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):

# Phragmites at Lake Bonita in Moreau Lake State Park

## 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*

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

*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* | ***Common Reed Eradication*** |
| *Location* | Moreau Lake State Park/ Bonita Lake 201 Wilton Rd, Corinth, NY 12822 |
| *Latitude Longitude* | 43°12'41.0"N 73°46'09.2"W |
| *Project Manager / Title* | Kristopher Williams CR -PRISM Coordinator |
| *Address* | |
| *Phone* | 518.321.0189 |
| *Email* | Kbw44@cornell.edu |

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

*Lake Bonita (Moreau Lake State Park)*
*This beautiful lake, recently acquired by the park after the closure of Mt. McGregor Correctional Facility, offers pristine Adirondack beauty. The lake contains bog matts and is part of a bird wildlife management area in the Moreau Lake State Park ISPZ. From the parking area off Wilton Mountain Road, a short connector trail takes you to another trail that goes 1.7 miles around the lake. One side contains a picnic table and bench, while the dam on the opposite side. The impoundment is the site of the infestation*

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

Treatment Method: A 500 square foot newly identified infestation of Phragmites was manually removed in relatively pristine habitat. Spade and shovel method was used by a team of 10 where to dissect the earthen material and extract the rhizomes of the common reed. Vegetative material above and below surface removed was carefully bagged. The site was regraded and several tree saplings where transplanted in place of the treatment area. Goldenrod and other native plants where in site in the immediate area. The site will need multiple retreatments to eradicate the plant locally using this lesser management practice. The site is socially valuable and ecologically significant.

- http://nyis.info/invasive_species/common-reed/

*Overall Project Size:* ***500 sq feet***

*SEQR Form Complete? [Add as an Appendix]* ***N/A***

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

*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 ISPZ*** |

*[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?*

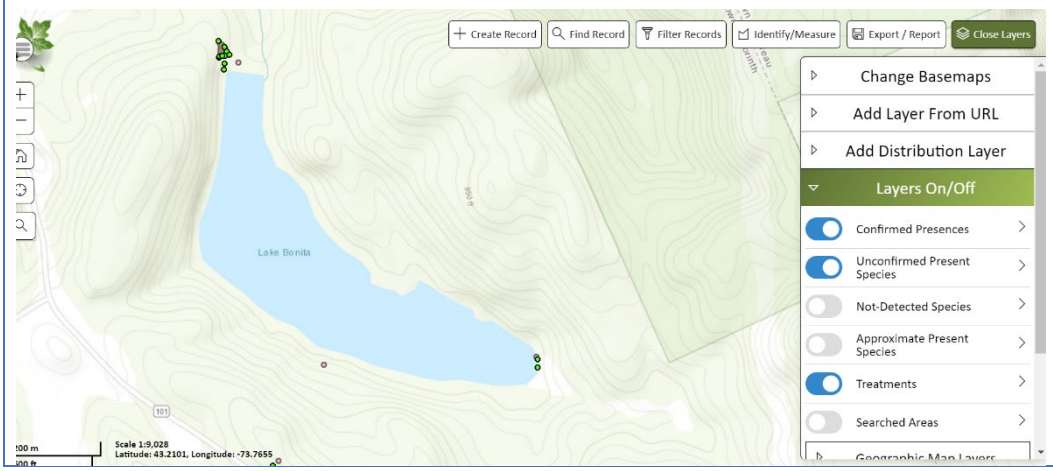
| |
|---|
| ***No*** |

*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.*




## *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.*

| |
|---|
| Manual: Removal with Spades using Rhizomatous Dissections |

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

Vegetative material above and below surface removed was carefully bagged The site will need multiple retreatments to eradicate the plant locally using this lesser management practice. The site is socially valuable and ecologically significant. The Common read was not in seed.

- http://nyis.info/invasive_species/common-reed/

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).*

The site was regraded and several tree saplings where transplanted in place of the treatment area. Goldenrod and other native plants where in site in the immediate area. Plant species should be propagated from the local area and native seed bank should be encourages. Follow up will occur late spring.

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

PRISM and Moreau Lake State Park Staff will evaluate.

.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

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* | | ☐ *Post Treatment Monitoring w/ Removal* | ☐ *Post treatment monitoring and restoration continues* | ☐ *Post treatment monitoring and restoration continues* | ☐ *Post treatment monitoring and restoration continues* |
| *Late Spring* | | *June* 5th 100% Removal above ground 50% Roots | *June 2nd 100%* Removal above ground 50% Roots | ☐ *Re-evaluate successes and failures note in the ISMP* | |
| *Summer* | | *July 9th 100% Removal Above Ground 50% Roots* | *July* Removal above ground 50% Roots | | |
| *Early Autumn* | **Removal 100 above ground and 60 % Root System.** | *August 5th 100% Removal Above Ground 50% Roots* | *August* Removal above ground 100% | | |
| *Late Autumn* | | *Oct. 8th Post treatment monitoring with Reseeding with Native Stock* | *Post treatment monitoring with Reseeding with Native Stock* | | |

*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*

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

## *Section 3: Project Implementation - Year 1 (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* | *Specie Abundance%* | *Target Goal % Cover* | *Treatment Window* | *Treatment Method* | *Disposal Method* |
|---|---|---|---|---|---|---|
| ***Common Reed*** | *500 sq. Feet* | *85%* | *100 Above Ground 30% Below Ground Roots* | *October September ED RR* | *Grubbing and Root Extraction* | *Sanitary Landfill* |

## ***Post Season Report***

End-of-Year Summary:

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

12 55-gallon bags of Common Reed removed in the fall of 2020 with nine participants taking 4 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.*

Continue to cut and pull rhizomatous material.

*Year 1 Notes:*

None but be aggressive in year two

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

## *Section 3: Project Implementation - Year 2 (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* | *Specie Abundance%* | *Target Goal % Cover* | *Treatment Window* | *Treatment Method* | *Disposal Method* |
|---|---|---|---|---|---|---|
| ***Common Reed Tier 4 June*** | *Less Than 500 Sq ft* | *40%* | *100% Above Ground 50 % Below Ground Roots* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |
| ***July*** | *Less Than 300 sq feet* | *20%* | *100% Above Ground 20% Below ground roots* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |
| ***August*** | *Less Than 300 sq feet* | *10%* | *100% Above Ground 50% Roots* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |
| ***October*** | *Less Than 300 sq feet* | *15%* | *100% Above Ground* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |

## ***Post Season Report***

End-of-Year Summary:

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

June 3rd 2021 5 technicians 3 from OPRHP, 1 Friend of Moreau and PRISM Coordinator removed 710 stems in the original infestation with 3 trash bags disposed. Root grubbing and stem removal was completed for the entire 7594 sq feet of the infestation. Native sensitive ferns have dominated the area. Care was taken to not trample the plants.

July 9th 2021 3 technicians 1 lead coordinator PRISM and OPRHP 495 Stems Removed One Bag of Garbage over a smaller area of less than 500 square feet.

August 5th 2021 6 technicians 1 lead coordinator PRISM and OPRHP 475 stems removed over an area of less than 300 square feet

October 8th 2021 2 technicians 1 lead coordinator PRISM and OPRHP 100 stems removed over an area of less than 300 square feet.

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.*

Plan on surface cuttings in the later part of the year only. Continue with root mass until to small to observe.

*Year 2 Notes:*

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

## *Section 3: Project Implementation - Year 3 (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* | *Specie Abundance%* | *Target Goal % Cover* | *Treatment Window* | *Treatment Method* | *Disposal Method* |
|---|---|---|---|---|---|---|
| ***Common Reed Tier 4 June*** | *Less Than 300 Sq ft* | *20%* | *100% Above Ground 50 % Below Ground Roots* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |
| ***August*** | *Less Than 300 Sq ft* | *20%* | *100% Above Ground 50 % Below Ground Roots* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |
| ***October*** | *Less Than 300 sq ft* | *10%* | *100% Above Ground 50 % Below Ground Roots* | *June - September* | *Grubbing with Spades* | *Sanitary Landfill* |

## ***Post Season Report***

End-of-Year Summary:

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

June 2nd 2022- 3 PRISM staff and 1 OPRHP staff member removed 35 stems from the infestation. Native ferns and native species are dominating this area
August 11th 2022- 4 PRISM staff and 2 OPRHP staff members removed 105 stems from the infestation. This is due to missing the treatment in July. Treatment must be consistent to ensure complete eradication.
October 4th, 2022- 3 PRISM staff removed 27 stems from the infestation. The biomass of the stems re-growing is getting so small they look like grass poking up. Some rhizome shoots were removed as well in the process. One single plant of Japanese stiltgrass was discovered. Reported in iMap.

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 treat this area with the same methods but be consistent.

*Year 3 Notes:*

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

## *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* | *Specie Abundance%* | *Target Goal % Cover* | *Treatment Window* | *Treatment Method* | *Disposal Method* |
|---|---|---|---|---|---|---|
| June 2nd | *Less Than 200 sq feet* | *15%* | *100% Above Ground* | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

## ***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:*

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

## *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* | *Specie Abundance%* | *Target Goal % Cover* | *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:*

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.

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

NEW YORK STATE OF OPPORTUNITY
Department of Environmental Conservation

The New York State Department of Environmental Conservation provides financial support to The Capital Region PRISM via the Environmental Protection Fund.