Habitat Management Plan

prepared for

Rustic Ridge Association Northfield, MA

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Winter Address: 3900 Divot Court Longmont, CO 80503

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prepared by

Land Stewardship, Inc. P.O. Box 511 Turners Falls, MA 01376 A patch of Japanese knotweed (*Polygonum cuspidatum*) measuring approximately 3,900 square feet occurs on land in Northfield known as the Rustic Ridge Wetland (Figure 1).

Joan Deely of Land Stewardship, Inc. visited the site on June 27, 2016 to assess site conditions. This isolated patch should be eradicated to prevent it from spreading into the adjacent marsh.

The project site comes under the jurisdiction of the Wetlands Protection Act (WPA). The landowners are responsible for filing either a Request for a Determination of Applicability (RDA) with the Northfield Conservation Commission and with the Massachusetts Department of Environmental Protection (DEP).

This Habitat Management Plan is a support document for the permitting process. We will not conduct formal wetlands delineation of the area, but will include the DEP wetlands overlay on GIS maps that will accompany the plan in anticipation that this will be sufficient for the conservation commission.

Management Methods

For this dense monotypic stand of knotweed we will conduct a foliar spray application using a wetland-approved herbicide mixed with wetland surfactant and drift control agent. This foliar application will be conducted the ultra-low-volume Thinvert application system. For more information on this system, visit http://www.arborchem.com/library/THINVERT_Nov-Dec2014_UAN.pdf.

At no point in the treatment process will any herbicide be applied directly into the jurisdictional resource area.

Standing dead plant material will be cut during the dormant season to facilitate follow-up treatments in 2017 and 2018. Cut plant material will be left on-site to decompose.

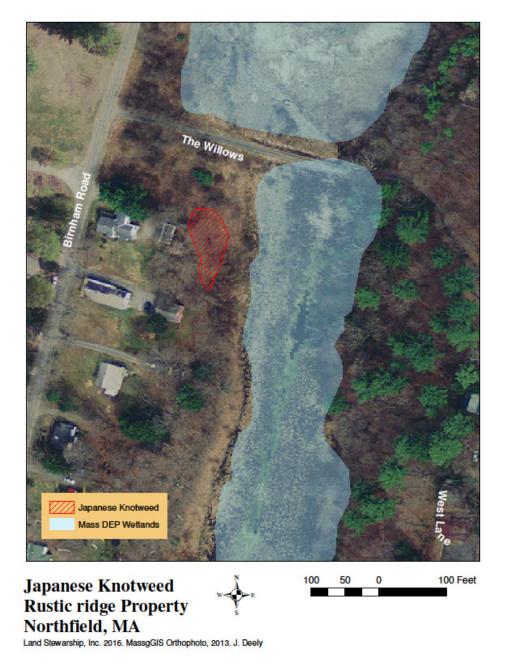


Figure 1. Japanese knotweed, Rustic Ridge Wetland, Northfield, MA

Proposed Services

- > <u>Task 1.</u> Prepare Habitat Management Plan. July 2016. A Habitat Management Plan for inclusion with landowner-submitted wetlands permit application.
- > <u>Task 2</u>. Initial application (Mid-August 2016). Foliar application to Japanese knotweed.

- > <u>Task 3</u>. Cut knotweed (November 2016). Dead standing knotweed will be cut and left on-site.
- Task 4. Follow-up herbicide application (August 2017). Follow-up foliar herbicide application.
- Task 5. Follow-up herbicide application (August 2018)

Success Criteria

Objective: 85% invasive plant control resulting from 2016 series of treatments; 95% resulting from 2017 follow-up work; and 99% resulting from 2018 follow-up work. We will establish several photo monitoring plots prior to management work and will monitor the results of treatments at the completion of the project to make sure the project has been completed to our standards. Our work is guaranteed to meet the stated success criteria.

Long-term Maintenance

Early detection is essential to prevent recurring infestations. It will be necessary to monitor the area carefully, scouting throughout the growing season for resurgent knotweed plants. Invasive plants can find their way back to the property via of wind, birds, and other animals. It is also possible that knotweed will emerge even after three years of active treatment.

Any new knotweed plants can be managed with hand pulling. The proposed project will provide extensive initial invasive plant control. We suggest seeding the area after treatment with either a cover crop (usually an annual grass) or a site-appropriate native seed mix. Any resurgent knotweed plants will require herbicide application, as digging out individual plants leaves bits of rhizome in the soil that will resprout.

Successful long-term maintenance is ultimately the responsibility of the landowners who must continue to actively manage the property and take appropriate preventative management actions.

Quality Assurance and Reporting

Joan Deely will serve as the project manager for your project. We will inspect all crew work to ensure that the treatment was well executed, thorough and effective. We will inform you of our schedule and progress. Our crew leaders and crew foreman use smart phones to submit daily work logs with photos and GPS to demonstrate areas completed. Upon completion of each task, we will prepare a land management record which will summarize work completed each day (crew, weather, hours worked, herbicide used, herbicide amount and notes).