Massachusetts Department of Environmental Protection
Bureau of Water Resources - Wetlands

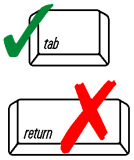
WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Devens
Municipality

A. General Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Applicant:

First Name	Last Name
Friends of Woodlands and Waters	Paula Goodwin

Address: PO Box 27

City/Town	State	Zip Code
Hudson	MA	01749

Phone Number	Email Address
978-264-9586	friendsofaroxgm@gmail.com

2. Property Owner (if different from Applicant):

First Name	Last Name
US Fish and Wildlife Service	Grace Bottitta

Address: 680 Hudson Road

City/Town	State	Zip Code
Sudbury	MA	01776

Phone Number	Email Address (if known)
(508) 848-8619	grace_bottitta@fws.gov

3. Representative (if any)

First Name	Last Name

Company Name

Address

City/Town	State	Zip Code

Phone Number	Email Address (if known)

B. Project Description

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

Street Address	City/Town
50 MacPherson Road	Devens

[How to find Latitude and Longitude](#)

Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)	Longitude (Decimal Degrees Format with 5 digits after decimal e.g. -XX.XXXXX)
42.56642	-71.6073

[and how to convert to decimal degrees](#)

Assessors' Map Number	Assessors' Lot/Parcel Number
	035.0-0399-0500.0

b. Area Description (use additional paper, if necessary):

Approximatley 19 acre area along the Nashua River near the Hunter Parking Lot

c. Plan and/or Map Reference(s): (use additional paper if necessary)

Oxbow National Wildlife Refuge Japanese Knotweed Treatment Supporting Narrative	9/5/25
RDA SAupporting Maps	9/5/25
Title	Date

B. Project Description (cont.)

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):

In order to address the aggressive invasive speices, Japanese Knotweed, along the Nashua RIver that is overtaking the native vegetation and threatening to destabilize the river banks, Friends of Woodlands and Waters has secured a grant in partnership with the USFWS/Oxbow National Wilflife Refuge to treat Japanese Knotweed with herbicides and once controled, will intend to plant natives to restore and stabilize the banks. In September 2025 - Spray and/or wipe leaves with herbicide. Follow-up treatments will be required and the specifics of these will depend on the state of the knotweed at the time, and how effective previous treatments were. Annual reports will be compiled to report status of the site and effectiveness of treatments.

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

As a invasive sepcies control and restoration project this is a limited project and will not disturb the soil, but selectively treat target invasive plants.

3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.

- ☐ Single family house on a lot recorded on or before 8/1/96
- ☐ Single family house on a lot recorded after 8/1/96
- ☐ Expansion of an existing structure on a lot recorded after 8/1/96
- ☐ Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
- ☐ New agriculture or aquaculture project
- ☐ Public project where funds were appropriated prior to 8/7/96
- ☐ Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
- ☐ Residential subdivision; institutional, industrial, or commercial project
- ☐ Municipal project
- ☐ District, county, state, or federal government project
- ☐ Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.

b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)

C. Determinations

1. I request the Devens Enterprise Comm. make the following determination(s). Check any that apply:
Conservation Commission

☐ a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.

☐ b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.

☒ c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.

☒ d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance** or **bylaw** of:

Devens
Name of Municipality

☐ e. whether the following **scope of alternatives** is adequate for Activities in the Riverfront Area as depicted on referenced plan(s).

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Paula Goodwin
Signature of Applicant

September 5, 2025
Date

Signature of Representative (if any)

Date

September 5, 2025

Devens Enterprise Commission
Devens Regional Enterprise Zone
33 Andrews Pkwy
Devens, MA 01434

Reference: **Request for Determination of Applicability**
USFWS Oxbow National Wildlife Refuge
50 MacPherson Road, Devens MA

Attention: **Neil Angus, Director/Land Use Administrator and William P. Marshall, Chairman**

Dear Members of the Commission:

On behalf of the property owner, US Fish and Wildlife Service, the Friends of Woodlands and Waters, as the applicant, is submitting a request for Determination of Applicability for proposed treatment of Japanese Knotweed with herbicide to control this ecologically damaging invasive species and help advance goals to restore the Nashua River bank at the property located at 50 MacPherson Road, Devens, MA. We are happy to have received a Community Grant from the Nashua River Wild and Scenic Stewardship Council to support this restoration work. The property is on the North Post of Devens and within the Oxbow National Wildlife Refuge and the Open Space District. FEMA flood zone areas are located on-site, as well as bank resources of the Nashua River and buffer to BVW. This application is in compliance with the Massachusetts Wetlands Protection Act, Devens Zoning By-laws, and the Devens Enterprise Commission Rules and Regulations and will follow the Level One administrative review process.

In order to supplement this request for a Determination of Applicability, the following materials have been included with this letter as attachments:

- **WPA Form 1 – Request for Determination of Applicability**
- **Devens Regional Enterprise Zone Permit Application Level 1(filed through the OpenGov Portal)**
- **PDF of Project Location**
- **PDF of Project Narrative**

As a nonprofit seeking approval for a restoration project within public open space, we request the DEC fee be waived. We appreciate your consideration of this request for a Determination of Applicability. If you have any questions or comments on this matter, please do not hesitate to contact me at friendsofaroxgm@gmail.com.

Sincerely,

Paula Goodwin

Paula Goodwin

President

FRIENDS of WOODLANDS & WATERS

Friends of Woodlands and Waters is a volunteer 501(c)3 nonprofit organization that supports and protects the Assabet River, Oxbow, and Great Meadows National Wildlife Refuges. The Friends work with the US Fish and Wildlife Service and collaborate with other conservation nonprofits in the locales of each of the Refuges, to meet wildlife and biological management objectives, recreational and educational goals, and help with Refuge enhancement and conservation projects. https://www.woodlandsandwaters.org/

US Fish and Wildlife Service
Eastern Massachusetts NWR Complex
680 Hudson Road, Sudbury, MA 01776
www.fws.gov/refuge/oxbow

September 5, 2025

Devens Enterprise Commission
Devens Regional Enterprise Zone
33 Andrews Pkwy
Devens, MA 01434

Reference: Landowner Support for Request for Determination of Applicability
USFWS Oxbow National Wildlife Refuge
50 MacPherson Road, Devens MA

Attention: Neil Angus, Director/Land Use Administrator and William P. Marshall, Chairman

Dear Members of the Commission:

On behalf of the property owner, US Fish and Wildlife Service, we are pleased to partner with the Friends of Woodlands and Waters, as the applicant, in submitting a request for Determination of Applicability for proposed treatment of Japanese Knotweed with herbicide to control this ecologically damaging invasive species and help advance goals to restore the Nashua River bank at the property located at 50 MacPherson Road, Devens, MA. We are grateful the Friends group partnered with our biological staff to pursue and receive a Community Grant from the Nashua River Wild and Scenic Stewardship Council to support this important restoration work. The property is within the Oxbow National Wildlife Refuge.

If you have any questions or comments on this matter, please do not hesitate to contact me at grace_bottitta@fws.gov.

Sincerely,

Grace Bottitta-Williamson
Project Leader,
Eastern Massachusetts National Wildlife Refuge Complex

Supporting Narrative
Oxbow National Wildlife Refuge Japanese Knotweed Treatment
Request for Determination of Applicability - 50 MacPherson Road, Devens MA
September 5, 2025

Summary: In order to address the aggressive invasive speices, Japanese Knotweed, along the Nashua RIver that is overtaking the native vegetation and threatening to destabilize the river banks, Friends of Woodlands and Waters has secured a grant in partnership with the USFWS/Oxbow National Wilflife Refuge to treat Japanese Knotweed with herbicides and once controled, will intend to plant natives to restore and stabilize the banks. In September 2025 – licensed herbicide applicators will be contracted to spray and/or wipe leaves with herbicide. Follow-up treatments will be required and the specifics of these will depend on the state of the knotweed at the time, and how effective previous treatments were. Annual reports will be compiled to report status of the site and effectiveness of treatments and inform follow up treatment plans.

In order to address invasive plant species that are overtaking the native vegetation along the bank of the Nashua River throughout out this stretch and threatening to destabilize the riverbank, the Friends of Woodlands and Waters is partnering with the USFWS, and Water & Wetland (https://www.waterandwetland.com/) to treat Japanese Knotweed. The project will improve the habitat in the riparian zones in Devens on both the Ayer and Shirley sides of the Nashua River by managing invasive Japanese Knotweed with herbicide. The Friends of Woodlands and Waters has secured funding for this project and are requesting this Determination of Applicability. This project is part of a regional effort led by other local conservation organizations north and south of the Oxbow National Wildlife Refuge. Japanese Knotweed is a regional concern for the riverine system and watershed, thus a collaborative approach is warranted. The Nashua Wild and Scenic Rivers Stewardship Council supported this project by funding a Community Grant and helped identify the project as a priority in regional invasive species management planning.

Friends of Woodlands and Waters, in support of the Oxbow NWR, is intending to contract with Water and Wetland to treat Japanese Knotweed within the Oxbow NWR, in September 2025. USFWS are familiar with the work of Water and Wetlands and have used them for treatment of invasive plants in aquatic ecosystems. Following the proposed treatment, a summary will be provided by Water and Wetland including photos, notes, and recommendations specific to the treatment site. The area will be monitored to ensure that erosion does not become a problem. In time, once the Knotweed has been controlled, native plants will be installed to restore habitat and stabilize riverbanks.

There will be ongoing monitoring and documentation of progress in the treated areas. This is anticipated to be a multi-year effort and results from this year will inform future planning. We want to treat the Knotweed within the Oxbow NWR area to be consistent with what other organizations are doing concurrently along the Nashua River. Regional control is needed to ensure the sources of Knotweed are depleted.

The licensed applicator biologists will utilize both foliar application and hand wiping as appropriate based on the specific size and density of each stand, as well as non-target natives present. The wiping application is more controlled and appropriate for use when non-target species are nearby. In the future cutting of Knotweed in June and / or direct stem injection may be potential alternative treatments.

Within the treatment area Knotweed has been visually surveyed with hand-held GPS by NWR staff biologists to create the locus map submitted with this Request. Foliar application methodology will utilize Rodeo, AquaPro, or AquaNeat (glyphosate), appropriate for aquatic areas, and will be paired with a non-ionic surfactant which acts as a sticking agent and increases uptake and penetration throughout the target invasive species. Selective application with low-volume backpack sprayers will ensure target species are properly treated. All plant material will be left in place. In low density areas and/or areas in the direct vicinity of non-target native species, we recommend incorporating selective use of either hand-wiping. Hand-wiping utilizes a hand-held weed wiping tool/sponge. Herbicide is applied directly to the surface of the leaves. In the future, stem injection, a process by which herbicide is directly injected into a plant's hollow cane, may be used since transfer of herbicide into the plant's root system is increased and there is less risk of non-target plants being impacted. In 2025 this is not feasible with the current density of the stands, difficulty accessing the site, and resources available.

The following products are planned for use in the treatment program:
Glyphosate (AquaPro - EPA # 62719-324-67690, Rodeo – EPA # 62719-324) or equivalent.
Foliar treatment with backpack sprayer and manual application will be performed in 2025 but stem injection may be possible once the number of stalks have been reduced.

Several treatments will be required for effective control over a multiyear period. We request the project be approved for 3 years so that herbicide application described above will continue each fall for 3 years, so long as additional funding is secured. In subsequent years manual cutting and appropriate removal of the plant material from the site in combination with herbicide treatment may be pursued if time and funding allow. Native plants will be planted in the future to help restore the ecosystem and stabilize the banks.

This is a Limited Project that will be executed along the bank and within the buffer to BVW, but will not disturb the soils and only target Japanese Knotweed. The licensed herbicide applicator will take precautions and implement BMPs to avoid and minimize impacts to non-target species.

The work is in areas subject to the Wetlands Protection Act, but will not remove, fill, dredge or alter that area, an area subject to protection in the Act except for targeting the invasive Japanese Knotweed so that restoration of native plants can occur.

The area is within Estimated Habitat for Rare, Threatened, and Endangered Species and coordination with NHESP is underway. A Habitat Management Plan is being developed and submitted for review and approval by NHESP.

BACKGROUND INFORMATION

Japanese Knotweed (*Polygonum cuspidatum*), The Common Invasive Plant

- Japanese knotweed is native to eastern Asia and was first introduced into North America in the late 1800s. It was used as an ornamental plant on properties and also for erosion control due to its deep and interwoven root system.
- Japanese knotweed is a dense growing shrub reaching heights of 10 feet and looks like a bamboo. The semi-woody stem is hollow with enlarged nodes. Leaves are alternate, 6 inches long, 3-4 inches wide and broadly-ovate. Stems are green and mottled during the growing season and turn a dark brown/red in the winter. It has broad, oval, dark-green leaves that are pointed at the tip. It also has small greenish-white flowers during the summer that trail down the stems that are followed by small, winged fruits later in the season. New growth looks like red asparagus stalks.
- Japanese knotweed commonly invades disturbed areas with high light, such as road sides, stream banks and shorelines, but can also grow in full shade conditions with a high drought tolerance, a high temperature tolerance and high salinity conditions.
- Reproduction occurs both by rhizomes (lateral growing roots) and seeds, making this plant extremely hard to eradicate. The plant has also been known to reproduce simply from cuttings which allows for many means of dispersion. Knotweed is also difficult to control because it has a massive underground root system and any part of the root or stalk can regrow.
- The stands are so dense that they shade out other plant species, reducing wildlife habitat for native species. This plant is extremely hard to eradicate once established, so the key it preventing establishment by manually removing immature clusters. Along river banks, the shallow root growth can cause unstable banks, which is exacerbated by knotweed dying back in the fall.
- Knotweed causes many problems for native plants, insect populations, and waterways. Knotweed outcompetes and replaces native vegetation. This loss hurts insect populations which depend on native plants for food. As insect populations decline, fish, birds, and mammals that eat insects suffer as well. Rivers and streams also face an increased erosion risk from uncontrolled knotweed populations. The ground beneath dense growths of knotweed rarely supports other vegetation leaving the bare soil very susceptible to erosion.

Control and Prevention

- Although challenging, knotweed populations can be brought under control through a multifaceted approach. Generally, the most effective treatment is a combination of both mechanical and chemical treatment by cutting and herbicide application respectively. However, frequent cutting, three to four times, throughout the growing season for

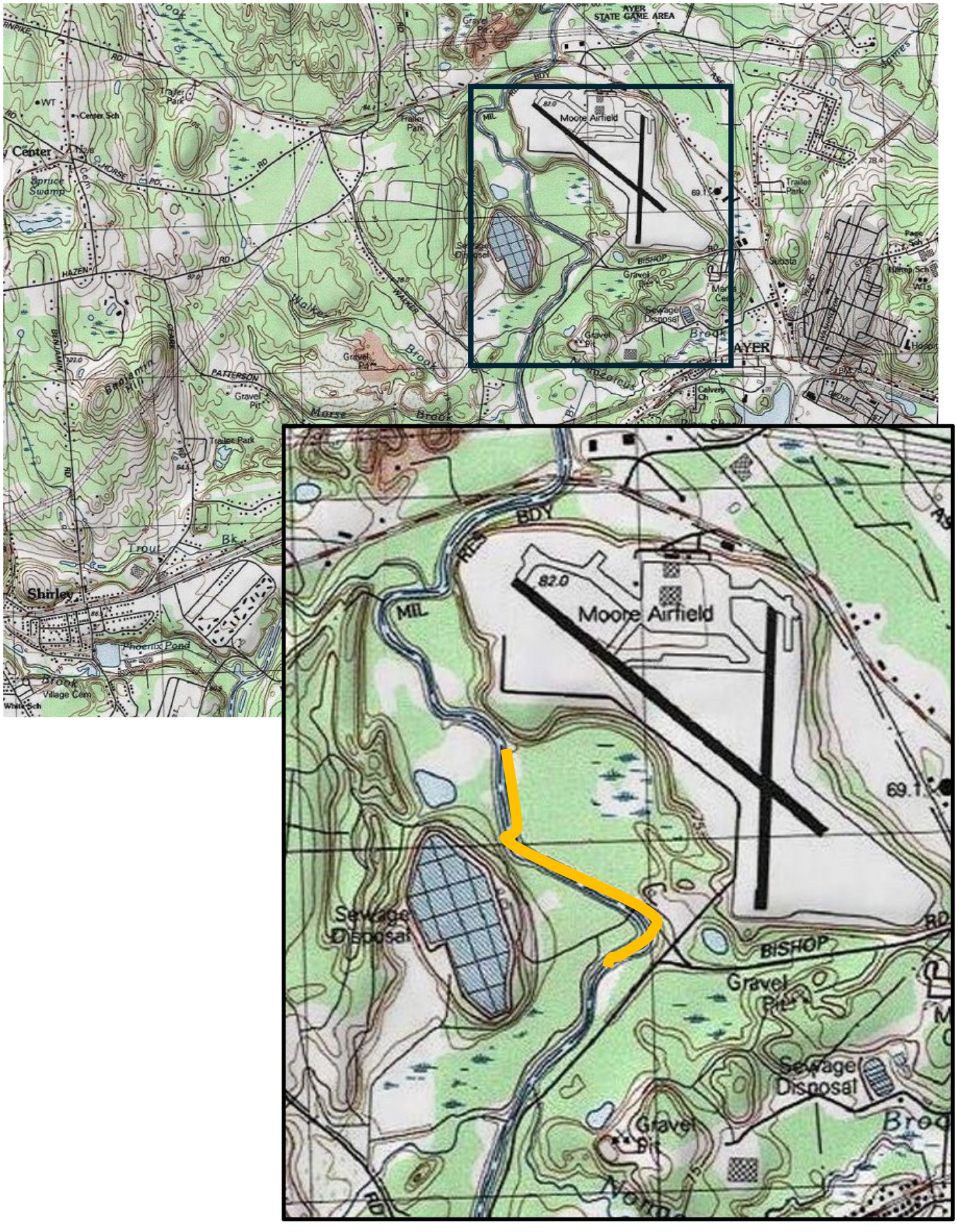
multiple years may be enough. Cutting can be done using loppers, machetes, scythes, and even mowers. Herbicide can be applied to cut stems earlier in the growing season or sprayed on leaves later in the season. Make sure the herbicide is appropriate for use near water or contact a professional for chemical treatment.

- Knotweed can be prevented from spreading by ensuring that entire root systems are removed when pulling small plants. All plant parts must also be bagged so they cannot become re-established, in a compost pile for example.
- The most important preventive methods involve planting native vegetation along river and stream banks and in disturbed areas and, if knotweed is detected, responding immediately before it spreads.

Invasive Plant Designations in Massachusetts

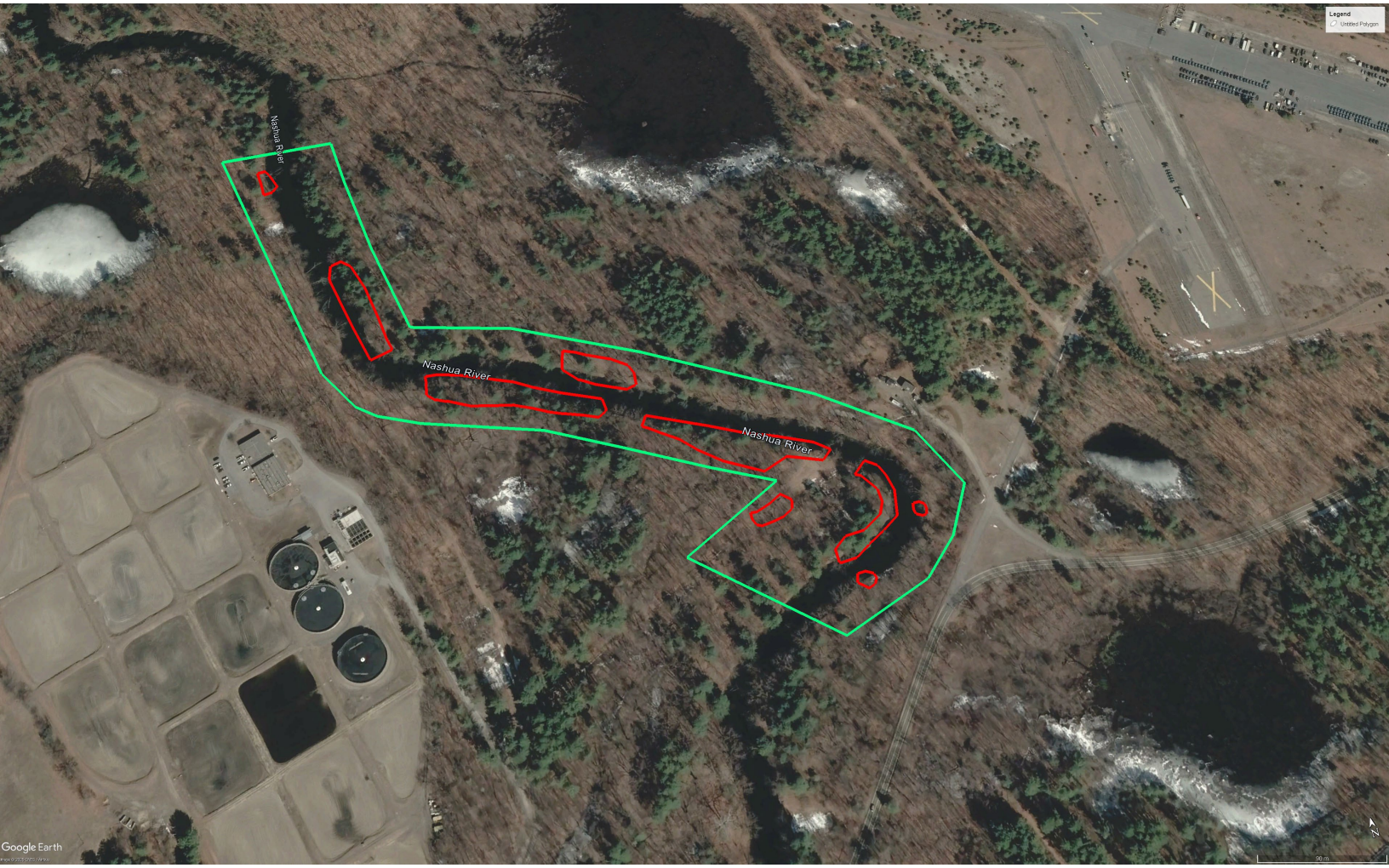
- The Massachusetts Invasive Plant Advisory Group, comprised of experts from academia, natural resources management, and the nursery industry, evaluates aggressive plants in Massachusetts and determines which are invasive. "Invasive" plants are non-native species that have spread into native or minimally managed plant systems in Massachusetts. These plants cause economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems. Such designated invasive plants are banned from sale or propagation in MA.

RDA Supporting Maps - Locus
Japanese Knotweed Treatment
50 MacPherson Road, Devens
Within Oxbow National Wildlife Refuge



RDA Supporting Maps – Limit of Work and Knotweed Locations
50 MacPherson Road, Devens
Within Oxbow National Wildlife Refuge

-Red areas are knotweed concentrations
-Green outline is the extent of the Limit of Work Area
-Treatment will occur on knotweed withing Limit of Work



RDA Supporting Maps – Habitat and Wetlands
Japanese Knotweed Treatment Locus
50 MacPherson Road, Devens
Within Oxbow National Wildlife Refuge

-Estimated Habitat is hatch marked
-MassDEP Wetlands Layer is light blue for the Nashua River blue and plant and water textured for marshes

RDA Supporting Maps – Flood Zone
Japanese Knotweed Treatment Locus
50 MacPherson Road, Devens
Within Oxbow National Wildlife Refuge

FEMA Flood Map (NFHL)
-Regulatory floodway is hatch marked
-Blue is 1% chance annual flood hazard
-Orange is 0.2% chance Annual Flood Hazard