

# Efforts to Eradicate or Combat the Spread of Invasive Species in Washington County, Vermont

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## Introduction

In April 2015, the Senate Committee on Agriculture and the House Agriculture and Forest Products Committee asked Vermont's regional planning commissions to compile reports on the work being completed by organizations in their region to combat invasive species. This report gives an overview of the local, regional and state-wide agencies that work to eradicate or prevent the spread of invasive species in Washington County. At the end of this document is a list of invasive species currently found in or likely to spread to Vermont, with indication of whether the species is currently present or likely to spread to Washington County.

Physically, the County is transected by several north-south running mountain chains (e.g. Green Mountains, Northfield Range, Worcester Range, Irish Hills, Woodbury Mountains, and Groton Range) separated by fertile river valleys. The valley of the Winooski River is the exception to this pattern cutting across the mountains as it flows west to Lake Champlain. A number of groups work in the County to attempt to eliminate or prevent the spread of invasive species. The three activities commonly undertaken by groups combating invasive species are attempting eradication of invasives on specific sites, prevention of the spread of invasive species through education and enforcement, and policy advocacy at the state level. Larger, well-funded organizations at the regional or state level may undertake all three, while smaller organizations tend to focus on one or two. CVRPC contacted 23 organizations to ask about their role in eradicating or preventing the spread of invasive species in Washington County. Eight of those 23 organizations responded to the survey and their responses are organized below.

## Organizations who Participated and their Invasive Species Focus

Of the eight responses, seven of them focus solely on the mitigation or elimination of terrestrial invasive species. **Vermont Department Forests, Parks & Recreation Barre District** manages approximately 90,000 acres in Central VT (Lamoille, Orange & Washington Counties). They are involved with all aspects of land management and help to mitigate the spread and effect of the invasive plants. The plants they deal with most often are buckthorn, honeysuckle, Japanese barberry, Japanese knotweed, and phragmites, with some areas of bittersweet. Many of these species are in small populations and the Department is working to eradicate them from the sites. However, in southeast Orange County, buckthorn is throughout the forests. Here they treat before a timber sale to get desired tree regeneration, but know the buckthorn will be back because it is in the surrounding properties. Forest pests are also a great concern, particularly the emerald ash borer beetle which will have a significant impact if it is discovered in VT. All Department staff will be involved in the efforts to mitigate this pest.

The **Northern Stewards** works in Central Vermont to help with the mitigation or elimination of invasive plants; honeysuckle, buckthorn, phragmites.

The **Cross Vermont Trail Association** is active in Washington, Caledonia, Orange and Chittenden Counties mitigating or eliminating invasive species on conserved land along trail corridors. The

invasive plants CVT manages the most include: honeysuckle, knotweed, barberry and poison ivy.

The **MadDog Chapter of Trout Unlimited** is active in the Mad and Dog River watersheds and Upper Winooski from Bolton Falls to the headwaters in Cabot, VT. They are involved in the mitigation of knotweed along riparian areas. Knotweed makes for poor riparian structure and affects the river habitat for cold water fish, such as trout.

The **Friends of the Winooski River** is active in the Winooski River watershed. Invasive species mitigation or elimination is not their primary focus, but they have done some knotweed and honeysuckle control. Japanese knotweed is their biggest concern as this plant spreads along stream banks where it forms dense stands, crowds out other species, and destabilizes stream banks.

The **Winooski Natural Resources Conservation District** is active in Chittenden, Washington and parts of Orange Counties. WNRCD practices elimination of invasive species during and after riparian stream corridor plantings. They also, through social media, educate the public on forms of invasive species, how to remove, and prevent the spread of. Knotweed should be ranked as a high concern. Others that are of concern are giant hogweed and honeysuckle. All forms have an impact on terrestrial areas, but can also impact water quality. Any invasive species has the potential to impact the economy and the ecosystem.

The **Vermont Land Trust** is active across Vermont and is involved with invasive species mitigation or elimination through the education of their 1,700+ owners of conserved land, members, and the general public. They have partnered with The Nature Conservancy of VT and VT Forest Parks and Recreation on a number of grant projects related to invasive plants. They offered free hemlock wooly adelgid surveys to owners of conserved land in Windham County a few years back. They do periodic publications related to invasive plants and insects. The King Farm in Woodstock is a fee-owned parcel that we enrolled in The Nature Conservancy's Wise on Weeds program.

The **Friends of the Mad River** is active in the Mad River watershed - 5 towns (Duxbury, Fayston, Moretown, Waitsfield, and Warren) and is the only respondent who identified an aquatic nuisance. They are involved in the mitigation or elimination of invasive species as related to their mission and geography. Japanese knotweed is their biggest concern. It impacts recreation as it blocks access to the river, floodplain functioning, and phosphorus transport. Also wildlife, both terrestrial and aquatic, is impacted. The Friends are also following the discussion about the algae *Didymo* and its changing status as invasive because they worked to prevent its spread in the past. Another plant of concern includes Giant hogweed.

## Conclusions

Many respondents to our survey noted that Japanese knotweed was the invasive species about which they were most concerned. The management of knotweed is expensive and more

research and coordination related to stopping it from spreading is needed. Additionally its control requires an extended commitment over several years to be successful. Some of the added concerns of Japanese knotweed include the interference with floodplain restoration efforts, riparian plantings, water quality, and river habitat.

Other invasive species also of concern in Washington County based on the survey include honeysuckle, buckthorn, phragmites, bittersweet, Japanese barberry, Didymo, and emerald ash borer beetle.

## Contact Information of Respondents

<b>Organization</b>	<b>Contact</b>	<b>Email</b>	<b>Phone Number</b>
Vermont Department Forests, Parks & Recreation Barre District	Diana Frederick	diana.frederick@vermont.gov	802-476-0174
Northern Stewards	Allan Thompson	aonthompson@gmail.com	802-244-8131
Friends of the Mad River	Corrie Miller	friends@madriver.com	802-496-9127
Winooski Natural Resources Conservation District	Corrina Parnapy	corrina@winooskinrcd.org	802-828-4493 x110
Cross Vermont Trail Association	Greg Western	greg@crossvermont.org	802-498-0079
MadDog Chapter of Trout Unlimited	Dod Coffey	coffeyclub@yahoo.com	802-223-5644
Friends of the Winooski River	Shawn White	shawnw1022@gmail.com	802-223-4199
Vermont Land Trust	Pieter van Loon	Pieter@vlt.org	802 246-1502