



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. 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 Environmental Assessment Forms](#)

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. 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 at the [Capital Region PRISM Prioritization](#) page.

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 in a calendar 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 on line 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	Mile-a-Minute Eradication
Location	Five Rivers Environmental Education Center, 56 Game Farm Rd, Delmar, NY 12054
Latitude Longitude	42.61154, -73.89431
Owner /Title	NYS Department of Environmental Conservation
Owner Contact	anik.gibeau@dec.ny.gov
Project Manager / Title	Sam Schultz, Terrestrial Invasive Species Coordinator (CRP)
Address	50 West High St. Ballston Spa, NY 12020
Phone	518.321.2211
Email	ss986@cornell.edu

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

Five Rivers Environmental Education Center is a living museum comprising over 450 acres of fields, forests, and wetlands. Located in the Capital District, the center provides a variety of easily accessible programs and services for individuals, families, and organized groups. In recognition of outstanding interpretive programming, the National Park Service has designated Five Rivers a National Environmental Study Area. There is a visitor center with interactive displays and exhibits, built in June 2017.

The areas impacted by the Mile-a-Minute (*Persicaria perfoliata*) on the property are along the Volmankill Trail and behind one of the service buildings in a gravel dump pile.

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

Mile-a-Minute is to be hand pulled along the Volmankill Trail and the dump pile behind the service building on the property. The goal of this management is eradication .

Overall Project Size:

acres

SEQR Form Complete? [Add as an Appendix]

N/A

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, Tier 2 Species

[Optional Step/Include in Map Section]

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

NA

Pesticide Use Proposed?

No

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.



Searched Area ID: 1041826

Section 2: Implementation Summary

This page 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.

Mechanical and Manual Control: Plants are hand pulled in areas where native plants are dominant to avoid non-target species removal. Plants are bagged and disposed of in a sanitary landfill to prevent further spread. Biocontrol is a non-viable option due to the small size of this infestation, making hand-pulling the next best option [1]. Site disturbance is to be minimal due to the low number of plants present on site. Disturbed soil is tamped down following every removal.

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 if 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 planned for this site

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

Each year, the CR-PRISM staff monitor the site multiple times from June- September to prevent plants from going to seed. CR-PRISM is actively treating and monitoring this site. It is within the boundaries of the Capital Region, a high threat, tier 2 species with a moderate comprehensive score.





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.

	Year 1 (2018)	Year 2 (2019)	Year 3 (2021)	Year 4 (2022)	Year 5 (2023)
Early Spring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Late Spring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Summer	<input type="checkbox"/> Survey was conducted to determine extent of infestation (7/31/18) and initial treatment	<input type="checkbox"/> Post treatment monitoring (8/5/2019)	<input type="checkbox"/> Post treatment monitoring (8/17/2021)	<input type="checkbox"/> Post treatment Monitoring (6/30/22)	<input type="checkbox"/> Post treatment Monitoring (6/26/2023)
Early Autumn	<input type="checkbox"/> Post-treatment monitoring (9/15/18)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Post Treatment Monitoring (8/22/2023)
Late Autumn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Post treatment monitoring (10/5/21)	<input type="checkbox"/>	<input type="checkbox"/>

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





Section 3: Project Implementation - Year 1- 2018

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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method
Mile-a-Minute (<i>Persicaria perfoliata</i>) Tier 2, High	0.8 acres	15%	0%	7/31/18- 9/15/18	Hand pulling	Trash

Post Season Report

End-of-Year Summary:

Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

In two visits, the Terrestrial staff of the Capital-Mohawk PRISM removed 340 stems of Mile-a-Minute over an area of .8 acres. In addition to the removal of this pest, Elizabeth Jamison (a CR-PRISM intern) produced a flyer with information on the plant for display at the Environmental Education Center.

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.

July seemed to be a good time to begin management activity as the plants that were pulled did not grow back. August and September make a good follow-up date if needed as the plants that were not immediately visible during the first visit were seen on the second visit. Additionally, the fruit that was growing was still immature at this point. PRISM staff should visit Five Rivers around those times during the next year to ensure continual control of this voracious plant pest.

On the Five Rivers side, during the spring and summer, monitoring of other places in the preserve where construction has occurred in the last one or two years should take place. Seasonal staff would be well served by being instructed on how to identify Mile-a-Minute, as well as additional emerging invasive plants that have been seen on the property such as Japanese Hops and Beefsteak Plant. If requested, PRISM staff could do an invasive species training for seasonal staff of the preserve, or training materials could be provided.

Year 1 Notes:

Visit #1:

On 7/31/18, Spencer Barrett, Terrestrial Invasive Species Coordinator for the PRISM, Kristopher Williams, PRISM Coordinator, and interns Lily-Anne Trainor and Elizabeth Jamison traveled to Five Rivers to evaluate the reports of Mile-a-Minute Vine that they had gotten from staff at the center. Quickly upon arriving, they were joined by Alex, who was the original discoverer of the population and showed the team where the plants could be found along the Vlomankill trail. At this time, the population spread down the hill immediately following the start of the trail, across the bridge spanning the creek, and down the north fork of the trail following the junction at the bottom of the hill. While Kristopher met with Gina Jack, Director of Five Rivers, staff hand-pulled the area that can be seen in Figure 1 below. The team pulled 332 stems, all of which were vegetative. The plant appeared to follow a line, sprouting from what appeared to be fresh fill material which is believed to be the source of the seeds. The plant was especially vigorous on the west side of the trail, though there were stems that were removed on the east side as well.





The online treatment report for the work done this day can be viewed on iMap Invasives. (Obs: NY-452713U, Treatment: NY-100858U-T)

Visit #2:

Spencer Barrett and Gwendolyn Temple, Aquatic Invasive Species Coordinator for the PRISM, manned a table during the 2018 Five Rivers Fall Festival on September 15th. During this time, Spencer took the opportunity to check back on the Mile-a-Minute population to see if there were stems that were missed either due to size, the roots not being completely removed, or that were hidden beneath the Colt's Foot that also grows in the same section of the trail. During his visit, he pulled an additional eight stems that were not removed during the first visit to the site, including one that was in immature fruit. In August, it was clear that the plant had kept growing, as stems that were not visible during the first visit became visible at a later date.





Section 3: Project Implementation - Year 2- 2019

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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method
Mile-a-Minute (<i>Persicaria perfoliata</i>) Tier 2, High	0.5 acres	10-15%	0%	8/5/19	Hand pulling	Trash

Post Season Report

End-of-Year Summary:

Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

A 6-person crew resurveyed along Vlomankill trail at the Five Rivers DEC Environmental Center to assess and ongoing small but serious infestation of the plant identified in 2018. Source of materials may have been brought in by contaminated soil or crusher run rock used to make train and culvert improvements.

- Removed ~25 plants – 2 plants were mature (1m tall) with no seeds or flowers, the rest were seedlings
- All plants were found <1.5m off trail under Coltsfoot and most in an area that receives sunlight

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 2 Notes:

Plants seed anytime from June to the first frost so the area should be checked regularly.





Section 3: Project Implementation - Year 3- 2021

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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method
Mile-a-Minute (<i>Persicaria perfoliata</i>) Tier 2, High	0.3 acres	<5%	0%	8/17/21- 10/5/21	Hand pulling	Trash

Post Season Report

End-of-Year Summary:

Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

There were 28 plants removed from the river earlier in the summer by the workers of the Five Rivers and 20 plants were removed from the staging area by Capital Region PRISM.

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.

Continue to monitor regularly

Year 3 Notes:

Five Rivers Environmental Education Center where mile-a-minute was introduced from crusher run gravel. There are 2 main sites where infestations have been found, one where they put the crusher run down for the trail by the river, and one where the gravel was staged up above by an old barn.





Section 3: Project Implementation - Year 4- 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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method
Mile-a-Minute (<i>Persicaria perfoliata</i>) Tier 2, High	0.1 acres	<5%	0%	6/30/22- 9/14/22	Hand pulling	Trash

Post Season Report

End-of-Year Summary:

Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

One plant was found during initial survey. No plants were found during follow up survey.

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.

Continue to monitor, this site is nearing eradication. Post-treatment monitoring is essential to ensure there is no regrowth.

Year 4 Notes:





Section 3: Project Implementation - Year 5-2023

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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method
Mile-a-Minute (<i>Persicaria perfoliata</i>) Tier 2, High	0.0002 acres	<5%	0%	6/26/23	Hand pulling	Trash
Japanese Stiltgrass (<i>Microstegium vineum</i>) Tier 3, High	0.0002 acres	5%	0%	6/26/23	Hand pulling	Trash
Mile-a-Minute (<i>Persicaria perfoliata</i>) Tier 2, High	0.0002 acres	Not detected	0%	8/22/2023	Not detected	Not detected

Post Season Report

End-of-Year Summary:

Explain any successes, failures, or needed adjustments. Including restoration, missed treatments, not monitoring, etc.

Four stems were found on site. Japanese stiltgrass was also removed along the streambed.
A second visit during the season was conducted and zero stems were found on site.

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.

Continue to monitor, this site is nearing eradication. Post-treatment monitoring is essential to ensure there is no regrowth.

Year 5 Notes:





Section 3: Project Implementation - Year 6

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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method

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:

