2021 Knotweed Project Summary

Warren Conservation Commission

In this year, still with Covid 19 concerns, we were able to have a very productive summer battling knotweed infestations in Warren. With the help of 5 interns from UVM Rubinstein School we were empowered to take on new sites and expand our efforts. In addition to the intern team, many citizens of Warren came to our workshop and workday and worked their neighborhood plots controlling knotweed.

Engagement of the local folks is imperative if we are going to beat back knotweed. Each person taking responsibility for an infestation on their property or near their homes can make a dramatic improvement to our collective environment. The big news is that our message – that knotweed is controllable and can be eliminated with repeated sessions – is being heard and getting folks out there. This is a fundamental change in our collective understanding of the plant, that is replacing the previous fear and trepidation that essentially throttled any action. Knotweed had won.

**Site Summaries**

Road Sides: A main goal of the Commission is to attack knotweed infestation initially in the upper reaches of the watershed to eliminate it’s spread. Knotweed goes up the hills in gravel trucks and comes down in our waterways. In 2021 with the bigger crew we were able to tackle additional sites as well as continue control on sites from previous years.

The typical progression of site work is on the initial year, the plants are vigorous and well established, so it takes more effort the first one or two site visits. Subsequent site visits – every 3 to 4 weeks – are much quicker and involve just removal of small shoots. With each subsequent visit there is a reduction of the number of shoots. For example on Lincoln Gap, the initial pass identified and cleaned about 12 sites and took a team of 5 about 6 hours. After the 3rd pass this summer, it took about 2 hours by a couple of people. The longer the knotweed has been growing, the larger root-stock mass and the longer it will take to totally eliminate the infestation. When we get to the site in the first year, we usually can eliminate the infestation that year, but many sites along our roadways have been there for years, so they will take a years to eliminate, however with each session the work load decreases, as the plant’s vitality decreases.

Lincoln Gap Road

 New area of attack in 2021. Knotweed sites were a result of work done in 2019 to repave the road. Gravel containing knotweed was used in the roadbed and fill around culverts. Being relatively new sites it will be interesting to see how long it takes to eradicate the knotweed. Infestations were on both sides of the road. Working along this road with traffic require attention and safety awareness.

Roxbury Gap

 Work on Roxbury Gap was begun in 2019, our first year of manual eradication work. 33 sites have been identified and worked. By the end of 2021 work 20 sites have been eradicated, 9 are very weak with only a few of shoots returning, and 4 sites remain vigorous but diminshed. It is likely that the remaining sites have a significant amount of buried knotweed roots, that remain healthy due to the size of the roots that were buried. Pieces of knotweed root as big as your arm have been excavated, when were nearer to the surface, but if buried deep will take years to starve the root.

Common Road or East Warren Road

There are only two sites from the Waitsfield line to the corner with Roxbury Gap road. One large site, across from the entrance to Ridge View Rd, has gotten attention for the last three years. It was very vigorous when first attacked. Full sun, plenty of water, good drainage and great soils make this site very vigorous. Interesting to note that on the other side of the fence, where Defreest has cows there is NO knotweed. It is only between the fence and the road. The size of the patch has significantly reduced and native plants are now thriving, but it will continue to need attention.

The second site is on the property of Pam and Adam Rappaport they have been going after it. We helped in 2019 to clear a significant portion just south of their house, but they now are on it.

Plunkton Road

 From the corner with Brook road to Blueberry lake entrance there were 8 sites, 5 of which have been eradicated. Two sites still have a few small shoots but are weak. One site is a result of a knotweed contaminated mound type leach field which borders the road on the Begin property. The homeowner needs to take responsibility for this site. WCC will contact them and offer advise and assistance.

 From the northern entrance to Blueberry Lake around to the south entrance there are 10 sites. Two are very large and vigorous, 4 are medium and 4 are small.

The two largest sites have been hit hard in 2021. The one at the northern entrance to Blueberry Lake has been significantly impacted by work over the last three years. It is a signature site where our repeated efforts have restored native vegetation and demonstrates the effects of our efforts.

 Further south on Plunkton there are three more sites. The folks from Colton’s camp have chipped into the help with two sites near their camp.

Fuller Hill Road

 Fuller hill was worked only once in August after the ditches had been cleaned and new rock lining installed by Town. The ditching did a tremendous job of removing a significant knotweed biomass. There are still 4 or 5 sites where knotweed returned and they will need future attention.

Brook Road

 The Brook Road has two sites on the Freeman Brook site in riprap, which makes them very difficult to eradicate because the roots are buried so deeply. Both sites have benefited substantially from eradication efforts and have seriously shrunk in size and vigor. Clean up efforts now takes less than 15 minutes per site.

 The last two houses on Brook Road as you leave town have knotweed on the stream bank. In 2020 we began work there and trained the owners on our technique. They have now taken over the eradication efforts.

Downtown Warren

School Road

 There is one site across from the Town maintenance shed that has been worked on for the last two years. Currently the site is clean enough to be mowed with some manual effort just on the edges. The back edge is boggy land where knotweed can’t make it. Knotweed does not grow under water.

 There is a large difficult site right behind the School garbage bin and going down the steep embankment. This was not tackled yet. It is a bit tricky with very steep riprap fill.

Downtown Warren

 A small infestation in the Warren Store flowerbed next to the brook has been identified and attacked for the last two years. Owners have been alerted. In 2021 we took on a very extensive infestation at the south-east side of the covered bridge next to Jack Mosley’s house. He has eradicated knotweed along the Mad River but this site was too steep and too dense for him to tackle. It will continue to need attention as it’s a vigorous, sunny wet site with excellent soil.

 A small infestation was hit once in 2021 at the culvert entrance at the corner of Cover Bridge Road and Hazel Brown Rd.

 Homeowners on Hazel Brown Rd have been actively cleaning up knotweed on their properties and the met with the Knotweed crew to discuss techniques and strategy. We would like to work with local folks more in the future. It is important that they become involved if we are ever to gain the upper hand on knotweed.

Prickly Mountain Road

 There are two sites on the upper Prickly mountain road that have been attended to by neighbor, Nancy Bryant. The sites have almost all been eradicated but the knotweed is planted deep around a culvert so these are long-term sites.

Airport Road

 Roadwork by the Town was ongoing in 2021. There is one large infestation near the bottom of the road where a road was scraped in years ago and contaminated fill added. Knotweed is on both sides of the road with a more substantial area on the north side. It was not treated in 2021. The Town’s work in the road ditches has been helpful.

Quayle Bend Conservation Area

 There was a focus on this area because it was on the river and represented a different type of site. This was our third year and we substantially expanded our work zone going quite a bit further south on the property and all the way down to the riverbed. The initial areas we worked for 3 years now are about gone, with only a lonely shoot or two showing up now. The newer areas have been cleaned of big stalks, than brush hogged and mowed. We plan to continue to mow as much of the site as we can, and manually clean the rougher, steeper edges and river bank. It is gratifying to see the native vegetation returning with vigor as the knotweed is removed.

Wabanacki Park Test Sites

 There are a number of experiments and demonstration sites located in this parcel. These sites are meant as educational opportunities for the general public and have signs explaining the control programs. There are the following sites

* smothering test site
* mowing test site
* wire mesh test site

Within the knotweed dump area we have found two plants that seem to tolerate or compete well with the knotweed. We are watching these plants to see how they fare over time. It would be exciting to identify native plants that can out compete knotweed.

Town Gravel Pit

 The gravel pit has received attention for the last three years and as a result there have been a number of knotweed sites eliminated inside the work area. There are still sites on the edges but no effecting material in the work area.

 There were large loads of seriously contaminated gravel that came from the Volkstown road ditches that were placed on the edge of the pit. We would like to smother this pile as a method of clean up. The project did not get started in 2021. If definitely needs to be treated.

**Future plans**

For 2022, assuming a similar level of funding and some additional grants, we would like to add an additional area to our current list.

Upper Mad River

The upper most Mad River in the Granville Gulf has about 12-14 small infestations along the road and in the river. It would fantastic to get this cleaned up before it can contaminate the upper Mad. From the Granville line to the Town of Warren, the Mad River has very few sites. Once the river flows past the Bobbin Mill, more and more knotweed sites start. By the time the Mad is ½ mile north of Warren, both sides of the river are densely infected. Keeping the upper Mad clean should be a major priority.

Currently many of the brooks in Warren like Freeman Brook, Lincoln Gap creek and the Mill creek are essentially knotweed free, with the exception of a few sites that are actively being worked.

In 2022 besides getting an intern crew for the summer, we will need to hire a project leader. This has been a position Jito has filled but as the work load has increased to 2 to 3 days a week it is no longer sustainable as a volunteer position.

Jito can continue to ‘manage’ and ‘direct’ the work.