



Invasive Knotweed Management Project Cluster

What is this project?

Japanese knotweed (*Fallopia japonica*) has colonized the 200-foot riverfront area along the Rumford River in the stretch from Fulton Pond to Willow Street in Mansfield, MA. Knotweed is an invasive, non-native perennial herb that is highly competitive, forming tall, dense stands that crowd out and displace native plant communities.¹ The loss of native plant communities along riparian habitat can lead to a loss of shade and subsequent increase of water temperatures and riverbank erosion, which negatively affects fish and aquatic species.² Compared to native plant species, knotweed is less suitable habitat for many aquatic species, resulting in impacts throughout local food chains.³ According to the Natural Resources Conservation Service, “Japanese knotweed control should take a watershed perspective, from the headwaters downstream, as the primary dispersal mechanism is by water (both seeds and plant fragments). Control of knotweed must be well thought out due to the extensive root system and sprouting ability as well as the site limitations.”⁴

A Town Riverfront Area Management Plan will help coordinate appropriate control and removal strategies and identify opportunities for public education about knotweed. This river stretch also includes two dams and two culverts. The dams—both Town-owned—and culverts should be assessed to identify opportunities to improve local aquatic connectivity and hydrology. Fulton Pond Dam and Cabot’s Pond Dam are High Hazard and Significant Hazard dams, respectively, and the Town has identified a need to monitor and repair vulnerable facilities at each. A holistic management plan—one that considers knotweed removal and dam/culvert upgrades together—will enable Mansfield to better plan for improvements to river flow and habitat quality.

Why is this project important for the environment and for Mansfield?

- **Restoration of habitat.** Removing Japanese knotweed will allow natural vegetation to return to the Rumford River corridor, thereby increasing suitable habitat, halting riverbank degradation, and restoring river flow.
- **Ecological benefits to the region.** Japanese knotweed spreads primarily by water. Eradicating knotweed in upstream stretches of the Rumford River will protect downstream stretches, including the Town’s largest conservation area, the Great Woods Conservation Area.
- **Public recreation benefits.** Enhancement of ecosystem services in and around the restoration site will provide a more natural recreation setting and protect downstream recreation areas from colonization.



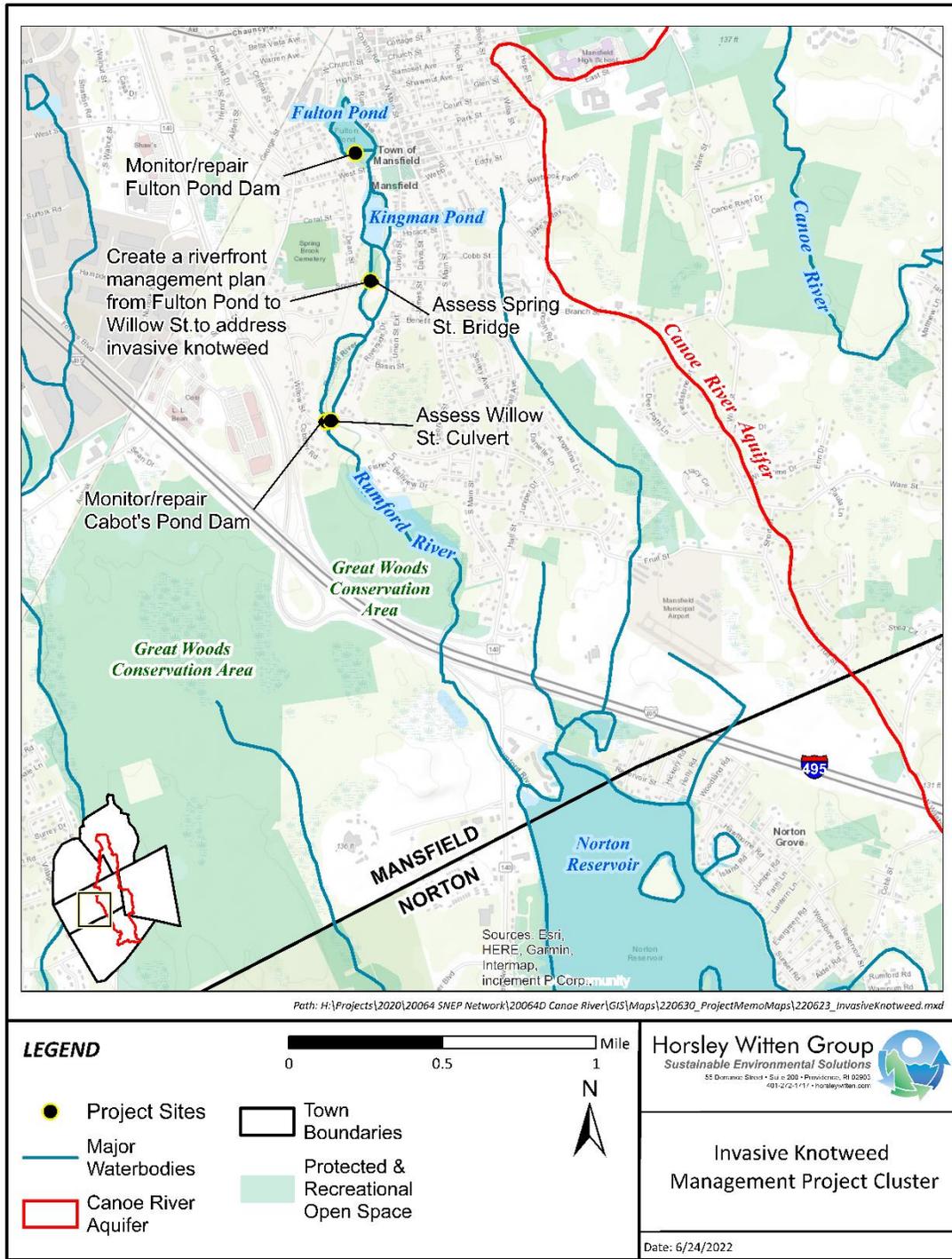
Figure 1. (L) Japanese knotweed colony (R) New Japanese knotweed shoots (Maine Department of Agriculture, Conservation & Forestry)

¹ Grevstad, Fritz S. et al., “Biology and Biological Control of Knotweeds,” United States Department of Agriculture (2020). https://www.fs.fed.us/foresthealth/technology/pdfs/FHTET-2017-03_Biocontrol_Knotweeds.pdf.

² Ibid.

³ Ibid.

⁴ “Pest Management—Invasive Plant Control Japanese Knotweed—*Polygonum cuspidatum*,” Natural Resources Conservation Service (n.d.). https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1081649.pdf.



If you care about this project, what should you do?

If you are interested in supporting efforts to make this project a reality, we encourage you to reach out to the Conservation Commission in Mansfield to voice your support. Let your community know that addressing this project should be a priority for the environment and for Mansfield!

Town of Mansfield Conservation Commission
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