

**ROCKY MOUNTAIN ELK FOUNDATION  
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROJECTS**

**Gifford Pinchot South Zone and Columbia Gorge Habitat Enhancement  
RMEF Project # WA210087**

The Wildlife Forage and Habitat Enhancement Project on the South Zone of the Gifford Pinchot National Forest and in the Columbia River Gorge was developed by partners of the US Forest Service, WA Department of Fish and Wildlife, US Fish and Wildlife Service, and the Skamania County Noxious Weed Control Program. The goal of the project was to increase forage capacity for deer and elk and other wildlife species on eleven meadows or forest openings located on the Mt. Adams Ranger District of the Gifford Pinchot National Forest and on the Pierce Wildlife Refuge in the Ridgefield National Wildlife Refuge Complex. By decreasing infestations of unpalatable or toxic plant species in these feeding areas, the forage quality and quantity for deer and elk improved which also benefited the habitat for other priority species such as the mardon skipper (*Polites mardon*), pale blue-eyed grass (*Sisyrinchium sarmmentosum*), the western pond turtle (*Actinemys marmorata*) and the Oregon spotted frog (*Rana pretiosa*). Project actions increased the resilience and health of the forests and watersheds and helped to preserve the economic and recreational opportunities in Skamania County. Seven of the eleven meadows are within priority watersheds for Habitat Conservation and Restoration (TRACS 40 and 90) and one meadow falls within an Integrated Priority Watershed (TRACS 06) according to the Region 6 Terrestrial Restoration and Conservation Strategy (TRACS).

**Partners**

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**Field Start/Completion Dates**

Project: May 2021 – November 9, 2022

**Map Point: Latitude/Longitude in Decimal Degrees**

Project: 46.095636, -121.845182

**Project Accomplishments:**

The Skamania County Noxious Weed Control Program, with the help of the weed program from Klickitat County, controlled invasive, noxious weeds in 10 meadow systems totaling 1,421 gross acres on the Mt. Adams Ranger District (South Zone) of the Gifford Pinchot National Forest. With funding from a previous RMEF project (#WA200056) and the USFS (match for this project #WA210087), all sites were visited during two consecutive seasons. In 2021, crews treated 356 infested acres and 208 infested acres were controlled in 2022. Noxious weeds such as Canada thistle (*Cirsium arvense*), tansy ragwort (*Jacobaea vulgaris*), and houndstongue (*Cynoglossum officinale*) were primary target species while scotch broom (*Cytisus scoparius*), yellow toadflax (*Linaria vulgaris*), various hawkweed species (*Hieracium* sp.), and other non-palatable weeds were treated where present.

Much of the work occurred on sites that have been part of other projects to enhance habitat and forage properties for wildlife. Three sites have been recently treated for conifer encroachment, with Lost Creek Meadow being completed in 2020. All of them have been treated for noxious weeds for 5 or more years. In 2020 and 2021, the USFS, with the help of volunteers, planted 1,622 native plants and seeds across 5 acres of the Spotted Frog wetland-meadow complex as part of a larger restoration effort. In 2022, the National Wild Turkey Federation funded the planting of 1,500 native plants at one of the sites along the Wind River, north of Carson, WA.

At the Pierce National Wildlife Refuge in the heart of the Columbia River Gorge, the Skamania County Noxious Weed Program partnered with the US Fish and Wildlife Service and the Gorge Refuge Stewards on a large-scale habitat enhancement project for all wildlife that call the refuge home, including the state-listed western pond turtle. Elk, deer, bear, purple marten, chum salmon and many other birds, mammals, and insects are benefitting from the improvements made with noxious weed control. RMEF and USFWS funded over 100 gross acres (90% infested) of invasive blackberry (*Rubus bifrons*) removal in 2021 and 2022. In these areas, the addition of 400 native plants improved wildlife forage and habitat for all species. Volunteers spent 180 hours since May 1, 2021 and 455 hours in 2022 cutting blackberry and controlling other weeds such as English ivy (*Hedera helix*) and spurge laurel (*Daphne laureola*). The Skamania crew followed up with an herbicide treatment in the fall of 2021 and 2022.

Pierce Wildlife Refuge includes several hundred acres of retired hay fields and livestock pastures. Approximately 50 gross (16 infested) acres were mowed and treated for Canada thistle, tansy ragwort, and other non-palatable weeds in 2021 and 2022. Elk are often seen grazing in these fields and are one of the main species to benefit from these improvements.

**Use of Rocky Mountain Elk Foundation Funds**

This project (**WA210087**) was a continuation and extension of projects previously funded by the Rocky Mountain Elk Foundation. Conifer encroachment and habitat enhancement projects as far back as 2011 occurred on the south zone of the Gifford Pinchot National Forest (GP). These project numbers include:

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|------------------|------------------|
| <b>WA 110067</b> | <b>WA 180029</b> |
| <b>WA 130057</b> | <b>WA 190024</b> |
| <b>WA 160016</b> | <b>WA 200056</b> |

In 2021, noxious weed treatments on the GP were funded by the 2020 project and the USFS. In 2022, the USFS and the National Wild Turkey Federation funded weed control on all sites on the National Forest. RMEF funds from 2021 were used primarily at Pierce National Wildlife Refuge by the Skamania County Noxious Weed Program. A total of \$12,877 were used to control noxious weeds on 143 infested acres.

**Table 1. Overall Project Funding**

<b>Project Type</b>	<b>Size of Treatment Area</b>	<b>Total Cost</b>	<b>RMEF Funds</b>	<b>Matching Funds</b>	<b>Source of Funds</b>
Survey/Monitor	1,695 acres	\$5,000	\$0	\$5,000	USFS/Skamania Co
Noxious Weed Control (2021 Pierce Refuge)	155 gross acres, 88 infested	\$18,829	\$6,464 (#WA210087)	\$9,740 \$2,625	USFWS Skamania County
Noxious Weed Control (2021 Gifford Pinchot NF)	1396 gross acres, 356 infested	\$25,438	\$13,463 (#WA200056)	\$9,500 \$2,475	USFS Skamania County
Noxious Weed Control (2022 Pierce Refuge)	144 gross acres, 55 infested	\$19,214	\$6,413 (#WA210087)	\$10,076 \$2,725	USFWS Skamania County
Noxious Weed Control (2022 Gifford Pinchot NF)	1285 gross acres, 208 infested	\$21,138	\$0	\$9,036 \$4,050 \$8,052	USFS Skamania County NWTF
<b>Total</b>		<b>\$89,619</b>	<b>\$26,340</b>	<b>\$63,279</b>	

**Table 2. Invasives Treatments by Site. Infested acres treated is for two seasons 2021 and 2022**

<b>Site</b>	<b>Acres</b>	<b>County</b>	<b>Land Ownership</b>
Wind River Nursery	293 gross 63 infested treated	Skamania	USFS/County
Cave Creek Meadow	235 gross 258 infested treated	Skamania	USFS
Dice	70 gross 55 infested treated	Skamania	USFS
Puppy	41 gross 37 infested treated	Skamania	USFS
Lost Meadow	126 gross 20 infested treated	Skamania	USFS
Lost Creek Meadow	68 gross 25 infested treated	Skamania	USFS
Skookum Meadow	499 gross 43 infested treated	Skamania	USFS
South Prairie	23 gross 1 infested treated	Skamania	USFS
Frog Pond	16 gross 33 infested treated	Skamania	USFS
Middle Wind	50 gross 29 infested	Skamania	USFS
Pierce Wildlife Refuge	155 gross 143 infested	Skamania	USFWS
<b>Total</b>	<b><u>1,576 gross acres</u></b> <b><u>707 infested acres</u></b> <b><u>treated in 2021-2022</u></b>		

**Project Media Coverage**

There was no media coverage of the 2021-2022 Invasive Weed Management.

**RMEF Publications Information**

See attached photos in a separate document.

**Project Dates**

Treatments occurred between May 1, 2021 – November 9, 2022.

**Treatments/Monitoring Data**

The Skamania County Noxious Weed Program provides valuable feedback about the effectiveness of each year’s treatments. New infestations, treatment data, and monitoring of past treatments on US Forest Service land is recorded by Skamania County Noxious Weed Program in the US Forest Service Invasive Plant (IP) database. Data for the treatments at Pierce National Wildlife Refuge is housed in Skamania County’s GIS database.

## **Project Results Summary**

This project is a continuation and extension of habitat enhancement projects that have been ongoing for over a decade in Skamania County. With help from the Rocky Mountain Elk Foundation, thousands of acres have improved for wildlife forage and habitat across the south zone of the Gifford Pinchot National Forest and now in the Columbia River Gorge. In addition to Rocky Mountain and Roosevelt elk, other species such as black-tailed and mule deer, black bear, priority species like the Oregon spotted frog, western pond turtle, mardon skipper, Suckley cuckoo, Western bumblebees, and pale blue-eyed grass have all benefited from restoration efforts that include noxious weed control and native plant re-establishment. Noxious weeds also degrade fish habitat, choke waterways and affect hydrological services, impede forest regeneration, negatively influence wildfire regimes and severities, and reduce the quality of recreational experiences. This project improved watershed and forest health and resilience while adding valuable forage for wildlife and preserving the aesthetic beauty and economic and recreational uses of the GPNF, the Columbia Gorge National Scenic Area, and Skamania County. Effective noxious weed control and habitat restoration take time, patience, and perseverance in order to deplete seedbanks and allow the land to recover. The Rocky Mountain Elk Foundation is a fundamental partner in this effort and provides the support needed to maintain and improve these vital habitats.