



## **Austin Parcel Intensive Invasive Management Plan, Annual Impact Report 2020**

### **Partners:**

Waitsfield Conservation Commission, Vermont Master Naturalist Program, Intervale Center, Friends of the Mad River, and Mad River Path



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**Dates stewarded 2020:** July 24, August 20, September 13

**Zones stewarded:** Zone 1, Roadside trail & Mill Brook; Zone 2, Reed canary grass; Zone 4, Mow/trail zone

## **Review of 2020 Invasive Management Season at the Austin Parcel**

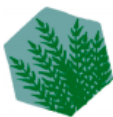


**Luke Foley, Vermont Master Naturalist participant, demonstrates stewarding techniques during September 2020 workday.**

Since 2018, the Austin Parcel in Waitsfield, Vermont has been a model for invasive species removal, native enhancement plantings, and community engagement in floodplain forest restoration. These efforts have been supported and administered by the Town of Waitsfield Conservation Commission (the Commission), in partnership with the Intervale Conservation Nursery (ICN), Friends of the Mad River (FMR), the Mad River Path Association (Path Association), and a new partner in 2020, the Vermont Master Naturalist Program (VMN). This third Annual Impact Report of the project provides a comprehensive look into successes and challenges at the Parcel and provides recommendations for further stewardship success.

The project team from VMN had three stewardship days in 2020, including one workday that involved all 2020 Mad River VMN participants. Additional community days were not pursued in 2020 due to the COVID-19 pandemic. The total amount of volunteer labor hours on-site for VMN was 75 hours. In addition, the Path Association maintained the Parcel path and mowed interior patches of Japanese knotweed.

Native plant enhancements continue to be a key element of success at this site, as was also noted in 2019. Japanese knotweed piles continue to decrease in surface area as a result of invasive removal efforts since 2018, expanding the planting areas for native species as well as the opportunity for natural regeneration to occur. VMN participants spent 20 hours stewarding





past year's plantings; at least 90% survival vigor was observed for the previous years' plantings that were identified. An additional 72 trees and shrubs were planted in 2020 at the Austin Parcel (see Table 1) .

## **Stewardship**

The main focus of stewarding in 2020 was on-going woody invasive removal and monitoring, monitoring prior years' plantings, and native plant enhancements. Three primary invasive



species: Honeysuckle, European buckthorn, and Japanese knotweed, continue to prove to be the greatest competition to the native woody perennials at the Austin Parcel. During 2018 and 2019 extensive efforts and progress were made by ICN and other partners in the control of “mother” plants and “mother” stump removal of honeysuckle and European buckthorn as well as manual removal of Japanese knotweed.

Continuing woody invasive removal efforts were made in 2020; woody invasive removal was primarily focused along the Zone 1 roadside trail (about 100 ft length of trail) to remove fruiting branches and remaining stumps. Japanese knotweed was manually removed by VMN participants, particularly focusing in areas where the knotweed presence was isolated and at risk for further spreading. The Mad River Path provided extensive continued knotweed maintenance in the form of mowing and weed whacking. Continued annual efforts to manually

remove invasive species is observed to be decreasing the pressure of these invasives, allowing for more area for native plantings and high vigor of previous years' plantings.

Stewarding native plants and prior years' plantings in 2020 primarily in Zone 2, the Reed canary grass zone, entailed the removal of bindweed, bedstraw and grasses to provide space for growth. Additionally, all previously installed plant protection was checked and fixed as needed. Repeated stewarding of plantings has been recommended in previous annual reports of the site and is encouraged for site optimization. Previous years' plantings were observed to be thriving with less than 10% mortality.

Resuming the theme of the last two seasons' efforts, planting site locations and species selection were accomplished with the intention of replacing invasive plants and providing



disturbed areas a headstart at outcompeting future invasive sprouts. Species selection for plantings was determined by the existing ecosystem as well as previous years' plantings and the observed vigor of previous plantings. Consultation was provided on species selection by Katie Kain of U.S. Fish and Wildlife Service and Mandy St. Hilaire of Intervale Center. Table 1 has information on species and quantities planted at the Austin Parcel. In 2020, these plants were purchased from ICN with funding from Waitsfield Conversation Commission. Container plants were used in 2020; bare root stock was not available in the timeframe of the planting workdays. Areas with the most disruption, as suggested in the 2019 Austin Parcel report, were identified as high priority for native plant enhancements. These areas were characterized by loose soil, sunny exposure, and low to moderate invasive pressure.

### **Path Association Stewardship**

The Mad River Path spent 39 hours conducting knotweed maintenance at the Austin Parcel in 2020. This was done by the Path Association's trails manager, David Hodgson. Activities included cutting back new growth, removing debris, managing the compost pile under the tarps ("knotweed burrito"), and cutting vegetation around the new native trees to support their health.

### **Community Engagement & Testimonials**

Since the initial stewardship of the Austin Parcel in 2018, there has been high community feedback and visibility in terms of management strategies and collaboration efforts amongst numerous partners. Community input strongly factored into the manual invasive removal strategy during the initial planning stages due to vocalized opposition of glyphosate spraying as an invasive management strategy. In 2019 several Community Stewarding Days were held at the Parcel. These workdays had lower than anticipated attendance; however, they were noted for their success in creating a platform for continued stewardship and for community education.

Efforts at the parcel in 2020 were intentionally limited in attendance to participants from the partner organizations due to the constraints posed by the COVID-19 pandemic. The participants of the Mad River Vermont Master Naturalist course conducted a field day in September. Following the work day, the coordinators and participants received an array of positive community feedback; some of this feedback occurred by passersby during the work day. People were generally curious of the activities underway, opportunities for future engagement, and were very vocal in their support and gratitude for the community efforts at the site.

Testimonials:

*"I think one of the most empowering things about the project is that now each community member that attended the workday has personal ownership in the future of the site. And these participants will share their knowledge with their family and their friends. It is a powerful example of spreading knowledge and caring through stewardship."* - VMN participant

Several other participants in the workday supported this notion as they reflected that they had



been back to the site, both solo and with others, at least once in the month following the planting to check on the progress of their plantings and stewardship efforts.

*“After our community planting day, I went to the site with my mother and my daughter to share with them what we had done. Due to the drought conditions, my mother insisted on watering each of our recent plantings individually with her water bottle.” - VMN participant*

### **Looking forward: What next? - Reflections on recommendations from 2019**

#### **Japanese Knotweed - Keeping it at Bay**

In 2019, it was recommended that the Path Association continue to invest 50-70 hours per year in the maintenance of Zone 2. This Path Association dedicated 39 hours of regular weed whacking, mowing, and composting of knotweed in Zone 2 in 2020. These efforts show on-going success in keeping Japanese knotweed at bay. Compost piles continue to demonstrate effectiveness in decomposing stalks of Japanese knotweed. Areas recently exposed following the decomposition of knotweed compost piles were optimal disturbance sites for native species plantings in 2020.

#### **Woody Invasives - Continuing Past Efforts**

Less labor hours were invested in woody invasive removal in 2020 than the 50-75 hours per year as recommended in the 2019 report. Woody invasive removal efforts in 2020 focused along approximately the first 100 ft of the Zone 1 roadside trail (closest to Zone 2). The efforts undertaken in 2020 followed the 2019 report's recommended removal processes with the exception of utilizing a pulley for stump removal.

The wooded edges of Zone 1 and the wetland/beaver corridor continue to be high priority for manual removal of woody invasives, primarily honeysuckle and buckthorn. It is recommended that future year's efforts should more intensively focus on woody invasive removal coupled with native plant enhancements in Zone 1.

#### **Floodplain Forest Establishment - Year 3**

An inventory of previous plantings that was conducted during early 2020 summer observed high vigor in the plantings in Zone 2 (416 native plantings reported in 2018 & 2019) and Zone 1 (188 native plantings reported in 2018 & 2019). Planting areas for 2020 focused on areas that were recently disturbed following on-going knotweed and woody invasive removal pressure; these areas were located along the perimeter of Zone 2 (49 native plantings in 2020) as well the first 100 ft of the Zone 1 roadside trail (23 native plantings in 2020). This was the first season with plantings along Mill Brook and near Route 100 across from Eagles Road (see Map 2). Following the 2020 planting date, the region experienced drought-like conditions causing stress to the new plantings.



The success of previous years' plantings, as well as the increasing planting opportunities caused by on-going invasive removal, supports the 2019 report's recommendations. These recommendations included continued stewarding of the native plants at minimum twice a year, once in Spring and once in late Summer. Additionally, the 2019 report suggests to support and achieve the target planting density (250-400 plants per acre as recommended by NRCS), on-going annual efforts should be made to inventory the living and dead plants and to plant native trees and shrubs to replace mortalities.

### **Community Engagement**

On-going maintenance efforts at the site, as outlined above, will be essential to the continued success of invasive control and floodplain forest restoration. This year the parcel efforts found success by developing a new partnership with the Vermont Master Naturalist - Mad River program. Engaging community members at the site can come through many avenues; those that have been successful to-date in fostering participation include community steward days demonstrated in 2019 and working with like-minded organizations such as VMN in 2020. Future opportunities for engagement should consider these routes, as well as other opportunities for education and community engagement such as self-guided signage at the site and additional site updates and educational briefings through community-wide publications and news outlets such as *The Valley Reporter*, VPR, and/or WMRW (Warren Radio).

### **Acknowledgements**

VMN participants would like to thank the Waitsfield Conservation Commission and Intervale Center, Friends of the Mad River, Mad River Path, Vermont Master Naturalist Program for their on-going interest and investment in stewarding the Parcel.

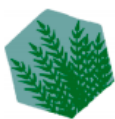
2020 was a year that saw a notable increase in the use of outdoor recreation areas throughout the state of Vermont. Michael Snyder, the VT State Commissioner of Forests, Parks and Recreation, speculated in October 2020 that, "on the low end, some areas are seeing a moderate increase in use of about 10-15%, while the increase in other areas is "significant" at about 50-60% more traffic than usual." In continuing to steward the Parcel, the town of Waitsfield is investing in the recreational activities the site has to offer as well as the invaluable habitat and ecosystem services the site provides the greater landscape. We are grateful and proud to be a part of the continuing efforts at Austin Parcel.



**Table 1 - NATIVE SPECIES PLANTED 2018-2020 BY TYPE AND QUANTITY.**

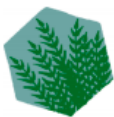
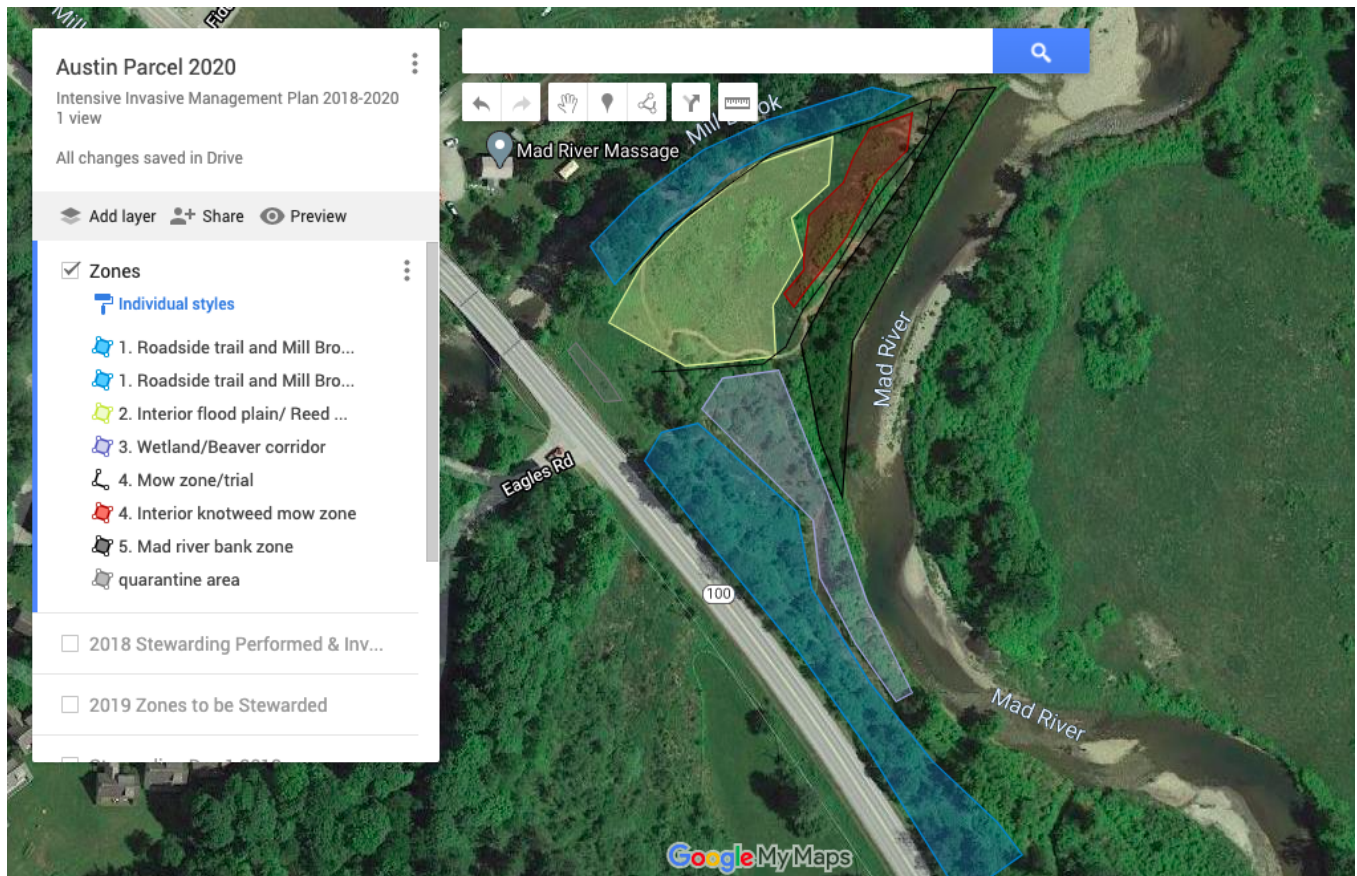
Common Name	Latin Name	2018	2019	2020	TOTAL
American elm - DT	<i>Ulmus americana 'Disease Tolerant'</i>			2	2
Balsam fir	<i>Abies balsamera</i>			2	2
Balsam poplar	<i>Populus balsamifera</i>		19	4	23
Basswood	<i>Tilia americana</i>		7		7
Black cherry	<i>Prunus serotina</i>		4		4
Black willow	<i>Salix nigra</i>		20		20
Box elder	<i>Acer negundo</i>	45	49	2	96
Buttonbush	<i>Cephalanthus occidentalis</i>			6	6
Chokecherry	<i>Prunus virginiana</i>	15	17	5	37
Cottonwood	<i>Populus deltoides</i>		20	3	23
Elderberry	<i>Sambucus canadensis</i>		2	7	9
Grey birch	<i>Betula populifolia</i>		26		26
Grey dogwood	<i>Cornus racemosa</i>			5	5
Highbush cranberry	<i>Viburnum trilobum</i>		17		17
Paper birch	<i>Betula papyrifera</i>			4	4
Quaking aspen	<i>Populus tremuloides</i>		14	2	16
Red bud	<i>Cercis canadensis</i>			2	2
Red osier dogwood	<i>Cornus sericea</i>	30		6	36
Shrub willow	<i>Salix spp.</i>	30	15	4	49
Silky dogwood	<i>Cornus amomum</i>	15	81	2	98
Speckled alder	<i>Alnus incana</i>	15	14	4	33
Sugar maple	<i>Acer saccharum</i>		1	4	5
Winterberry	<i>Ilex verticillata</i>		2	6	8
Yellow birch	<i>Betula alleghanensis</i>		15	2	17
<b>TOTAL</b>		<b>150</b>	<b>323</b>	<b>72</b>	<b>545</b>

2020 Plants purchased with contribution from Waitsfield Conservation Commission.



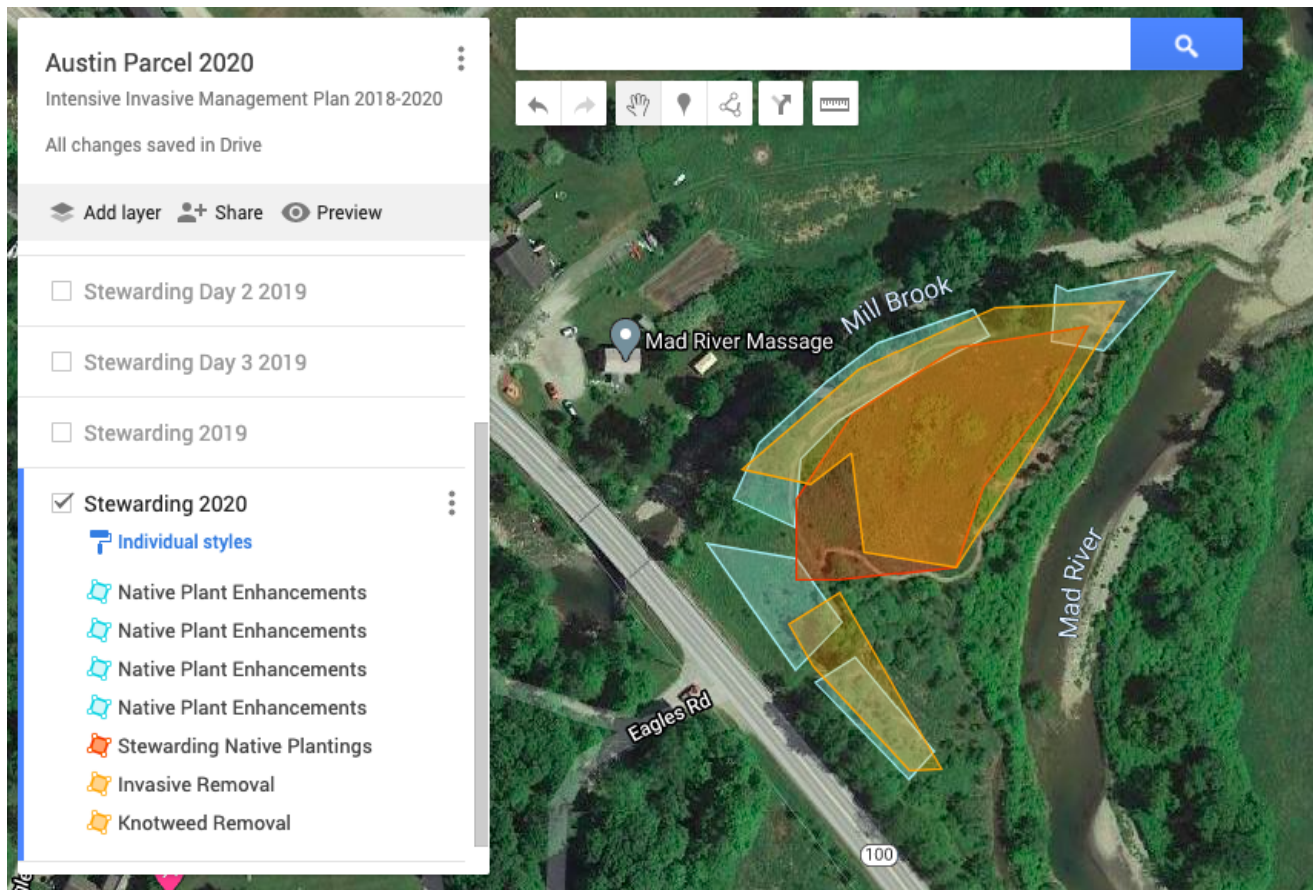


## Map 1. AUSTIN PARCEL INTENSIVE INVASIVE MANAGEMENT ZONES.





## Map 2. AUSTIN PARCEL ZONES STEWARDED 2020.



To see all map layers from project in an interactive online form, type this link into your online browser:

<https://www.google.com/maps/d/edit?mid=1-uzFjWID-bJAMLIe9fT3IM0fL3SisMu5&usp=sharing>

