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): Japanese Stiltgrass at Daniel's Rd State Forest

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.

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Section 1: Project Summary

Project Name	Japanese Stiltgrass Eradication
Location	Daniels Rd. State Forest, 129 Daniels Rd Saratoga Springs, NY 12020
Latitude Longitude	43.104939°N, 73.794805°W
Owner /Title	Rich McDermott, State Forester (Region 5)
Owner Contact	rich.mcdermott@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.

The 523-acre Daniels Road State Forest is an Ecologically Significant Forest Community. The presence of wetland and mixed hardwood forest are characteristic features of the property. The State Forest is a high priority conservation area with a moderately high comprehensive score. The Saratoga Mountain Bike Association (SMBA) maintains an extensive trail system throughout the state forest. The goal of the treatment was to contain the spread of the Japanese stiltgrass by suppressing the plant from going into seed.

The area infested is the parking lot and an access road, that is shared with a private landowner, entering the parking area. The seeded vegetation from the stiltgrass follows the disturbance of soil from vehicle traffic in pull-off ruts and puddles. The JSG has not appeared to have entered the forest at this time. Signs were posted alerting the public of the presence of the Japanese stiltgrass at two kiosks. The stiltgrass also spreads off onto adjacent properties, notably the landing area for logging, further complicating treatment options for this population.

The Japanese Stiltgrass may have been unintentionally introduced in unclean gravel/crusher run used to improve road access and parking lot to the entrance of the forest. The presence of Japanese stiltgrass at this location is the third known occurrence of this invasive in the Capital Mohawk PRISM where gravel was brought in for access road improvement.

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

The presence of Japanese stiltgrass (JSG) was found at the monitoring site in 2018. The JSG in this location has become entrenched around the perimeter of the parking area and access road. Continued treatment of the site each year before the JSG goes to seed is planned with the hopes of containing the spread of this invasive into the forest. Each year, plan to weed whack dense patches and hand-pull in areas where native species dominant to prevent non-target destruction. A large potential spread threat exists with the high use activity of mountain biking in the area.

Overall Project Size:

9.79 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?

Yes [Optional Step/Include in Map Section]

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

Supression

Pesticide Use Proposed?

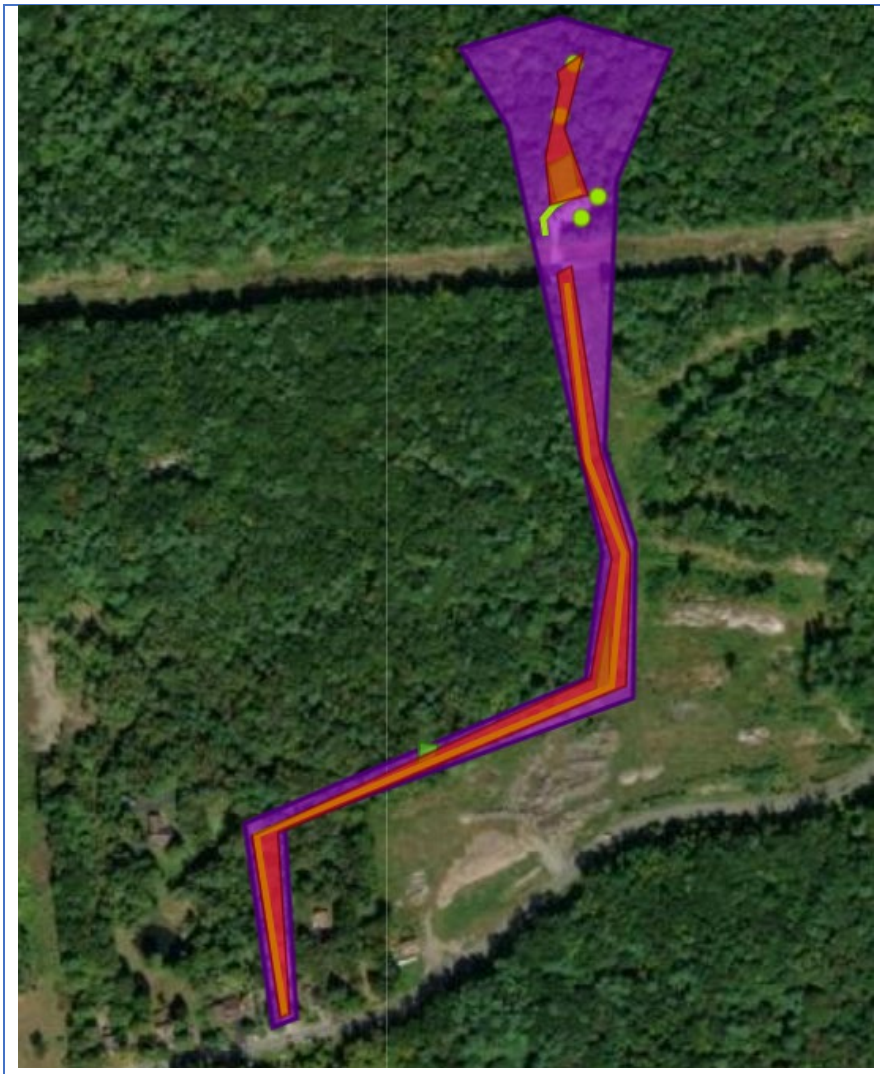
No

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: 1193145

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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. Dense patches of JSG along road and trailhead are being weed-whacked previous to seeding to suppress infestation. Plants should be left on site, if treating after plants have seeded, bag any hand pulled plants and dispose of in a sanitary landfill to prevent further spread.

These methods were selected as seed suppression has been seen to have the best effects on control of JSG [1]. The current known infestation stretches 9.79 acres. The site is anticipated to be moderately disturbed by management of JSG but disturbance will be mitigated by mixing native seeds into the soil each fall directly following treatment of JSG.

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).

Native plants continue to take over this area. Each fall, native seeds will be collected at this site and spread in the infested area after treatment of the Japanese stiltgrass is complete for the year. With native seeds being spread at this site, Japanese stiltgrass may be shaded out and make future management at this site easier. An alternative effort to assist in suppressing new seedlings and regrowth is layering mulch 6 inches deep around the trail entrance, near the drainage area. The OPRHP has found this method to work [2].

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

Each year in mid-July, monitor the site for regrowth of JSG. Follow up with mechanical and manual treatment of Japanese JSG, in late August/early September before plants go to seed. Capital Region PRISM is actively treating and monitoring this site. It is within the boundaries of the Capital Region and the State Forest is a high priority conservation area with a moderately high comprehensive score.

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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	Year 2	Year 3	Year 4	Year 5
Early Spring	☐	☐	☐	☐	☐
Late Spring	☐	☐	☐	☐	☐
Summer	☐ Survey was conducted to determine extent of infestation	☐ Post treatment monitoring	☐ Post treatment monitoring	☐ Post treatment monitoring	☐ Post treatment monitoring
Early Autumn	☐ Manual and Mechanical Removal of Japanese Stiltgrass 9/5/2019	☐ Follow-up treatment and restoration 9/14/2020	☐ Follow-up treatment and restoration 9/20/2021	☐ Follow-up treatment and restoration	☐ Follow-up treatment and restoration
Late Autumn	☐	☐	☐ Re-evaluate successes and failures note in the ISMP	☐ Re-evaluate successes and failures note in the ISMP	☐ Re-evaluate successes and failures note in the ISMP

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- 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
Japanese Stiltgrass (Microstegium vimineum) Tier 3, Very High	9.79 acres	90%	0%	N/A	N/A	N/A

Post Season Report

End-of-Year Summary:

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

No treatment this year. JSG was found during an initial survey, treatment planned for following year.

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.

N/A

Year 1 Notes:

N/A

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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
Japanese Stiltgrass (Microstegium vimineum) Tier 3, Very High	1.2 miles	80%-100%	Parking lot perimeter, <25%	9/5/19	Mechanical	Left on site

Post Season Report

End-of-Year Summary:

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

JSG is an annual and there is a possibility for eradication from the site. Monitoring and treatments will be expanded through 2020-2023 each time checking for feasibility of management. Additional treatment may be applied late in the fall of 2019. More research is needed on best management practices in containing the JSG.

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.

1. Mulch 6 inches deep should be layered around the trail entrance near the drainage area. The OPRHP has found this method to work [2].
2. Saratoga Mountain Bike should be notified and included in educational meeting and volunteer work to help support suppression and containment efforts.
3. The private property surrounding the access road should be surveyed and treated otherwise containment may be impossible. The JSG is found on the adjacent landing zone for logging.
4. The legislature needs to pass a law for fill to be certified clean when used in ecologically sensitive areas.

Year 2 Notes:

The current infestation should be suppressed over two days with a team of 4-6 people using mechanical methods.

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Section 3: Project Implementation - Year 3- 2020

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
Japanese Stiltgrass (Microstegium vimineum) Tier 3, Very High	6.2 acres	25%	100%	9/14/21	Mechanical/Manual	Left on site

Post Season Report

End-of-Year Summary:

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

N/A

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.

N/A

Year 3 Notes:

Three people were able to treat almost the entire infestation within 3 hours.

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Section 3: Project Implementation - Year 4- 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
Japanese Stiltgrass (Microstegium vimineum) Tier 3, Very High	0.5 miles	20%	Along access road and trailhead, 85%	9/20/21, 9/30/21	Mechanical/Manual	Trash/Left on Site

Post Season Report

End-of-Year Summary:

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

This species was left untreated this year until seeding so there may be less success following treatment this year. This species should be managed in late August to early September before seeding occurs. Native plants including goldenrod, woodland asters, smartweed and New York asters were used to restore the site after removal. There was a discovery of burning bush and common buckthorn increasing in density along the roadside.

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.

Post-treatment monitoring should occur mid-summer to monitor for regrowth. Treatment should be completed in late August to early September before plants have gone to seed. Mulch should be placed around the trailhead as a buffer to reduce the density of stiltgrass, since the population has not been reduced significantly with just manual and mechanical control. Permissions need to be aquired to access the landing zone for logging as well as written permission for the property owner with the driveway off the main access road.

Year 4 Notes:

Treatment should be completed with 3 people and should be planned for a whole day. Native seeds should be purchased as well to help regenerate the site. Surrounding forested area and trails should be surveyed to see if isolated individuals have moved into the forest.

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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	Species Abundance (%)	Treatment Goal (%)	Treatment Window	Treatment Method	Disposal Method
Japanese Stiltgrass (Microstegium vimineum)						

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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