Non-native invasive plant (NNIP) herbicide treatments (phragmites and swallowwort) on Cumming Nature Center property.

Located 40 miles southeast of Rochester, NY, CNC is one of the largest publicly accessible interpretive facilities in the Finger Lakes region. The 15 miles of thematic trails across 900 acres of forests and wetlands provide the background for public and school-based exhibits and educational programming which explore the complex relationship between humans and the natural world. The programs are designed to inspire innovative and creative thinking among participants and provide the tools, knowledge, and confidence to take action in the face of local, regional, and global challenges. More than 13,000 visitors a year visit to enjoy hiking, bird watching, snowshoeing, cross country skiing, trail running, citizen science, and nature play.

The project site contains an exceptionally wide variety of flora which gives it unusual depth with respect to nature education with sensitive wetland areas, deciduous upland forests, and planted evergreen monoculture forests. The NYS Natural Heritage Program has observed Rare (spreading globeflower), Threatened (green gentian), and Endangered (Hooker's orchid) plants and two significant animal species (coal skink and spiny softshell turtle) in the Honeoye Lake watershed.

Mapping of the trails during the summer of 2018 has revealed two problematic NNIP in locations that suitable for removal using herbicide. Phragmites is in several small patches in relatively close proximity to each other and pale swallowwort in a larger patch on either side of the trail. Information about each infestation, including site maps are below.

Contract specifications:

A contractor is sought to treat phragmites in a sensitive wetland area across four locations along the trails in Cumming Nature Center. Total acreage of the phragmites is 2.58. Swallowwort is located in one area along the CNC trails. Total acreage of swallowwort is 1.25.

The method of treatment for phragmites will include a cut and drop method with an herbicide that can be used in a wetland area. NOTE: staff at the nature center will work in tandem with the herbicide applicator to cut the phrag ahead of the treatment to increase effectiveness of treatment and reduce overall cost. The swallowwort should be treated with a foliar spot spraying by hand. The preferred herbicides to be used would be either Accord, Accord Concentrate, or Rodeo. Rodeo lists all species to be treated either on the herbicide specimen label or on a 2ee permit in New York; Accord (or Accord Concentrate) would be acceptable only if the contractor knows of or can obtain suitable 2ee permits. All species should be treated during full leaf-out, at whatever time would provide most effective control. All treatments should be reported to the CNC in a spreadsheet, in addition to being reported to the state of New York, as required by law.

Required Mitigation measures:

a. All applicators will be appropriately licensed through the NYS DEC.
b. All herbicide use will be in keeping with directions on the specimen label, and State and federal laws.
c. Notices of herbicide use and safe entry times will be posted at all sites of herbicide use; sign content will be in keeping with label directions.

d. Weather forecasts and current conditions, including wind speed, will be obtained prior to treatment, and used to determine whether or not to proceed, based on specimen label precautions.
e. Applicators will wear personal protective equipment as listed on each herbicide specimen label.
f. Storage, disposal, and cleaning of equipment will be in compliance with specimen label directions.
g. Temporary closures of trails and recreation sites may be used to further reduce public hazards associated with herbicide treatments. Temporary closures shall be posted at sites and along trails at least one week prior to treatment activities. The duration of closures shall be in keeping with the product's specimen label directions. Contractor will provide adequate notification, once a task order is awarded.

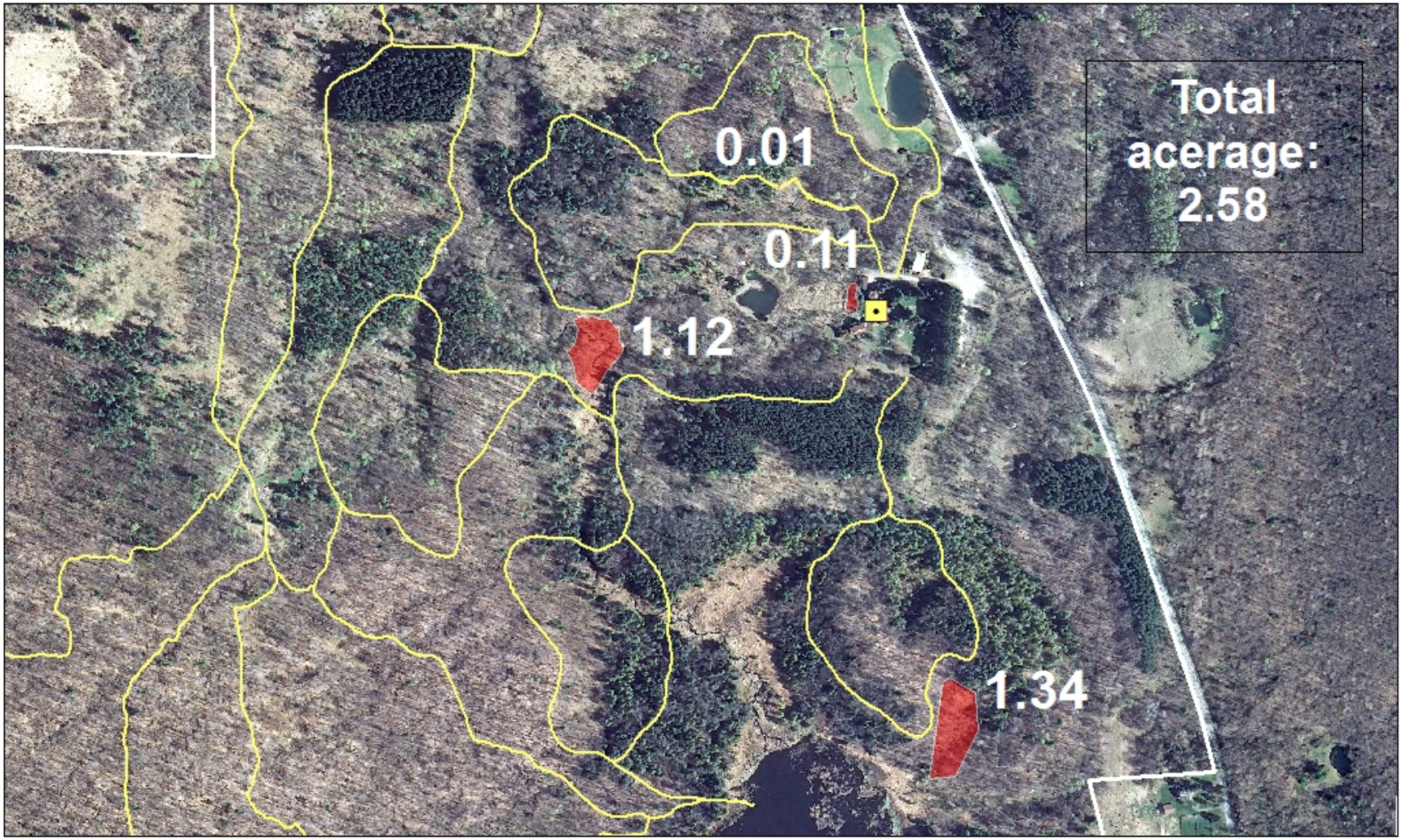
2. To avoid private property:
    a. Treat areas only indicated on the map, which are on CNC property
3. To ensure the correct plant species are treated, field personnel involved in invasive plant control shall be trained to distinguish target vegetation.
4. To prevent the spread of NNIP, equipment used to implement invasive plant control should be inspected for NNIP seeds or other plant propagules and cleaned to the extent feasible prior to coming onto CNC land and after completing treatment.
5. To protect soils/wetlands/water/aquatic resources:
    a. If treatment is likely to result in bare soils, contractor will notify CNC staff that revegetation is needed, but is not responsible for revegetation.
    b. Fueling or oiling of mechanical equipment and pouring of herbicides from one container to another would be done outside the Protective Strip (see table below).
    c. The use of wheeled or tracked vehicles would be located and timed so that the soils are sufficiently dry to minimize soil compaction.
    d. When choosing a surfactant to use with an herbicide, do NOT use R-11 (Wilbur-Ellis Co.), which has been found to be relatively toxic.
    e. Use of a surfactant with glyphosate should be restricted to those surfactants understood to be the least toxic, based on the experience and best judgment of the applicator.
    f. Use only the less toxic formulations of glyphosate (e.g., Rodeo®, Accord®). Less toxic formulations are those that require the addition of surfactants.
    g. Limit the use of glyphosate in wetland settings to 1.25 pounds acid equivalent per acre.
    h. Chemical treatments would be restricted to registered aquatic formulations of herbicides to protect water quality and aquatic organisms in the following locations:
        i. On soils with poor drainage, or while a perched water table is present
        ii. Within the Protective Strips of streams, seasonal pools, ponds, and wetlands (see table below)
        iii. Adjacent to road ditch lines that are hydrologically connected to aquatic resources via surface flow.

Protective Strip Width Guide	
% Slope of land between disturbed area and water source	Width of protective strip between disturbed area and water source (ft.)[1]
0-10	50

Protective Strip Width Guide	
11-20	70
21-30	90
31-40	110
[1] Add 20 feet for each additional 10% side slope	

6. Public notices shall be posted along trails and recreation sites treated with herbicides to inform the public about potential contact with herbicides. The length of time that notices remain posted shall be in keeping with directions on the product's specimen label.
7. To avoid conflict with recreational use of trails, treatment is strongly preferred on weekdays. In extenuating circumstances, permission to treat on weekends may be possible, but only if approved by the CNC staff.
8. To limit improper use of wheeled or tracked motorized vehicles on trails, they shall be used for NNIP control only where they can be most effective, will be coordinated with recreation staff to ensure trail infrastructure and recreation resources will not be irreparably harmed, and shall require carrying a written authorization permitting use from CNC staff.

Phragmities australis at Cumming Nature Center, Honeoye NY



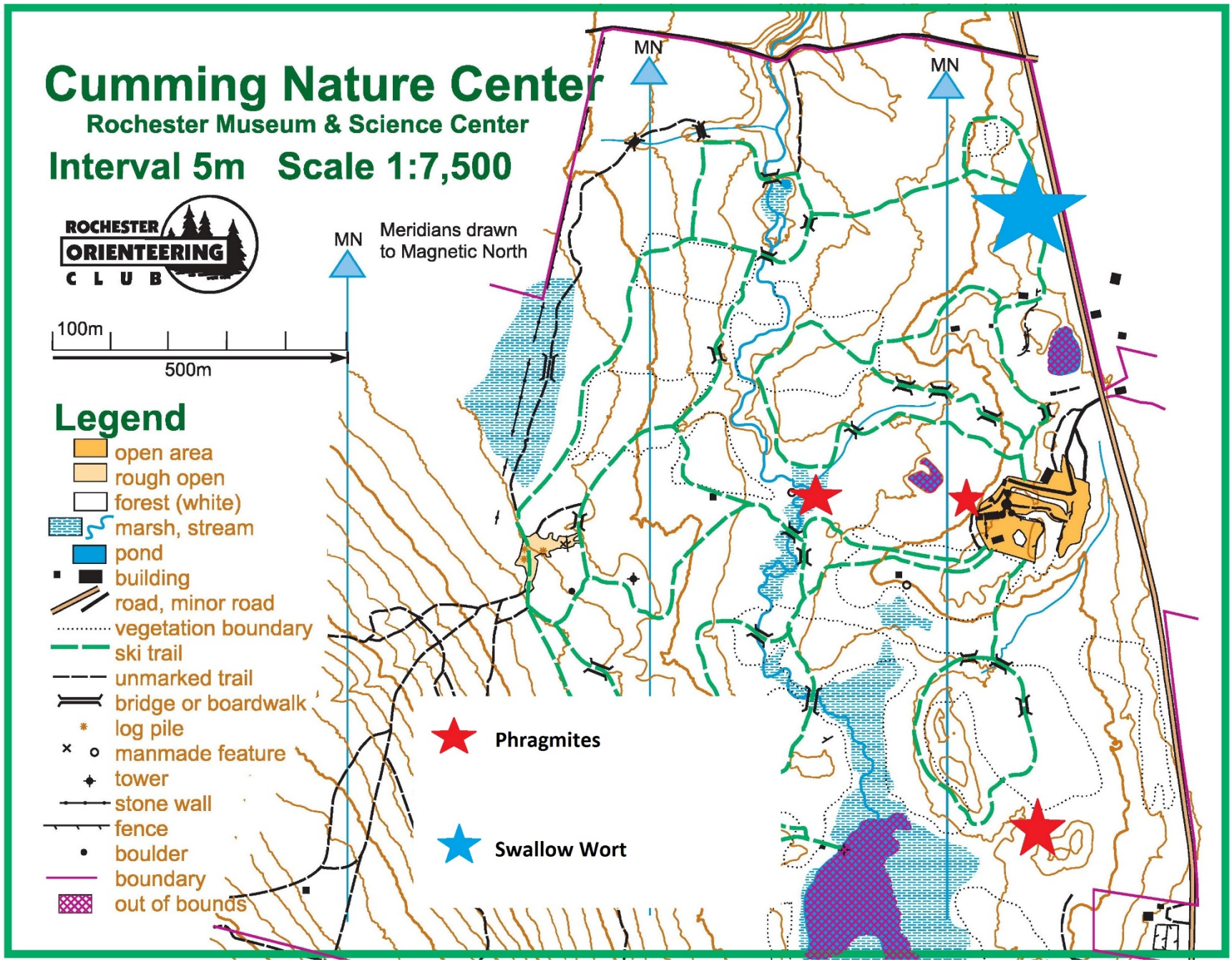
N

340170 0 340 Feet

Legend

Boundary | Visitor Building | Trails | P. australis

Cynanchum rossicum at Cumming Nature Center, Honeoye, NY


Cumming Nature Center
Rochester Museum & Science Center
Interval 5m Scale 1:7,500
ROCHESTER ORIENTEERING CLUB
MN
Meridians drawn to Magnetic North
100m
500m
Legend
open area
rough open
forest (white)
marsh, stream
pond
building
road, minor road
vegetation boundary
ski trail
unmarked trail
bridge or boardwalk
log pile
manmade feature
tower
stone wall
fence
boulder
boundary
out of bounds
Phragmites
Swallow Wort