Capital Region PRISM
Partnership for Regional
Invasive Species Management
www.capitalregionprism.org

Cornell Cooperative Extension | Saratoga County
50 West High St.
Ballston Spa, NY 12020
(518) 885-8995

Invasive Species Management Plan (ISMP):

A Framework for Control

Purpose:

The Invasive Species Management Plan (ISMP) template is a working document to help guide invasive species treatments after early identification and surveys have been conducted. The guide includes steps for post treatment monitoring and restoration over a five-year period. The ISMP template is designed to treat a specific infestation at a given location. Multiple ISMP can be deployed over a larger geography. In such a case a more comprehensive plan should be considered when prioritizing multiple treatments in a park or preserve like setting.

The framework built into this template helps to identify all the variables that are more likely to result in more successful treatments with lasting effects into the future. All management strategies should consider an Integrated Pest Management (IPM) approach and a Framework of Response. Invasive species management plans should be independently reviewed by a project manager or a Capital Region PRISM Coordinator.

Section 1: Project Summary

The project summary provides an overview of the site with a description including contact information, location, current land use, species present, and other related parcel characteristics. The project description identifies the treatment target. Survey maps and reports are included in this segment, potential land managers/owners are identified with approval. Map(s) outlining the project site and infestation area are clearly marked. Elements from preexisting survey reports can be used to supplement this segment. All permits are secured and completed before commencement of treatment. State Environmental Quality Review (SEQR) checklist should be completed at this stage. SEQR requires the sponsoring or approving governmental body to identify and mitigate the significant environmental impacts of the activity it is proposing or permitting.

The project summary includes a step to determine if the proposed work is feasible and justifiable by completing an Invasive Plant Management Decision Analysis Tool (IPMDAT) simulation, when applicable. The Capital Region PRISM recommends using the tool to help determine if an invasive plant control project is likely to be successful and if it warrants an investment of their agency's resources. To justify spending resources on an invasive plant control project: The invasive species must cause serious environmental or economic harm or harm to human health.

In addition, work in a specific geography can be assessed to see if it falls into an area relevant for protection on the New York Invasive Species Prioritization Models. These models were created to highlight areas of the state that have high ecological significance, a high risk of spread of invasive(s) into the area and a high value according to their protected status. The models can be used to help guide and justify invasive species efforts. The map can be accessed on the Capital Region PRISM Prioritization page.

Finally, it is strongly encouraged to determine if conservation priority species or habitat are located in or near the geographic area where the proposed work will occur. The Capital Region PRISM suggests the use of the New York State Department of Environmental Conservation (NYSDEC) "Environmental Resource Mapper" to identify significant natural communities, and rare plants or animals. The NYSDEC has also developed a list of threatened and endangered species of New York State and a list of species with the greatest conservation need that should be referenced before starting treatment to ensure management will not cause any harm to these species.

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Section 2: Implementation Summary

The implementation summary will provide guidance on treatment methods with best management practices, monitoring, and restoration strategies. After a 3-5-year period, a new assessment using the ISMP template may need to be conducted based on changing site conditions and parcel priorities.

Section 3: Project Implementation

The implementation segment contains treatment timelines and post season summaries. Always consider the phenology of the invasive target when deploying a treatment to be effective. A post season summary will be completed to document successes, failures, and needed adjustments to the management approach. Future treatment timelines will reflect such reassessment needs.

Saving Plans

Please submit your Invasive Species Management Plan to the Capital Region PRISM for review. ISMP will be saved in an online repository for historical purposes and future considerations. All survey and treatment data associated with the project should be reported in the New York iMap Invasives online data base. Please contact the PRISM for survey report forms.

Section 1: Project Summary

Project Name	**37 Dearstyne Rd- Japanese Butterbur**
Location	37 Dearstyne Rd, Troy, New York, 12180
Latitude / Longitude	42.719046N, 73.574410W
Project Manager / Title	Samantha Schultz/ Association Program Coordinator
Project Manager Contact	ss986@cornell.edu
Owner Name / Title	Kevin Doyle
Owner Contact	kevnow@nycap.rr.com

Site Description: Provide existing conditions of the site, including species present, ecologic condition, current land use, stakeholders and or historical uses.

This site is on a steep hill by the roadside. The hill was once used as a driveway long before the owner. The owner and his wife own a midwifery. Through this site runs a drainage ditch and many invasive plants inhabit this area. The invasive of concern is butterbur but other species like multiflora rose, honeysuckle, garlic mustard, and dames rocket grow throughout. Farm fields are in use across the road which causes concern for the spread of butterbur.

Project Description: Provide a clear and concise of the work to be conducted, conservation targets and desired future conditions.

Japanese Butterbur is a Tier M species in the PRISM, meaning that there is not a lot of information known about it. Management practices are still being researched, so methods will be tested on this site to find which is most effective. The initial treatment was in May, digging up the roots and disposing in a sanitary landfill. A follow-up treatment was conducted in early June by cutting plants to the ground and laying thick plastic to solarize the plants. Using best management practices from similar plants chemical application via a foliar spray is recommended for the homeowner to explore as an option.

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Overall Project Size:

0.06 acres

SEQR Form Complete? [Add as an Appendix] No

Does the work proposed fall into a well-defined area of ecologic significance and risk as indicated on the NY Invasive Species Prioritization Models?

No [Optional Step/Include in Map Section]

Invasive Plant Management Decision Analysis Tool (IPMDAT) Recommendations. [Optional Step/Include in Map Section]

N/A

Pesticide Use Proposed?

Yes

Aquatic Pesticide Permits: https://www.dec.ny.gov/chemical/8530.html
Pesticide Laws and Regulations: https://www.dec.ny.gov/chemical/112881.html

List Associated Master Plan if relevant to a larger project: [link file URL or attach as an Appendices]

N/A

Map: Develop a map of the project area showing the geography and extent of infestation. Partners are strongly encouraged to use iMap Invasives or to define survey and treatment areas using points and/or polygons.

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Section 2: Implementation Summary

This section provides descriptions of any treatment methods, restoration, and monitoring efforts occurring over the course of the plan.

Treatment: Describe in detail treatment methods selected for the site and why they were chosen along with any alternatives considered. [Best management practice(s) should be outlined and sourced] State the estimate the number or abundance of species to be treated/removed and method of disposal. Describe the level of anticipated site disturbance and mitigation. If using a pesticide, provide the chemical name and application method.

Initially, the roots were dug up, using a shovel, and disposed of in a sanitary landfill. The second treatment for these species was conducted via cutting the leaves and solarizing the roots with a black tarp. Plant material was left on site. Then half of the cut area by the roadside was covered in black plastic and rocks were placed to hold the tarp in place. Using best management Chemical treatment methods have also been discussed. Any chemical applications would be completed by the private landowner, since there are no designated treatment options for Japanese butterbur, foliar application or stem injection was recommended.

Restoration: Briefly explain the revegetation efforts that will occur. If doing active restoration, make sure to attach a list of native plants to be used, seed mixes, and any preferred nurseries. Describe when native seeds will be collected on site. If a separate restoration plan was developed, reference it here. If not actively restoring, explain why. (ex. Allelopathy, native seed source in place, minimal disturbance).

No restoration is planned for this site.

Post-Monitoring: Explain the monitoring procedure, when it will occur and why, and who will complete it.

The landowner will be monitoring throughout the season and Capital Region PRISM will be doing an annual check. Any spread of plants into the understory and across the street at the farm fields will continue to be monitored. Post-treatment monitoring is important to better understand the best management practices for this species.

Treatment, Post-Treatment (Monitoring), and Restoration Calendar: Briefly outline when treatment, restoration efforts, and post treatment monitoring are anticipated to occur with a date range. When completed check the box next to the targeted date range with an initial.

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	Year 1	Year 2	Year 3	Year 4	Year 5
Early Spring	☐	☐	☐	☐	☐
Late Spring	☐ **5/11/22 Treatment-** Dig up butterbur roots on the side closer to the ditch	☐	☐	☐	☐
Summer	☐	☐ **6/8/23** Treatment- Cut back butterbur to the ground and solarize	☐	☐	☐
Early Autumn	☐	☐	☐	☐	☐
Late Autumn	☐	☐	☐	☐	☐

Notes: Make notes as necessary and keep the documentation simple. Base work off of plant phenology for treatments and revegetation. Document why things did not work with recommended adjustments in the post season report.

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Section 3: Project Implementation - Year 1 (2022)

Treatment Schedule: Plan out when and how treatments will occur. Attach and reference separate spreadsheet if more space is needed for additional species. Include the tier level and threat ranking of each species.

Target Species Tier and Rank	Area Infested (acres)*	Species Abundance (%)	Target Goal (%)	Treatment Window (MM/DD/YY)	Treatment Method	Disposal Method
Japanese Butterbur Tier M High	0.07	98%	0%	05/11/23	Dig up roots	Bagged and Trashed

*If infestation is linear, use miles to measure "area infested"

Post Season Report

End-of-Year Summary:
Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

The roots of Japanese butterbur are a thick, dense mat of woody roots. Removal of the plants was very labor intensive. Manual removals are not recommended in the future for this plant. This removal took 3 hours with one person to get 45% of the population removed.

Adjustments Needed:
Explain any changes to be made for future years and update treatment restoration and calendars.
Reminder: if the project changes drastically (i.e., switch from manual control to chemical control) it may require a new SEQR review.

Year 1 Notes:

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Section 3: Project Implementation - Year 2 (2023)

Treatment Schedule: Plan out when and how treatments will occur. Attach and reference separate spreadsheet if more space is needed for additional species. Include the tier level and threat ranking of each species.

Target Species Tier and Rank	Area Infested (acres)*	Species Abundance (%)	Target Goal (%)	Treatment Window (MM/DD/YY)	Treatment Method	Disposal Method
Japanese Butterbur Tier M High	0.06	98%	0%	06/08/23-06/09/23	Cut and solarize	Leave on site

*If infestation is linear, use miles to measure "area infested"

Post Season Report

End-of-Year Summary:
Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

Plants were cut to the ground and leaves were left on site. Following cutting plants down to the ground, thick black plastic tarp was laid down to solarize the roots. The first day consisted solely of cutting plants down to the base with two people and it took about 3 hours, the second day three people worked to lay out the tarp and move rocks from a pile the landowner had to cover the tarp and ensure it stayed in place. Laying down tarp and placing rocks took another 3 hours.

Adjustments Needed:
Explain any changes to be made for future years and update treatment restoration and calendars.
Reminder: if the project changes drastically (i.e., switch from manual control to chemical control) it may require a new SEQR review.

Due to the infeasibility of managing this plant long-term, the Capital Region PRISM recommended the landowner conduct a foliar application or a stem injection to these plants with herbicides. Since there is not much information on management of Japanese butterbur, the best management practices suggested were similar to treatment for Japanese knotweed due to the similarities with the deep roots being the main concern for risk of spread.

Year 2 Notes:

Treatment from the previous year did not show a lot of success. Plants grew back just as aggressively, if not more so in the treated area. The Capital Region PRISM will no longer be conducting methods on this plant population but will reach out to the landowner or make a site visit annually to see what the best management practices have been for this plant.

Best management practices for Japanese knotweed and the Capital Region PRISM's pesticide applicator list were shared with the homeowner.

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Section 3: Project Implementation - Year 3

Treatment Schedule: Plan out when and how treatments will occur. Attach and reference separate spreadsheet if more space is needed for additional species. Include the tier level and threat ranking of each species.

Target Species Tier and Rank	Area Infested (acres)*	Species Abundance (%)	Target Goal (%)	Treatment Window (MM/DD/YY)	Treatment Method	Disposal Method

*If infestation is linear, use miles to measure "area infested"

Post Season Report

End-of-Year Summary:
Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

Adjustments Needed:
Explain any changes to be made for future years and update treatment restoration and calendars.
Reminder: if the project changes drastically (i.e., switch from manual control to chemical control) it may require a new SEQR review.

Year 3 Notes:

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Section 3: Project Implementation - Year 4

Treatment Schedule: Plan out when and how treatments will occur. Attach and reference separate spreadsheet if more space is needed for additional species. Include the tier level and threat ranking of each species.

Target Species Tier and Rank	Area Infested (acres)*	Species Abundance (%)	Target Goal (%)	Treatment Window (MM/DD/YY)	Treatment Method	Disposal Method

*If infestation is linear, use miles to measure "area infested"

Post Season Report

End-of-Year Summary:
Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

Adjustments Needed:
Explain any changes to be made for future years and update treatment restoration and calendars.
Reminder: if the project changes drastically (i.e., switch from manual control to chemical control) it may require a new SEQR review.

Year 4 Notes:

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Section 3: Project Implementation - Year 5

Treatment Schedule: Plan out when and how treatments will occur. Attach and reference separate spreadsheet if more space is needed for additional species. Include the tier level and threat ranking of each species.

Target Species Tier and Rank	Area Infested (acres)*	Species Abundance (%)	Target Goal (%)	Treatment Window (MM/DD/YY)	Treatment Method	Disposal Method

*If infestation is linear, use miles to measure "area infested"

Post Season Report

End-of-Year Summary:
Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

Adjustments Needed:
Explain any changes to be made for future years and update treatment restoration and calendars.
Reminder: if the project changes drastically (i.e., switch from manual control to chemical control) it may require a new SEQR review.

Year 5 Notes:

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