Fayston Knotweed Pilot Project Report

October 24, 2023

By Andrea Henderson on Behalf of the Fayston Conservation Commission

In April 2022, the Fayston Conservation Commission requested ARPA funding of $5,000 to support a more concerted and collaborative effort to manage the increasing infestation of Japanese Knotweed in Fayston. The Selectboard approved and allocated the requested funds for the Fayston Knotweed Pilot Project in September of 2022.

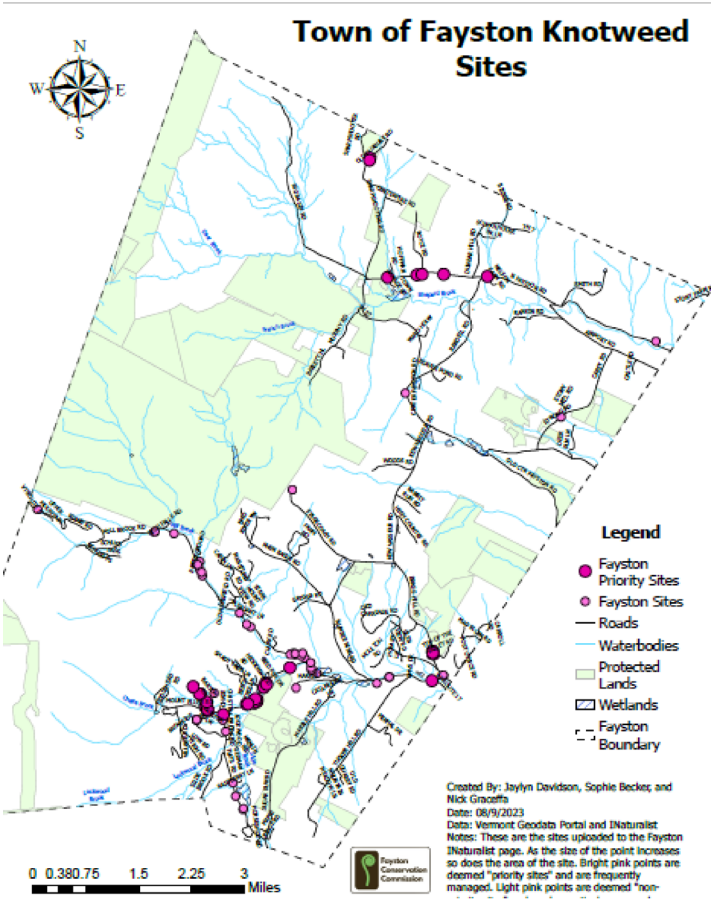
We collaborated throughout the year with the Waitsfield and Warren Conservation Commissions, planning, checking-in, and debriefing at the end of the season. This month, the three Commissions met to begin planning for 2024.

Outreach

Our community education and volunteer recruitment efforts began at the inaugural Green Valley Rally held on Green-Up Day on the first Saturday of May. On that day alone, over a dozen Fayston residents signed up to learn more about Japanese Knotweed. Over the course of the summer, together with our UVM interns (more about that program below), we held three community outreach days at the Waitsfield Farmers Market, and connected with both residents and visitors, adding to our community volunteer group. Our interns also managed our MRV Knotweed Instagram and Tik Tok accounts, posting regular updates about our progress, Knotweed management information, and outreach events.

Surveying

After Green-Up Day, we surveyed Fayston's road and waterways, documenting Knotweed infestations utilizing iNaturalist. Knotweed was found throughout Fayston, concentrated along roadways, particularly around culverts, Mill Brook, and several locations along Chase Brook. Infestations in the headwaters and at higher elevations were identified as priority sites for the 2022 season, and a map was produced identifying the locations of the Knotweed infestations in Fayston.



UVM Partnership, Community educational opportunities, and Knotweed eradication

Together with Waitsfield and Warren we were able to hire eight UVM interns, including two perennial interns. Ashley Cray, one of the perennial interns served in as the project coordinator and met regularly with the three Conservation Commission Knotweed project leads to strategize and share feedback. The interns and community volunteers fed off each others' enthusiasm, and really enjoyed their time working together.

The interns' first day in Fayston began at Chase Brook Town Forest on June 7th. We focused that day on the significant infestation around the culvert just south of Mt Ellen Road. The interns finished the day at Chase Brook with an education session for half a dozen community volunteers, and pulled all of the

Knotweed found around the parking area, trailhead and bridge. In early June, we agreed upon a methodology for the three towns and surveyed multiple nine square foot plots, documenting the number of Knotweed stems, average stem diameter, percentage of Knotweed of the total biomass, and other plant species present at the site.

On June 20th the three Conservation Commissions, interns and community volunteers had an opportunity to learn from Brian Colleran, an invasive species ecologist who studied the spread of Japanese Knotweed in Vermont following Hurricane Irene. Brian shared with us how Knotweed spreads, the impact it has on local ecosystems and water quality, and the benefits of various management strategies.

Over the course of the next four intern and community volunteer workdays in Fayston, we cut and pulled Knotweed along N. Fayston Road, Bragg Hill Road, German Flats, Mt Ellen Road, Barton Road, and at the town gravel pit dumping area. Each time we returned to a site, the Knotweed was diminished, and easier to cut or pull, having had to regenerate and utilize stored energy to do so.

In addition to the eight interns, we had over a dozen community volunteers working with us over the course of the summer. Our volunteers ranged from teenagers to seniors, and all brought their energy and commitment to managing invasive species on their own and on town properties. In total, we logged almost 200 volunteer hours this summer.

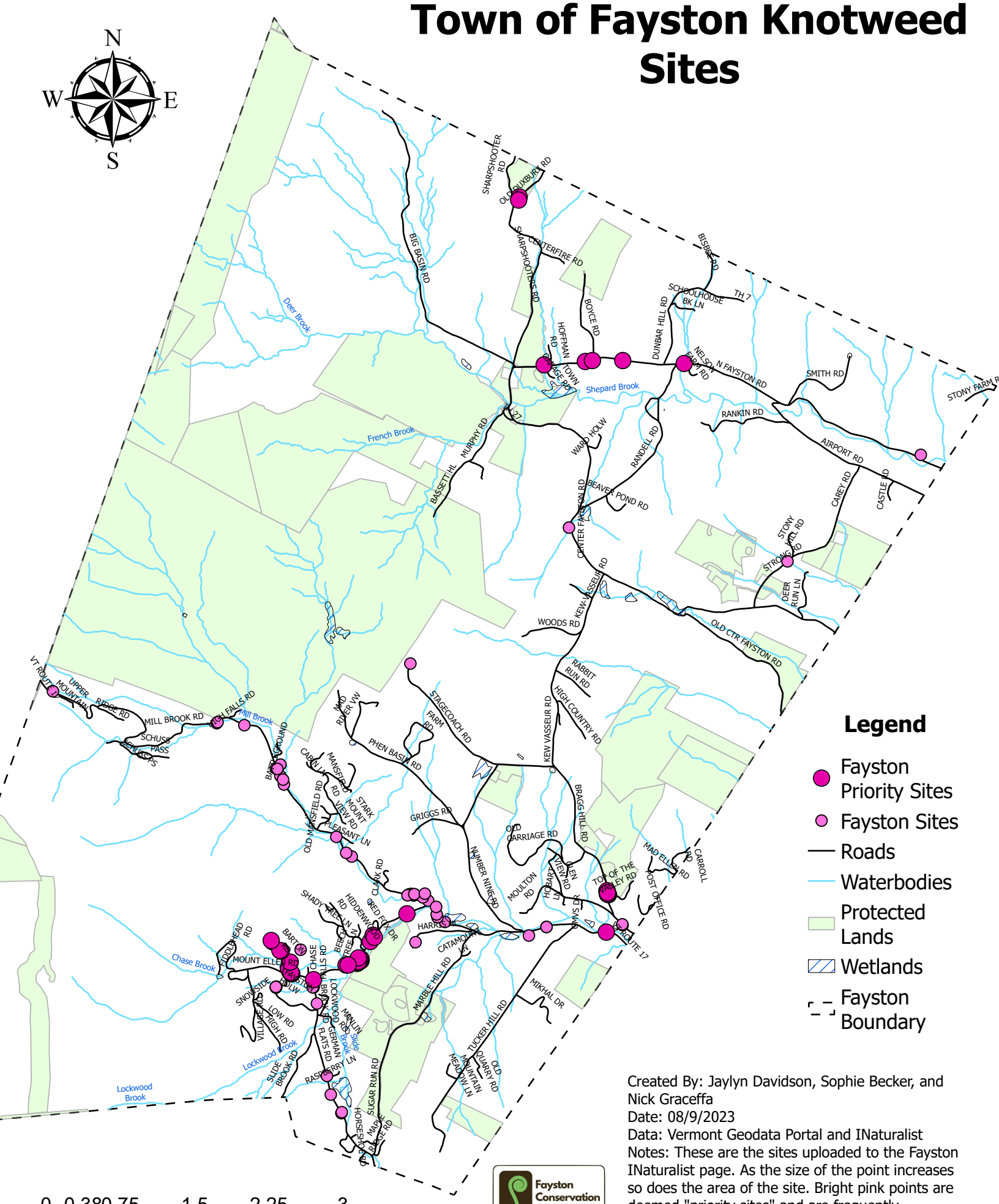
Our collaboration with Waitsfield and Warren has enabled us to benefit from their experience and connections with UVM Rubenstein School of Environment and Natural Resources, and professionals with invasive species expertise. Waitsfield has seen an overall 50% reduction in the amount of time required to manage sites in year two, allowing them to take on additional Knotweed infestations in 2023.

Management of Lincoln Gap used to take a full workday of five people every four weeks a few years ago, and this summer was cleared of Knotweed in 3-4 work hours from top to bottom.

The collaboration of the three towns led to a grant application with Lake Champlain Basin Program, entitled *Invasive Species Management and Ecosystem Restoration in the Mad River Valley*. In summary, the project's goal is to accelerate the development and implementation of a scientifically-grounded approach to invasive species management (with a concentration on Itadori knotweed) AND ecosystem restoration in the Mad River Valley in a manner that features significant community engagement and collaboration with the tri-town Conservation Commissions, Friends of the Mad River, University of Vermont, and other partners. Fayston's Knotweed Pilot Project, local funding, and volunteer engagement can be used to support grant proposals that could bring in outside funding.

It is possible to stop the spread of Japanese Knotweed. It is possible to attract volunteers to work on town properties and inspire them to work on their own properties. It is important to maintain the scenic beauty of Fayston, protect native species from being overrun by invasive species, and provide healthier habitat, as well as food for all the native species that live in Fayston. Management of Knotweed is also important for preservation of Fayston's existing road infrastructure. We hope to build on this year's efforts and continue to mitigate the spread of Knotweed in Fayston.

Town of Fayston Knotweed Sites



Created By: Jaylyn Davidson, Sophie Becker, and Nick Graceffa
Date: 08/9/2023
Data: Vermont Geodata Portal and INaturalist
Notes: These are the sites uploaded to the Fayston INaturalist page. As the size of the point increases so does the area of the site. Bright pink points are deemed "priority sites" and are frequently managed. Light pink points are deemed "non-priority sites" and are less actively managed