfly bush	1
CEDES	*Centaurea debeaux/1*	meadow knapweed	1
CEDI3	*'Centaurea diffusa*	diffuse knapweed	1
CEJA	*Centaurea jacea*	brownray knapweed	1
CESTM	*Centaureo stoebe* ssp. *micranthos*	spotted knapweed	1
DIFU2	*Dlpsacus fullonum*	Fuller's teasel	1
GERO	*Geranium robert/anum*	herb Robert,stinky Bob	1
HIAU	*Hieraclum aurantiacum*	orange hawkweed	1
HICAIO	*Hieracium caespitosum*	meadow (yellow) hawkweed	1
HISA4	*Hieracium sabaudum*	European hawkweed	1
LAGA2	*Lamiastrum galeobdolon*	yellow archangel	1
LYPU2	*Lysimachia punctata*	large yellow loosestrife	1
LYVU	*Lyslmachla vulgaris*	garden yellow loosestrife	1
ORVU	*Origanum vulgare*	oregano	1
POCU6	*Polygonum cusp/datum*	Japanese knotweed	1
POPOS	*Polygonum polystachyum*	Himalayan knotweed	1
POSA4	*Palygonuf!J sacha/inense*	giant knotweed	1
POB010	*Palygonum x bohemicum*	Bohemian knotweed	1
PORES	*Potent/l/o recta*	sulphur cinquefoil	1
SEJA	*Senecio jacobaeo*	tansy ragwort	1
SILAA3	*Silene latifol/a* ssp. *alba*	bladder campion	1
SYOF	*Symphytum afficinale*	common comfrey	1
VETH	*Verbascum thapsus*	common mullein	1
VIMA	*VInca major*	bigleaf periwinkle	1
VIM12	*Vinca minor*	common periwinkle	1
CIAR4	*C/rslum arvense*	Canada thistle	2
CIVU	*Cirsium vulgare*	Bull thistle	2
COAR4	*Convolvulus arvensis*	field bindweed	2
CYSC4	*Cytisus scoparius*	Scot's broom	2
DACA6	*Daucus carota*	Queen Anne's lace	2
HEHE	*Hedera helix*	English ivy	2
HYPE	*Hypericum perforatum*	common St. Johnswort	2
ILAQ80	*flex d_quifolium*	English holly	2
LALA4	*Lathyrus latifolius*	everlasting peavine	2
LYSY	*Lathyrus sylvestris*	flat pea	2
PHAR3	*Phalaris arundinacea*	reed canarygrass (Including ribbon grass)	2
PRLAS	*Prunus laurocerasus*	English laurel	2
RUAR9	*Rubus armeniacus*	Himalayan blackberry	2
RULA	*Rubus /aciniatus*	cutleaf blackberry	2
TAVU	*Tanacetum vulgare*	common tansy	2
DIPU	*Digitalis purpureo*	purple foxglove	Tolerate
HYRA3	*Hypachaeris radicata*	hairy catsear	Tolerate
LEVU	*Leucanthemum vulgare*	oxeye daisy	Tolerate
LOPE80	*Lotus pedunculatus*	big trefoil	Tolerate
PLLA	*Plantago lanceolata*	narrowleaf plantain	Tolerate
RARER	*Ranunculus repens* var. *repens*	creeping buttercup	Tolerate
TAOF	*Taraxacum officinale*	common dandelion	Tolerate

What are noxious weeds?

Washington's noxious weeds are invasive exotic introductions. None of them are native to Nashington. Noxious weeds create public heafth hazards, lower property values, reduce enjoyment of recreational areas, decrease agricuftural productivity, and degrade wildlife habitat. Noxious weeds are everybody's problem-the farmer, the home owner, the environmentalist, the recreational visitor, the public land manager, and the elected offiCial.

What are landowner responsibilties under the state noxious weed law, RCW 17.10?

All landowners, including city, county and state governments, are required to eradicate aU Class A weeds and control Class B designate and selected Class B and Class C weeds on their property. There are many ways to control noxious weeds; state law does not dictate method. The type of control selected by the landowner should take into consideration the weed, s life cycle, distribution (extent of the problem) and location.

INTEGRATED PEST MANAGEMENT

Mechanical: Cutting and destroying flower heads -you may have to cut several times to prevent seed production. Always bag and destroy all plant material (include all roots).

Herbicides and Biological: Please cootact your local weed control authority prior to using herbicide or biological material.

lJ!!n!W: Pasture management, control grazing; replant disturbed soil areas; and practice

Preventative: When possible think about planting native plants instead of introducing exotic plants.

To help protect the State's resources and economy, the Washington State Noxious Weed Control Board adopts a State Noxious Weed List each year ry./AC 16-750). This list classifies weeds into three major classes – A, B. and C – based on the stage of invasion of each spedes and the seriousness of the threat they pose to Washington State. This classification system is designed to:

Prevent small infestations from expanding by eradicating them when they are first detected

Restrict already established weed populations to regions of the state where they occur and prevent their movement to un-infested areas

Allow flexibility of weed control at the local level for weeds that are already widespread.

WEED'EM OUT

IIOZJOIJs WUOS OIIIl6t

!!!RESOURIES

To learn more about noxious weeds and noxious weed control in Mason County and Washington State, please contact:

Mason County
Noxious Weed Control Board
303 N. 4th Street
Shelton, WA 98584
(360)427-9670 ext. 592
Email: PatriciaG@co.masonwa.us

e.
http://mason.wsu.eduM'eeds/index.htrnl

WA State Noxious Weed Control Board
P.O. Box 42560
Olympia, WA 98504-2560
(360)-725-5764

Email noxiousweeds@aqrwa.gov

Website: http/www.nwcb wa.aov

WA State Department of Agriculture
21 North First Avenue #103
Yakima, WA 98902
(509) 225-2604

WA !;t t'' nep !'fu! >nt of !=rnii'!J)'
Aquatic Plants
lli:R/.....ecyWJ.gov/p/oa 'P'ar:As.htm!

2014

Mason County

Noxious Weed List

Lesser celandine (Ficaria vema)
new C!ss B norjous \'!eed for 204

Selected for control in Mason County

The Mason County Weed List Is updated annually and Is made up of all Class A, Class 8 designates, and any selections by the County Weed Board from the Class 8 or Class C weed list.
a *denotes those species known, or suspected of occurring, in Mason County.*

Class A Weeds

Non-native species whose distribution in Washington is stiR limited. Preventing new infestations and eradcating existing infestations are the highest priority.
Eradication is required by lawl

coovnon au!W
cadgrass, coovnon
cadgrass, dense-lbwered
cadgrass.
cadgrass, smooth
dye(s woad
eggleal SfXJrge
lase.lirome
lklating wilow
llowering rush
French broom
gillfJC rooslard
aanthogweEd
goatsrue
hyitilla
jOOnsoograss
a KTWIIEEC!, DIGIE ad
kfwtieed, Vodlin
kudzu
me<rlwlclary
aientalclematis
starthistle
reed sweetgrass
riioofteld!Urush
asage, clary
sage,Medterranean
shinygmum
siverleaf ni(titshade
aSpanish broom
SfXJige flax
Syrian
Texas blooweed
tNsUe, Itaian
thisUe, rnlk
INsUe, slenderflcrooer
vari rritkil
id four-o'clock

Crupina vulgaris
Spartina anglica
Sparlina derJsilb'a
Spartina patens
T5Sparti:' mifml
bia oblongata
ypodi1R71 *syfvalicvm*
Ludwigia pefDdes
&Jtotoos 1R71be1a1us
:!a
liet<JCiewJ martegazzianum
Ga!egaolficinais
HydnVa vertklata
Sorghum haleperise
Centaurea macrocepha!a
Centaurea nigrescens
Puetoria moo/ana var. lobala
Salvia
OematiscxierAalis
Centaurea caJcitrapa
Gl)teriamaxima
Schoenopledus *mucronatus*
SaMasdafea
Salvia *aelhiopis*
Geranium lucidlR7J
saanum
Spatlium juncewn
1J!Yme1aea *passerina*
Z labago
Llhuscili8tis
Catrluusp
SijOOm *marianum*
Carduus teooillotvs
hetergil)'t!m
l.lirabilisnyaagllea

Class B Weeds

Non-native species presently fimited to porlions of the State. Species are designated for control in regions where they are not yet widespread. Preventing new infestations in these areas is a high priority. In regions where a Class B species is already abundant, control is decided at the local level, with containment as the primary goal.

Class B-Designates in Mason County Controlis required.

ai*Jeweed
a Brazian elodea
OOgloss, annual
bugklss, coovnon
camelthom
acoovnon fennel
acoovnon reed (nonnative
ooly)
oa.naian toadllax

fanMXt agase
haiywWertl
ahaMweed, orange
haMweedoxtongue
aliaw!<weeds:AI rmnaive

species and hybrids *d* the
mead<INSIDjenus
aHaw!<weeds: AI rmnaive
species and hybrids *ci* the
wal
hoary_!yssum
hoondst

.1M
. brown
a knapweed, meadow
. Russian
akn. spated
a knotweed, fii Mayan
kodlia
loosestrife, garden

perenriat_pewecweed
..!!)Xisoo herrlodl
apdl:eman* s h001et
lfeVile
rush sketeta-M'eed
S<Atcedar
asp getaurel

Echi mi1Jigara
Egeria densa
Anchusa arvensis
Anchusa offJCina/is
Alhagimauttii1MI1
Foericulum vulgare
Pflragmlesaus/ralis

l.ilaria dalmatK;a ssp. *dafmatica*
Cabonila ca«iniana
UlexflUIllp86US
Epilobium hilsutum
Hielaciumaurantiarom
Picris hietaciOOes
Hieradum, subgenus Pilosalla

Hietadum, subgenus *HieiBCium*

Betf«<a incana
umofflcinale
!!Jr!Ii!a lruticosa
Centaurea nigra
Centaurea jacea
Centaurea jacea *x nigra*
/ocl'ojibl repens
Centaurea sloebe
Pdygonum pdysIllchyum
I<aJiia soopariа
Lysimachia vulgaris
lirum
Lepidi m lalifolium
ConiOOl *macutatum*
Impatiens g/arl:lulifare
TnlMus terrestris
juncea
Tamarix *tamOSissima*
CJarMe*taureola*

sptlge, leafy
sptJge, myrtle
asulfur cinquefal
thistle, musk
thistle, Pumeless
thistle, ScOO:li
velvetlea'
'Niller Jlimrose

yelbtl
a yellow *nutsedge*
yelbtlstarthistle

Eup/Kirlja asuta
Eup/Kirlja mymtoles
Po/enlila recta
Carduusnutans
Carduus acanthoides
Olopordum acantlium
Abulilon ff
Ludlligfa hexapelala
Blpliaaiba
Nyny:hoidespeltata
esaienlus
Centaurea solsfiia/is

The Mason County No ious Weed Control Board has "selected" the following no ious weeds for control in Mason County.

Class B-Setect in Mason County Controlis required

aiffuse
llsser cetarnne
otoosestrife, pu
loosestrife, wand
atansy raQ\\011
owidchervil

Centaureadiffusa
FJCariavema
Lythrumsa/icaria
Lythrum lityalum
Senecio jarobaea
Nihriscuss;Mlslris

Class C-Setect in Mason County Controlis required

obuffalobor
ocoovnon teasel
apecenriat sowtlistle

Scianumrostratum
Dipsacus *fulorum*
Sonchus arvensis ssp. 8Mitlsis

Non-Regulated No ious Weeds:
The following Class B and C weeds from the state no ious weed list also impact Mason county, but are widespread. Property owners in Mason County are not required to control these species, but control is recommended.

Class B

abufferllyOOsh
aE\KasianWillemWbl
a grass-leaved arrowhead
ahelb Robert
a knotweed, BOOemiarl
aknaweed, giant
aknaweed, Japanese
a Scotch broom
ayelow archangel

BuddlejadaWdii
slicafLm
Sagiltaria graminea
Geranirm *robettianum*
l'ol)vooom x *bohent:tJm*
Pol)vooom sachalinensa
PtiygaMn cusp«<aaum
Cytisus scoparius
LBlliastrom gaJeobdOOn

Class C

acoovnon catsear
acoovnon groundsel
acoovnon SI Johnswort
acoovnon tansy
aever11990 bla:kberry
afield OOKMeed
a Engish ivy -*!011* rutivars ooty

aHimaayan blaiberry
act!man's beard
aoxeye daisy
areed canarygrass
ascentless mayv.wd
asmoolhseed atata dodder
a!Nstle, bul
athistle, Canada
awhile cocile
awild canol
iris

Hypochaeris radialia
Senecioi1Jigatis
HypericOOl perforatum
Tanacetum vr.Jgare
Rubuslacirialus
arvensis
Hedefa heix.
'Pittsburgh', and "Star'; *H. hibemN:a* 'Hiberica'
Rubus anneniacus
Oemiiis *vialba*
Leucanthenun vulgare
l'tialaris! Widinacea
Matricalia peilolata
Cuscuta apptiiXirn<e
Cilsium vulgare
Cilsium81Yer1S8
Silane *lalikia* ssp. *alba*
Daucus carola
*Irisp*seudaooros

English Ivy has *been idenUfied by* the Masoo *County Noxioos Waad Q)ntrol Board* as a *high priody* species *for edvcalion dunng lha 2014 season.*

Noxious Weeds are non-native plants introduced to Washington State that can be highly destructive, competitive, and difficult to control. These plants invade our croplands, rangeland, forests, parks, rivers, lakes, wetlands, and estuaries causing both ecological and economical damage that affects us all. Noxious weeds can:

- Lower crop yields
- Reduce forage quality
- Destroy plant and animal habitat
- Displace native plants
- Reduce recreational opportunities (*e.g.*, fishing, hunting, swimming and hiking)
- Clog waterways
- Decrease land values
- Increase erosion and wildfire risk
- And some are toxic to humans and livestock

Please help protect Washington's economy and environment from noxious weeds!

To help protect the State's resources and economy, the Washington State Noxious Weed Control Board adopts a State Noxious Weed List each year (WAC 16-750). This list classifies weeds into three major classes- A, B, and C- based on the stage of invasion of each species and the seriousness of the threat they pose to Washington State. This classification system is designed to:

- Prevent small infestations from expanding by eradicating them when they are first detected
- Restrict already established weed populations to regions of the state where they occur and prevent their movement to un-infested areas
- Allow flexibility of weed control at the local level for weeds that are already widespread.

WEED'EM OUT

NOXIOUS WIEOS D M16\
!I!! RESOURUS

To learn more about noxious weeds and noxious weed controlin Washington State, please contact:

WA State Noxious Weed Control Board
P.O. Box 42560
Olympia, WA 98504-2560
(360) 725-5764

Email: noxiousweeds@agr.wa.gov

Website: http://www.nwcb.wa.gov

Or

WA State Department of Agriculture
21 North First Avenue #103
Yakima, WA 98902
(509) 249-6973

Or

Your local County
Noxious Weed Control Board

County Noxious Weed Control Board contact information can be found on our website's homepage by clicking on the box 'County Links'.

2014

Washington State Noxious Weed List

Lesser celandine *(Ficaria vema)*
a new Class B noxious weed for 2014

Li:si ar rcwgeu alpi1abeiically by:
COMMON NAME

Class A Weeds: Non-native species whose distribution in Washingtoo is stilllimijed. Preventing new infestations and eradicating existing infestati011S are the highest priority. Eradication of all Class A plants is required by law.

Class B Weeds: Non-native species presently limited to portions of the State. Species are designated for control in regioos where they are not yet v.;despread. Preventing new infestations in these areas is a high priority. In regions where a Class B species is already abundant, control is decided at the local level, with containment as the primary goal. Please contact your County Noxious Weed Control Coordinator to learn which species are designated in your area.

Class C Weeds: Non-native species that are typically v.;despread in WA or are of special interest to the state's agricu ural industry. The Class C status allows counties to require control if locally desired. Other counties may dloose to provide educatioo or technical consultation.

Class A Weeds
Eradication is required

common crupina	*Qupilavu aris*
cordgrass, common	*Spartina* angfca
cordgrass, dense-flowered	*Spartina densfflora*
cordgrass, sattmeadow	*Spartina patens*
cordgrass, smooth	*Spartina altemiflora*
dye(s woad	*Isatis tincloria*
eggleaf spurge	*Euphorbia oblongata*
false brome	*Brachypodium sylvaticum*
Healing primrose-wiDow	*LudNigia peploides*
Howering rush	*Butomus umbeJalus*
French broom	*Genista moospessulana*
gartic mustard	*Aliaria 00/ata*
giant hogweed	*Heradeum mantegazziantiJl*
goalsrue	*Ga/ega* offiCilafs
hydriDa	*HJUdla vertD/lata*
Johnsongrass	*Sotghum halepense*
knapweed, bighead	*Centaurea maaocephala*
purple starthislle	*Centaurea calcRrapa*
reed sweetgrass	*Gf)teria maxima*
ricefll!ld bulrush	*Schoenoplectus mtCOOatus*
sage, clary	*SaMa sc/area*
sage, Mediterranean	*SaMa ae/hiqlis*
shiny geranilll	*Geranium /ucidum*
silverleaf nghtshade	*Solanum elaeagnifo/ium*
Spanish broom	*Spartium junceum*
spurge flax	*Thyme/a asserina*
Syrian beancaper	*Zygophy8um fabago*
Texas blueweed	*Helianthus ciNaris*
thislle, Italian	*Carduus pycnocephalus*
thislle, milk	*Si/ybum marianum*
thislle, slenderflower	*Carduus lenuiflorus*
variable eaf miWoil	*Myrigl hyllum heterophy8um*
wild four-o'clock	*Mirabilis nyclaginea*

Class B Weeds

bluetteed	*Ec/Mr* vulgare
Brazilian elodea	*Egeriadensa*
bugloss, aMual	*Anchusa* at Vensis
bugloss, common	*Anchusa olficinalis*
butlerftt bush	*Buddie@_ davidi*
camellhom	*AllagimaUIOilRTI*
common fennel (except bulbing fennel)	*Foeniculum vulgare* (except *F. vulgare var. azoricum*)
common reed (noonative genotypes on)	*Phragmiles austrafis*
Dalmatian toadHax	*Linaria dalmatica* ssp. *dalmatica*
Eurasian waterrnilfoil	*Myri()jlllyOum S)icatum*
fanwort	*Cabomba caroliniana*
gorse	*Utexe aeus*
grass-leaved arrowhead	*Saginaria graminea*
hairy wilowherb	*Epilobium hirsutum*
	Picris hieracioides
	Hieracium aurantiarun
	Hieradum, subgenus
hawkweed, oxtongue	
hawkweed, orange	
hav.1(weeds: All nonnative	
meadow subgenus	

houndstongue	*Cynoglossum otrm/Me*
indgobush	*Amolpha fnlltosa*
knapweed, black	*Cenlatrea nigra*
kna brown	*Cenlatrea jacea*
teed diffuse	*Cenlatrea dilfusa*
knapweed, meadow	*Cenlatrea jacea x nigra*
kna teed, Russian	*Acrop#lon repens*
l_napweed, spotted	*Centaurea stoebe*
knotweed, Bohemian	*Polygonum x bohemicum*
knotweed, giant	*Po/ygQnum sachalinense*
knolweed, Himalayan	*Polygonum polystachyJ/H!*
knotweed, Japanese	*Polygonum cuspidatum*
kochia	*Kochis scoparia*
lesser celandine	*Ficaria verna*
loosestrife, garden	*Lysimachia vulgaris*
loosestrife, pur e	*Lythrom saftcaria*
loosestrife, wand	*Lythrom virgatum*
parrotfeather	*M um aquaticum*
perennial rweed	*Lepidum /atifoium*
poisoo hemlock	*Conium macu/atum*
policeman's heme!	*Impatiens glanduffera*
punclurevile	*Ttibulus terrestris*
rush skeletonweed	*COOndnJa juncea*
salcedar	*Tamarix ramosissima*
Scotch broom	*Cytisus scoparius*
spurge laurel	*Daphne/aureola*
spurge, lea	*Eupholbia esula*
spurge, myrtle	*Eupholbia myrsinites*
sr cinquefoil	*PotentiUa recta*
tansy ragwort	*Senecio jacobaea*
lhisle, musk	*Carduus nutans*
thislle, plumeless	*Carduus acanthoides*
lhislle, Scotch	*Onopordum acanthium*
velvelleaf	*Abutilon lheophrasti*
water primrose	*LU<Wiigia hexapetala*
v.Mebryort(	*iiaalba*
wldchervi	*Anlhriscus s}'Westris*
yellow archangel	*Lamiaslrum* gaJeobdoloo
yelklo'l floatingheart	*NjrrJJOOides peltata*
yelblv slarthislle	*Centatrea so/stitialis*

black henbane	*Hyos:yamus niger*
blackgrass	*A/qJectlus m)Osrxoides*
buffalobur	*Solanum rostra/urn*
cereal rye	*Secale cereale*
common barberry	*Berberis vulgaris*
common catsear	*Hypiplaeris radicata*
common groundsel	*Senecio vulgaris*
common St. Johnswort	*Hypericum perforatum*
common tansy	*Tanacetum vulgare*
common teasel	*Qipsacus fullonum*
cur leaf pondweed	*Polamogeton crispus*
English ivy - four cultivars only	*Hedera helix* 'Battica', 'PU\sburgh', and 'Star'; *H. hibemica* 'Hibemica'
evergreen blackberry	*Rubus /aciniatus*
field bindweed	*COilVONulus atVensis*
fr agrant waleri	*haea cxkJrala*
h wfl el	*Cardaria pubescens*
Himalayan blackberry	*Rubus armeniacus*
hoary aess	*Cardariarkaba*
Japanese ee rass	*Zostera*
joilted goatgrass	Aegiops *cytilr1tica*
lawnweed	*SoNva sessifis*
rodicis	*Lepyrodicfs 00/osteoides*
s ine sandbur	Cenchrus *longispinus*
nonnative callaill species and hybrids	*Typha* spp.
old man's beard	*Clematis vitalba*
oxeye daisy	*Leucanthemum vulgare*
perennial sowlhistle	*Sonchus arvensis* ssp. *arvensis*
reed canarygrass	*Phalaris awndinacea*
Russian olive	*Elaeagnus angustifo/ia*
scentless mayweed	*Matricaria perforata*
smoolhseed aWalfa dodder	*Cuscula approximala*
pikeweed	*Hemizonia pungens*
2Jlirrj cocklebur	*XanlhiUm spinosum*
lhislle, Canada	*Cirsi11m mven.<>*
Swainsonpea	*Sphaerophysa sa/sula*
lhislle, bull	*Cirsivm vulgare*
tree-of-heaven	*Aianthus aNissima*
kna_pweed, Vochin	*Centaurea nigrescens*

white cockle	*Siene /allo/ia* ssp. *alba*
kudzu	*Pueraria* moolana var. *lobata*
meadowclary	*Salvia pratensis*
orientalclematis	Clema#s *oriental/is*

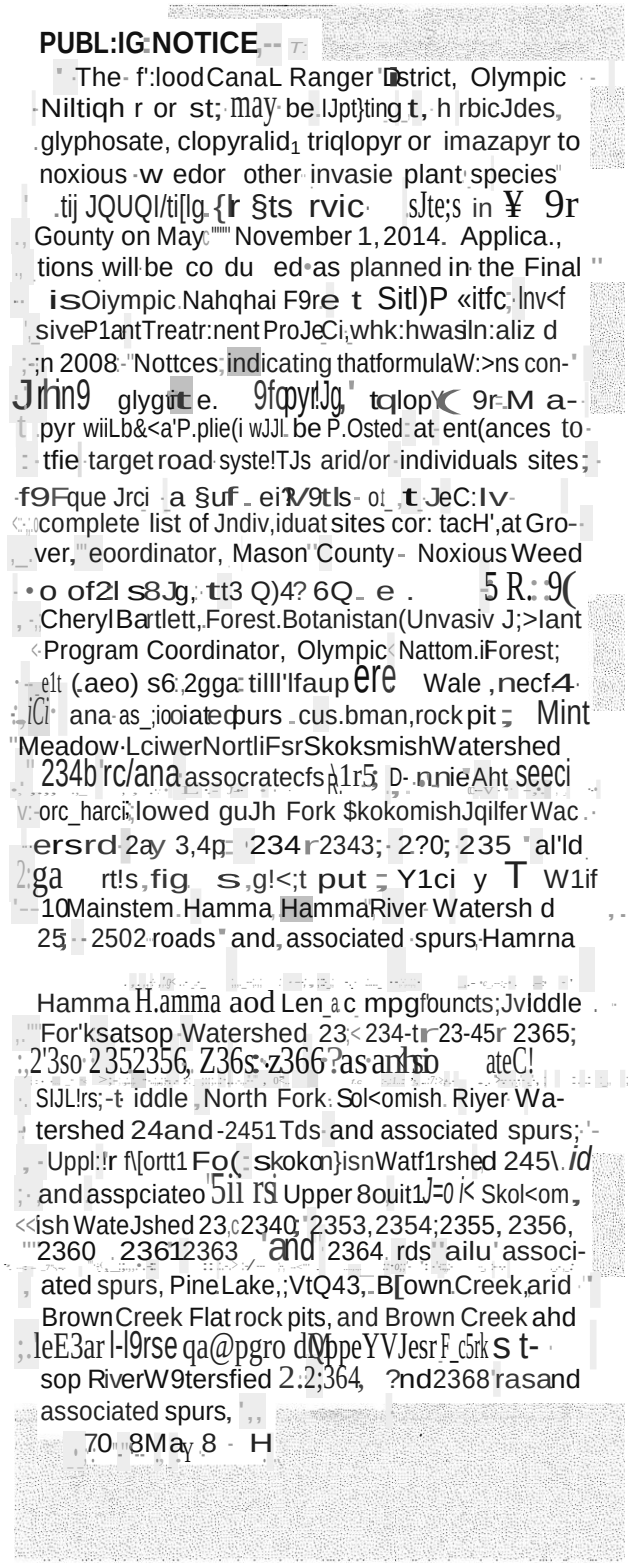
species and hybrids of the wall subgenus	*lieradum*
herb-Robert	*Geranium robertianum*
hoary a ssum	*Berteroa incana*

Class C Weeds

absinlh wormwood	Artemisia *absinthium*
Austrian f eldCiess	*Rotjlpa auslriaca*
babysbreath	*Gypsophtla paniculata*

carrot (except where wid commercialtf grown)	*Daucus carota*
yelbwflag iris	*Iris pseudacolus*
eliaN\oadtlax	*Linaria V WJaris*

APPENDIXG



PUBL:IG NOTICE

The f':lood CanaL Ranger District, Olympic Niltiqh r or st; may be IJpt}ting t, h rbicJdes, glyphosate, clopyralid1 triqlopyr or imazapyr to noxious w edor other invasie plant species tij JQUQI/ti[lg {r §ts rvic sJte;s in ¥ 9r Gounty on May November 1, 2014. Applica., tions will be co du ed as planned in the Final isOiympic Nahqhai F9re t Sitl)P «itfc; Inv<f siveP1antTreatr:nent ProJeCi,whk:hwasIn:aliz d ;n 2008 Nottces indicating thatformulaW:>ns con- Jrhin9 glygtit e. 9fqpyrJg, tqlopy 9r M a- pyr wiiLb&<a'P.plie(i wJJL be P.Osted at ent(ances to tfie target road syste!TJs arid/or individuals sites; f9Fque Jrci a §uf ei?V9tls ot t JeC:Iv complete list of Jndiv,iduat sites cor: tacH',at Gro- ver, eoordinator, Mason County Noxious Weed o of2l s8Jg, tt3 Q)4? 6Q e . 5 R. 9(CherylBartlett,Forest.Botanistan(Unvasiv J;>Iant Program Coordinator, Olympic Nattom.iForest; e1t (.aeo) s6 2gga tilll'lfaup ere Wale ,necf4 iCi ana as_;iooiatedpurs cus.bman,rock pit Mint Meadow·LciwerNortliFsrSkoksmishWatershed 234b rc/ana assocratecfs 1r5 D- nnie Aht seeci orc_harci lowed guJh Fork $kokomishJqilfer Wac ersrd 2ay 3,4p 234 r 2343; 2?0; 235 al'ld ga rt!s fig s g!<;t put Y1ci y T W1if 10Mainstem Hamma HammaRiver Watersh d 25 2502 roads and associated spurs Hamrna

Hamma H.amma aod Len a c mpgfouncts;JvIddle For'ksatsop Watershed 23 234-tr 23-45r 2365; 2'3so 2352356, Z36s z366 ?as anhsio ateC! SIJL!rs;-t iddle North Fork Sol<omish Riyer Watershed 24and -2451 Tds and associated spurs; Uppl:!r f\[ortt1 Fo(skokon}isnWatf1rshed 245\ id and asspciateo 5il rsi Upper 8ouit1J=0 K Skol<om ish WateJshed 23,c2340; 2353, 2354;2355, 2356, 2360 2361 2363 and 2364 rds ailu associated spurs, PineLake,;VtQ43, B[ownCreek,arid BrownCreek Flat rock pits, and Brown Creek ahd leE3ar l-l9rse qa@pgro dMppeYVJesr F_c5rk s t- sop RiverW9tersfied 2.2;364, ?nd2368 rasand associated spurs,

70 8May 8 H

Figure 1: Notice published in Shelton Journal.

ONSITE POSTING

NOTICE

Tri'ile 'iHe r odco1es ttrod f.ClVli" rr 9 1n rnHosa1tte wm !be aoedl ito itllilos suite lbetl:weell'il VilV :II,2@:il.4} ll'ilC0] Novemlberr 1,:2!01Ito <C II'iiLt r(Q) rril<Ol}rD<OJlWS wee<ds,wlliloclliil tclliln-eattell'il Il1l(t!) owe vegeatn tOil'il idlll1ldl ihlZJibloil:¢'.Jil: ol11l ttllilus <SJil"e .

IP> Il'ill11lete 1 <CI\:Q.o<SJ a nc ttooll1l co]atte': — — — — — — — — — — —

' Actual date of application contingent upon weather conditions.

llaJlJ@<eil:eco] <OJ:UO<QH\.f.l§ !$1PJ<edte$i' * SCO'ich broom, Canada i·hisi'le, ransy ragwort. spotted l<napweed, herb roberi·

*'Other weed species in this area may also be treated at this time.

NO USE RESTRICTIONS ARE IN PLACE

(Q)D©1kC@Ii1litial<C wo it ttrrte<a{ e©l ff(elrg]<eit fr:O@[lil MrlilttOaJ1fltsrr utt lhlal$ ©J n-K dJ.

FOR MORE INFORMATION CONTACT:

UVilcaJS(O)ll'il teoll,J.Jrf'il\tf li\'J(Ql}{0O!!.IIS Wee<dl <Col11l·rO> o mo
IP' il:lrndaJ CG!J"(t»Ver, MCNWC C<Olou·aJol11lail:on-
3((D3l . 4-l:h S{.
$1hle tl:ol11l,W!A 9l85Sl4J.
(ltO(Q)) "'J27 9l57(Q)}(59);!
Olr
(Q) wm!Plk li\'Jattoolll'ilalFoll"estt
«:U1lell"Sareitlt
IF<OJrrestt IB><OJitall'iln§it md! Jirruva 5hYe IP>aJrrutt frr(Q) waJm
«:oorrdinattor
11. 35 IS acLake fahrdl. §W, §Q.DDfce !A
Olympoa,WA 98512-5623 (3l6tCD)
956-2283

APPENDIX H

PROJECT FORMS

FACTS example

2014 FACTS Invasive Plant Treatment Data Form

'36

General Activity Fields

FS tracks areas treated by the Ref#, so if a Ref# is not recorded in the box to the left, we will have no record of that area being treated. You can document one Ref# per FACTS form (easiest for FS), or multiple Ref# on a single FACTS form. If you document multiple Ref# on a single FACTS form, these Ref # must all 1) be in the same 6" Field Watershed and 2) have been treated on consecutive days. *Rock Pits always get their own FACTS form.*

Rt;,ion	Fol"ft	District (circle one)*	6' Field Watershed Name	Owner	Workforce** (and JS:umber of Peol!le in Crew)
		PAC-S (03) ("" ir-S(0!))	'(v' -r"		
06	09	PAC-N(05)	Lo.xr $..,_, k__ <510(.	FS	fvic JVwcI6 ((._)

Method Code: bicide

Equipment Code (circle one):
- 711 hand sprayer
- kpack sprayer
- 713 hack & squirt
- 716 injector
- 721 mobile ground sprayer
- 000 otl1er

Job Code: 62F

Treatment Location and Comments:
If you are atin; a road, record Rond number w/ BMP &. E.'TP
Jr you are not tte3lina a roM (e:c:ae:amp;rouncl.rock pit. ete.) record Site Name
·Record this information Uit appears on the spreadsheet.·

fSUYoz..&> jv\. .p O.O EMF': t. z_

comments: LD&, of .Sc o. 7 1\-h Alw \ G to f' + w¥- &h.. &.T J-.1l. Y)ec...r " CG..Ivv+. PHAI3 c_.;c.,!:> ffi. + Mf 10 c.n!2 It c? ll 'ftoff2 10 be: \t.te.r eA t:>i1\-) - Th e.,Sor;'*ttcqfC. 'j +-tw- 1 nl''f-;Zt'¥.

Was entire area represented by the Ref# treated for weeds? Yes /

IJc.S If no.doson'bc what pan was treated above.

*Distnct Codes: Pacific North (05) -PAC-N; Pac1fic South (03) -PAC·S; Hood Canal North (02) -HC-N; Hood Canal South (01) -HC-S

**Workforce: County Name, Contractor Name, WCC, DNR, SCA, ONF, etc.,

Site/Inventory Fields

Should this area be a high priority for follow-up treatments next yea . Yes No (circle one)

Start Date	Stop Date	Acres examined for weeds	Application Site (circle one)	Licensed Applicator: Name and License II
7/z:z/1	7/z.YJti	5	edgeJROyer, Campground; urnv1wrocK source, Trailhead; Forest, Riparian; Admin Site, Other	G'lo.JV" 7LJoZ.I &c:S2r-1-- '02.12-
				Total Manual Infested Area treated: Donotlumpplo"o;tt <r. acres

Weeds Treated (Use PLANTS code; include common or scientific name as well if it is an uncommon weed on the ONF)	Infested Area Treated (DO NOT lump plants together)	% cover of species in Infested Area Treated (lumJIJlantOget!J t- use cover classes I - 9 listed below)	Comments
Sf :sA	Z.. acres	'2-	I<'YWY"I Y")c; e DIC.: r (I ?:d
CYSCt-\	v.S acres		
TA\LI	(!)_{!) \ acres	I	
i<LLLA	B.01- acres	\	
d1AR._	t),O\ acres	J	
I 'J\./ / I	I S acres	\	
c-rFRD	O.00 \ acres	\	- :82 \ .\ .....;t

Cover Classes: 1 ≤ Trace, 2 -1-3%, 3•3-5% 4•5-10%, S- t0-25o/o. 6 o 25-500/o, 7 -so-75%, 8 – 75-95o/o, 9 -95-100%

1\ote: Cover cluses are me3nt to be *aptJ'O'XImallons only*. DO NOT spend more tl\3n a few moments determining cover class.

Admin !.!se Qn l:i
Activity Unit FACTS /011:

Name·

Activity Subunit# _____Name·

Daily Log Day 1

Application Date	Time Start	Time Stop	Temp (F)	Wind Speed (MPH)	Wind Direction	Cloud Cover	Comments:
7/ZZ/1	1-IS	(5lfJ	6	'lz..	6\V	I	4P I'4:vl ▮▮▮▮ C.. b 1',r(f o ("""" '11\Cr/I!)I...}.

Total Volume of Mix Applied	UOM	Mix (oz herbicide 11 oallon water)	Dilutant	Applicators Names
j(o, 5	Gallons	Z. o7l gallon	Water	&ovu-- C{;,rM':(.--

Herbicide Product Name / EPA #	Amount of this herbicide product that was applied	Percent Solution	Adjuvant Product Name	Amount of this adjuvant that was applied	Percent Solution	Total Application Area (Acres):
E'}0Mc.,r-- 3	33 oz	\.5 %	fe;·rv-	) I oz	O.S %	6).6
	oz	%	\&..	oz	%	Acres Treated within 150' of Water: O. \
	oz	%		oz	%	Bankful Acres Treated (for NPDES): O

Daily Log Day 2 For use when more than one day is necessary to treat the infestation

Application Date	Time Start	Time Stop	Temp (F)	Wind Speed (MPH)	Wind Direction	Cloud Cover	Comments:

Total Volume of Mix Applied	UOM	Mix (oz herbicide 11 e:allon water)	Dilutant	Applicators Names
	Gallons	o7l gallon	Water	

Herbicide Product Name / EPA #	Amount of this herbicide product that was applied	Percent Solution	Adjuvant Product Name	Amount of this adjuvant that was applied	Percent Solution	Total Application Area (Acres):
	oz	%		oz	%	
	oz	%		oz	%	Acres Treated within 150' of Water:
	oz	%		oz	%	Bankful Acres Treated (for NPDES):

{From front page) Ref #: ;:,:) St.1rt Date: 7/l.l,h

Notes: PHAt:3 (oo,k£2.. ""-t-Nf IO

GERO found at MP 1.2 just north of the culvert.

Quarry Survey example

Invasive Plant Inventory for Rock Sources, Olympic National Forest

District or·For·est Weed Specialist compliance statement and signature:

This tlesiguation is valid for fiVo years from the inspection dtlfe listed below.

CHECK ONE:

D Option A. Rock source exceeds requirements: */have determined that this rock source to be completelvfree of weeds.* Weeds, even those listed *as* tolerated species, are not present in, and are not associated with, this rock source.

D Option B. Rocl< source meets requirements: */have determined that this rock source to be acceptable for use, with ttccep fttble levels of conftlmitwtion. It is vety unlikely that distribution of materials fi"om this rock source would contribute to the spread of noxious weeds.*

Any species listed as priority 1 by Olympic NF, OR those listed as Class A, B or selected weeds on State and County noxious weed lists, OR species of particular concern arc in or around rock source.

Species listed as priority 2 by Olympic NF (but not on State or County list specified above) may be present in small, isolated patches within or ncar the rock source. Typically, less than 10% of the pit either has weeds growing on it or potentially could contain weed seed or other propagules, and these areas arc easily isolated from rock source materials.

Species listed as tolerated are present to various degrees within and around rock source.

Option C. Rocl< source meets minimum requirements: */have determined fhM this rock source acceptable for use, but only if no other source is ttllltilable. Distribution of materials fi"om this rock source may contribute to the spread of noxious weeds if precautionaty measures are not followed These metr.l"llres are detcrihed intlte conuuenl.f hox helo111.*

Any species listed as priority 1° by Olympic NF, OR any species listed *as* Class A, B* or selected weeds* on State and County noxious weed lists, OR species of particular concern are in or around rock source.

Species listed as priority 2 by Olympic NF (but not on State or County list specified above) are present in patches, but some portions of the rock source are relatively free of weeds, are most likely are not contaminated with a significant amount of propagules (seeds, roots, etc.) from these species, and may be an acceptable rock source for FS lands. Typically, between 10–50% of the pit will have priority 2 weeds growing on it and/or potentially could contain seed or other propagules from these species, and these areas are easily isolated from rock source materials.

•Jn limited circumstances, as determined by the inspector, this box may be checked when species listed as priority 1 by Olympic NF, OR class B or selected weeds on State and County noxious weed lists are present in very small, easily isolated patches.

D Option D. Rock source fa ils to meet requirements. */ hal'e tletermiuetl that this source is uu.wifablefor use ttl litis time. Distribution ofmaterialsji-omthis rock source would likely contribute to the spread of noxious weeds.*

Weed species listed as priority 1 by Olympic NF, OR those listed as Class A, B or selected weeds on State and County noxious weed lists, OR species of particular concern are present in or around this rock source, OR weed species listed as priority 2 by Olympic NF are present to the extent that plants and/or propagules (seeds, roots, etc.) are present in significant portions of the rock source and cannot be isolated by precautionary measures.

Patricia A. Grover
Signature

6-9-14
Dale

Name of Rock Source: O .PtJ'' "'- ..V'''''EJ 'Ef. f-L/8'..L7 ,e, ll,]3,'''''-''.LJ/f.>P-'¶'J!.!.

NArrative of Pit Location (include, at minimum, road number and milepost):

Ref# (from project spreadsheet):

Coordinates of Location N: **E:** *UTM NAD 83 is preferred

Projection (circle one): (UTM NAD 83) (UTM NAD 27) (NAD 83 Albers) (Lat/Long) (Decimal Degrees) (Other):

Name and Title of Inspector: PA GROVER, MCNWXB Coordinator **Date of Inspection:** 6-9-14

Comments: Include mitigation measures that need to be implemented to minimize the chance of spreading weeds. This should include a description of what parts of pit are usable, and what parts must be avoided. This should also be shown in the sketch of the pit on last page.

Name of Rock Source: .:{3 4170 Ue /dcJ; 1 Jj Date inspected: 6-9-14

Species present:

Species Code	Common Name	Infested Area (acres)	Cover Class	Comments
S&/1		() P		ro"uncl:omar Z OYJ E !JsfecT FILLS o;e:>
1/!CIJ!IJ		O.I	.T	(t:/l)affi fX ano Di 4/flD tn ;_;j/III/ M/l/(i) 1
tcVSct/		{J.tJ I	T	
IfiLl		{).O/	T	
CIV!/		t).()/	.T	

Do not record tolerates ecies in this table.

DON'T FOilGET TO FILL OUT nus SECTION'

Estimated size of pit: u:r ncres
(I UCIC =43560 n', or appro.,imatcly 209 n x 209 feel. 1/1 C 4356 n', or 66 n x 66 n, or approximately 435 fl x 10 fl)

Percent of pit occupied by invasive plants %
This percent should indicate the percent of the pit that is NOT usable as a rock source as you find it on the day of the inspection. This includes area occupied by weeds AND the area potentially contaminated with seeds or other propagules.

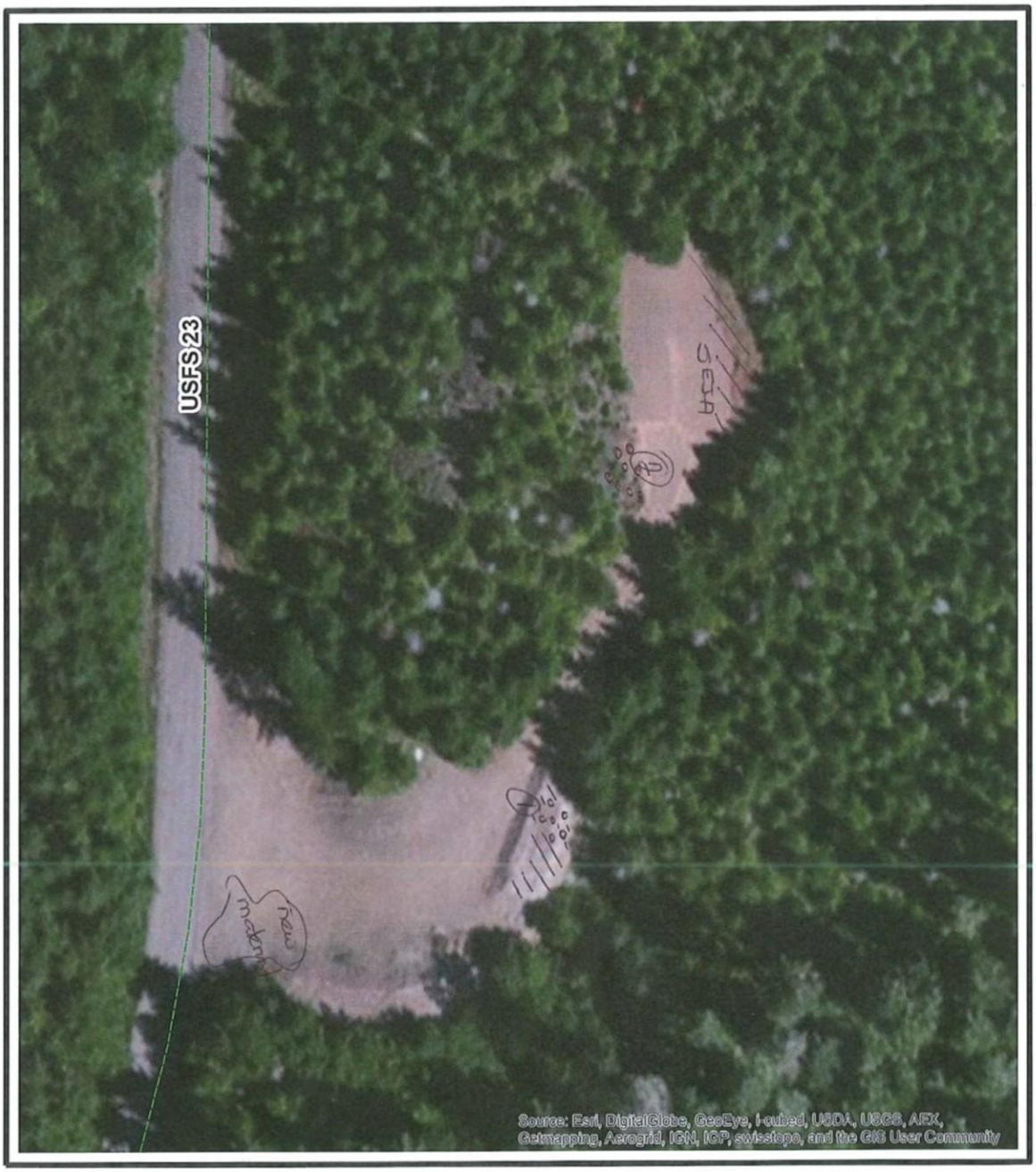
Was this pit treated for invasive plants during this visi No
If yes, please fill ou1 n FACTS form documenting lrenlmenl

Has this pit been treated for weeds before? @ No / Don't lmow If yes, what year? dt;2J.2._

Cover Class and Infested A•·ea (acres) columns are filled out exactly the same way as on the FACTS form.

Co\'tr Classes: I = Trace, 2 = 1-3%, 3=3-5% 4 = 5–10'/o, 5 = 10–25%, 6 = 25–50"/o, 7 50–75%, 8 = 75–95%, 9 =95-100"/o
Note COl\'C'f dnsn ..-e nr nt to be OffJ/ra.'riMCIIHMt$ o1IIJ· DO NOT sptndmore than • kw mommu dttmninifiA co\'tr dus

23 Road Deep Patch Borrow



Logend

-Ooonly-

.s.r..o.R.-

ChMtwnond R.-

-Rood

a0...

Ytnly ltood

0 70 140 Ft

SEJA

N

A

CA\O

APPENDIX I

Example of Completed Monitoring Form

Olympic National Forest
Invasive Plant Treatment Monitoring

Examiner name: 'y-1\ CD-Jefl-

Evaluation Date: 5<Zp', 17, GA0l

Ref# 3!V	
Project# and Name	F5 Ffl·::Oq±o·Dl \ rno+bm
From "Comments": Road number with BMP & EMP -OR- Project Area Desc.-iptor	
Date(s) of treatment	J 7/7/)L}
r.rrel·bici11'\\ or Manual tr-eatment (circle one)	

Weeds Treated (Scientific name or code)	Infested Area Tt·eated (acres)	Cover class from "% area examined for weeds infested with this species"	Percent efficacy of treatment (use codes on next page)
CV:SCJ	l.O	-2	fj3
;;2t=	c:>.o\	l	(o
LA-Lj\4_	LO	:J_	w6
C'1\JL1	1.5	l	85
G-ar)	O.COI	l	85
\/ET-H	{).	l	Lpj
ll'Y.PF	6.:)	.:;;)	UN
D\PU	O.S		u

Do you think this treatment area is a high priority for re-treatment next year?

{!31 No

Please provide comments on the next page, if you have any.

All information on page 1 of this datasheet comes from the "Herbicide/Manual Treatment Data Form", except for:

- Examiner name
- Evaluation Date
- Percent efficacy of treatment

For Percent efficacy of treatment, enter the code that best approximates the percent of the population that was eradicated:

Code	%Efficacy	Rating	Description
0	0	No effect	No effect can be detected on the target species population
03	1-5	Failure	Little to no effect can be detected on the target species population.
15	6-25	Poor	Treatment killed less than a quarter of the target species population.
35	26 – 50	Marginal	Less than half of the target species population was controlled.
65	51 – 75	Fair	Over half of the target species population was controlled.
85	76-90	Good	Treatment was successful in killing most of the target species population
95	91-99	Excellent	Over 95% of the target species population has been killed with the treatment.
100	100	Complete	Not a single individual of the target species population was found after a complete survey of the site. The infestation was eradicated.
UN	UNK	Unknown	Treatment efficacy/success can not be determined.

Comments: /J

/r;lc:F/dcn5 of !froBfc;ASftr i/YPc u

J_£Vt./ 6ecrcmInJ c£mLI)ait;(;;YJt:t51UC: (]j;tJc;< rr;

pJ, J1t nl5 s!JoJcl!Jef'n -k --/arfd

J/;e.s-e. s;;eoes as ;ued/

£.-f---l!L0.cy seems-tv Je t?,.\ tu!JC!!ekfe7

;:5 ;darA-f-ted UJ;ff> fjtJtJd{!{JucrofC', {)5 C0

frtW7t07 srk 1 1nr:s&d ;:Jianfs ;uere 0,:!;{/Jws

TechNotes PRAIRIE

resources for prairie and grassland managers

Backpack and Spot Treatment Calibration Guidelines

How do I make the most of my herbicide spot treatments?

Accurate timing, careful measurements of herbicide and uniform spray motions are essential to proper, economical application. Consistent spray motions can help obtain good coverage of troublesome weeds. Soaking scattered weeds rather than using regular spray motions may result in excessive rates that could injure desirable species.

How much herbicide do I put in my tank?

The mix amount is dependent on your spray volume and your application rate. Therefore, this question cannot be answered until we know the volume that is being applied with your particular spraying style in gallons per acre (GPA). The following step-by-step procedure will allow you to calibrate your spray volume (see answer at end).

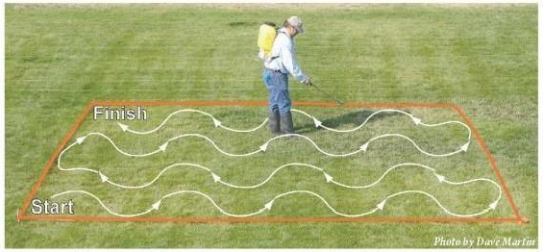
Sprayer Calibration

Six Simple Steps

The following step-by-step method of calibrating a backpack or hand-gun sprayer involves very little math or formulas. It is based on the following principal:

> *One gallon = 118 fluid ounces and your calibration area to be sprayed is 1/118 of an acre. Thus fluid ounces collected = gallons per acre.*

1. Clean sprayer and nozzle thoroughly. Then, fill the spray tank with clean water. Spray with water only to check to see that the nozzle forms a uniform spray pattern. If the pattern is uneven, check to make sure the nozzle is clean and replace it if needed. Adjustable nozzles should be set and marked to permit repeated use of the selected spray pattern. If necessary, add a marker dye to the water to more easily see your spray pattern.



1. Measure an area 18.5 feet by 18.5 feet, which is equal to 1/128th of an acre. If possible, this should be done in the field on which you will be spraying.

3. Time the number of seconds it takes to spray the measured area uniformly with water using gentle side-to-side sweeping motion with the spray wand similar to spray painting a home or automobile. Record the number of seconds required to spray the area. During application be sure to maintain a constant sprayer pressure and cover the entire area uniformly one time.

> *You should repeat step J ot lt a st twifl! and use the aW? rogeof the two times.*

4. Spray into a container for the average time calculated in step . Be sure to maintain constant sprayer pressure while you spray into the container.

5. Measure the number of fluid ounces of water in the bucket. The number of fluid ounces collected from the bucket is equal to the number of gallons of water per acre the sprayer is delivering. Volume sprayed in fluid ounces = gallons of water per acre (GPA).

6. Add the proper amount of herbicide to the tank. For backpack sprayers, use Table 1 to determine how much liquid herbicide to add to each gallon of water. For large sprayer, use Table 2 to determine the amount of liquid herbicide to add to your spray tank

find your spray volume in gallons per acre (GPA - calculated above) and read across the tables to determine the amount of herbicide to add to each gallon of water based on the recommended herbkide application rate.

Tip *Ust a syringt romtosurt herbicidelyouareapp/yinga low-ratt product likt MltstOnt (t.g., 5 to lflol/<X).*

ltsp=l<<
1/1 p=1.5«
1/4 p=l.l«

- Il tof0owA9foSafnasll(s.mt "esrf'qlirtMI Ibti<= ti'WO!oltdIntIlt IKhanangIllappli\alliOIIdan(peitiddfo.(cnuil. JOO!ioGJ!ftlff!S.ion cffllirl..-mlh:mlf9o1Jdinglil:msinog rf'CIl"fiMIU.rüdIlndfokM' dir«tions.S&al II'St!Kl Ofl!hisaltandLMctlr.ansftappty.(onsul!htbbt't bri<rt pw(ha:sfiii USf fOf'fuldl>Qils.

Tobie 1: Backpack or Other Smo/1-vo/ume Sprayers

Thtamoontclhtrblcicleyou rwdto add toeachtpllonofwater based on the recommenOed rate forth t Wffil you are treating.

6o/lons/A< (friHiiSI>p5)	Recomm«rdtdHerbkkkRatf!!Acrt				
	5floli<X	/floli<X	I pillt/1X	1QUOftlIX	lquarIll«
10	7.5cc/gal	10.S <«/gal	S p/gal	10p/gal	1*/o floz/gal
J0	S«/gal	7Occ/gal	J p/gal	6 p/gal	lflolIgal
40	J.8c<'/gal	S.Jcc/gal	1 ¹¹p/gal	4*/p/gal	1 ¹/J floz/gal
50	l.Occ/gal	l.lcc/gal	ltsp/gal	1 ¹/o tsp/gal	1 ¹l• floz/gal
60	2.5«/gal	J.5cc/gal	1/.J t5p/gal	3 ¹tsp/ 1	6'/;tsp/gal
70	1.1«/gal	l.Occ/gal	1 ¹/l tsp/gal	1 ¹/4 tsp/tjal	5 ¹/l tsp/gal
80	1.9<clgal	1.6cc/gal	1 ¹ tsp/gal	2 ¹ tsp/gal	4 ¹tsp/gal
90	1.7cc/gal	l.Jc<igal	1 tsp/gal	lisp/gal	4¹/4tSp/gal
10D	l.S<c/gal	1.1 <c/gal	1 tsp/gal	ltsp/gal	3 ¹/•tsp/gal

Uquid ''''''''''''''••tsp = teaspoa>s; TBS = tab/espoom; n 01 = nuid o'''''''1'' = 1lli;J teaspocns = 1 tablespcoo;8 thJid ounces = 1 cup; 1 tabfespom = 1 fluidounce; 1 rup = 16 rabftspOOIlS

Exampit for Ba<lpack Spraytn:?ou 1ia've completed the- calibration proc ure and appld 30 fluid ounctS In thi> mt'asuredarea. Therefore, your spray volume is 30GPA. l()O!(at Tabl(> 1 above fot the amoonttomixin 1 gallon ofwaw. Assuyou want to apply 5 fluidouoccf MIIffio• ac:rt;the amount listed for your voluTMI' (GPA) and this application rate ls Scc lneachgallon ofwater. Ifyoo are filling a 3-gallonbad:.pa<kspra.,,tr take this amount times 3 and you would rwd to measure IS cc (with a syr1nge) or 3 tsp of Milestone• for your 3gallon mix. It dotsn't take much.

Toble1: Larger Hond-gun Sprayers

Theamoontofherbicide you netd to mix In 100 gallonsofwaterbased on the rKommended rate forth wd you are treating.

/*,o//onr/1< (fromsl>p5)	Recommaukdllkrbkltk Rate'Acr				
	5tloi/M	7ffoz/tK	JpltJt/Q(	I quareloc	lquarii/oc
10	25.0flaz	35.0ftoz	5plnts	Squarts	IOquarts
J0	1 7fl02	1l.1fl02	J.J plnts	3.3quaru	6.6quarts
40	11.Sfl02	17.5fl02	l.S plnts	l.Squaru	S quarts
50	10.0fl02	14.0fl02	lplnts	1quarts	4quarts
60	8.Jfloz	1l.1floz	1.6plnts	1.6quarts	31quarts
70	7.lfloz	10.0floz	1.4plnts	1.4quarts	2.8quarts
80	6.Jfloz	8.8floz	US pints	US quarts	2.5quarts
90	S.6fl02	7.snoz	I.Ipints	llquarts	2.2quarts
IOD	S.Ofloz	7.0floz	I pints	I quarts	2quarts

Cootmlom: t6fluidouncts = 1 pint; 1 1tluidouncts = 1 art; 64fluidounces = lqualtS

bamplefor Larttr Sprayers: You cafbrate yoor sprayer and thtoutput is 50 GPA. andyoursprayer OOids lOOgallons. lhtamountof area you cantrtat is 2 acreswithyourful spray tank. Tht label requifts an herbkide application rateofS nozJ¥.re forth t target weed Yoo wootdadd 10ft oz ofherbldt toyoor tanksirxeyou are treating 2 acres witheachfulltankmix.

Appendix K
Forest Service Letter of Approval

USDA United States Department of Agriculture
Forest Service
Olympic National Forest
1835 Black Lake Blvd SW Suite A
Olympia, WA 98512
(360) 956-2300
FAX: (360) 956-2330

File Code: 2900
Date: June 25, 2014

Patricia Grover, Coordinator
Mason County Noxious Weed Control Board
303 N 4th Street
Shelton, WA 98584

Dear Ms. Grover:

Thank you for inquiring about utilizing supplemental crews to complete invasive plant treatments on Olympic National Forest. I am glad to know that additional help is available to Mason County for fighting weeds, and that multiple Agencies are working together to solve this problem.

You are authorized to use Washington Conservation Corps crews, working in partnership with the Washington State Department of Ecology and the Washington State Department of Natural Resources, to accomplish invasive weed treatments on the Forest. It is expected that these crews will work under your guidance and that they will follow all applicable regulations as outlined in the: 1) Olympic National Forest Final Environmental Impact Statement and Record of Decision: Beyond Prevention: Site-Specific Invasive Plant Treatment Project (March 2008), and 2) the Participating Agreement Between The Mason County (Noxious Weed Control Board) and the USDA, Forest Service, Olympic National Forest (#10-PA-11060900-018, July 2010). It is also expected that the crews will fill out all the necessary forms to document areas treated and amount of herbicide used, as this is necessary for our year-end reporting requirements.

I appreciate the work that the Mason County Noxious Weed Control Board has accomplished over the years in organizing and conduction invasive plant treatments on the Forest, and hope that we will continue to maintain this productive partnership for many more years. If you have any questions or concerns, please contact our Invasive Plant Program Coordinator, Cheryl Bartlett at (360) 956-2283.

Sincerely,

M. Hutchins

(for) RETA LAFORD
Forest Supervisor

Appendix L
Example of a Script Written for "Off the Land in Mason County" Radio Show

Today Mason County's Noxious Weed Control Program would like to introduce you to a new noxious weed, shiny geranium (*Geranium lucidum*). This isn't really a new noxious weed, it has been on the state noxious weed list since 2009; however, up until this past month the local noxious weed program believed that Mason County did not have any infestations of this noxious weed. But last month a plant savy Mason County resident reported a sighting of shiny geranium that the noxious weed program confirmed in northwest Mason County.

Alright, so what does this shiny geranium look like? Well, it resembles other weedy geraniums such as herb Robert (*Geranium robertianum*) and dovefoot geranium (*Geranium molle*). It has round leaves that are deeply lobed, very waxy and shiny, hence the name. The stems are usually tinged bright red and they really stand out if you see one. Shiny geranium also has small five petal, pink flowers. Overall, this noxious weed will grow up to 10 to 12 inches high.

So now you're probably wondering where you should be looking for it. Like herb Robert, shiny geranium is both sun tolerant and shade tolerant. In the Pacific Northwest, shiny geranium is most abundant in oak woodlands and open grasslands in the Willamette Valley in Oregon; however, we're not in Oregon and currently it isn't prevalent here in Mason County. So what you need to do is watch what you bring on to your property. When you're shopping for plants, make sure they are coming from a weed free nursery. Also, watch compost, soil and rock that you have brought in. A lot of property owners have noxious weed problems now due to seeds and plants that were brought in by outside resources.

Ok, what do you need to do if you find this invasive? First off, shiny geranium is a class A noxious weed in Washington state. This means that eradication is required by law. To do this there are a couple of options. Manual control is one choice when dealing with shiny geranium. You carefully hand pull or dig up the plant. Keep in mind flowering plants can still after-ripen and produce seeds after being pulled up, so place flowering plants in a trash bag to prevent the further spreading of seeds. Herbicide is another option. If you have any questions or want some advice please contact the Mason County Noxious Weed Control program at the WSU extension office.

Also, if you find this plant please take a picture of it and email the picture along with the location where the plant was found to patriciag@co.mason.wa.us thank you.

Work Cited

Brian Stallard (2014). Wetlands Face More Invaders with Climate Change. *Nature World News*. Web.

Neal Edward Flanagan, Curtis J. Richardson, and Mengchi Ho (2014). *In press.* Connecting Differential Responses of Native and Invasive Riparian Plants to Climate Change and Environmental Alteration. Ecological Applications. http://dx.doi.org/10.1890/14-0767.1