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

Cornell Cooperative Extension Saratoga County
50 West High St.
Ballston Spa, NY 12020

Capital Region PRISM Survey Report: Forest Pests Winter 2023-2024

Purpose:

The Invasive Species Survey Report will provide an overview and help guide invasive species treatments, baseline site composition, post-monitoring, and restoration at a specific site over time. A single survey report should not be written for an entire site, but a specific project. A site could have multiple reports. If there are multiple reports within a site, consultwith the Capital Region PRISM about potentially preparing a more robust survey report.

To be submitted toCapitalRegionPRISMfollowing thecompletionofpartner,individual,orPRISM-ledsurvey for review. This formcanbe found online as "FieldSurveyReportTemplate" at https://www.capitalregionprism.org or with a request. Please consult the Capital Region PRISM if there are any questions at (518)-885-8995. Please capture and collect data using iMapInvasives. The online software platform and associated mobile application are free and open sourced.

Section 1: Survey Summary

This section provides an overview of the site, contact information, etc. Once complete, save your report and submit the form via email to a member of the Capital Region PRISM team. Feel free to include supporting documents in your submission.

To determine site value, we recommend using the iMap Invasives Prioritization Model which can be found on the PRISM Prioritization webpage. The prioritization model will allow you to assess your sites ecologic value based on a few factors. Evaluate the comprehensive score or the ecological score to determine if your site is a high priority site that will help us determine if the location and infestation falls into our priority objectives for future management. If it is not a high priority site, we still encourage you to complete invasive species surveying as the site maybe culturally and socially of value to the public.

Section 2: Survey Result Summary

The survey summary section will contain the tables and maps generated from your survey efforts. Thebiological surveys will assist the Capital Region PRISM in our efforts to identify emerging species to be able to more effectively manage infestations and the spread of populations. Please fill out the provided table and insert screen shots of iMap Invasives maps.

Section 3: Summary of Recommendations

The recommendation section contains treatment calendars and post-season summaries. Most sites need to be revisited annually to documentsuccesses/failures, identify any changes needed, and update future treatment calendars.

NEW YORK STATE 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

Section 1: Survey Summary

***Multiple Surveys at Multiple Locations in this report

Survey Dates: 10/10/23-3/28/24
Survey Leaders: Sam Schultz (ss986@cornell.edu) and/or Kris Williams (kbw44@cornell.edu)
iMapInvasives ID: Sam Schultz- 9924; Kris Williams- 9274

Point of Contact: Nick Dietschler
NYS Hemlock Initiative, Cornell University

Justification: These areas were surveyed based on areas with a lack of surveys, high comprehensive/ecological score, or partner requests. The New York Hemlock Initiative also requested the PRISM identify areas that would be viable for biocontrol release sites.

Locations Surveyed:

Columbia County:
- Beebe Hill State Forest
- Hand Hollow State Forest
- Lake Taghkanic State Park
- Taconic State Park: Copake Falls Area

Fulton County:
- Rockwood State Forest

Rensselaer County:
- Albert Family Community Forest
- Berlin State Forest
- Cherry Plain State Park
- Dyken Pond
- Grafton Lakes State Park
- Ingalls Preserve
- Taconic Ridge State Forest

Saratoga County:
- Daniel's Rd State Forest
- Henning Preserve
- Moreau Lake State Park
- Spruce Mountain (DEC Property)

Schenectady County:
- Plotterkill Preserve

Warren County:
- Butler Pond Reservoir/Halfway Brook Reservoir Trail/Nicholson Preserve (Queensbury Land Conservancy)
- Lake George Wild Forest
- Ralph Rd State Forest

Washington County:
- Goose Egg State Forest
- Eldridge Swamp State Forest
- Mt Tom State Forest

Biocontrol Release Candidates:
- Albert Family Community Forest- Rensselaer County
- Plotterkill Preserve- Schenectady County

Consultation Sites for Treatment:
- Albert Family Community Forest- Rensselaer County
- Ingalls Preserve- Rensselaer County
- Plotterkill Preserve- Schenectady County

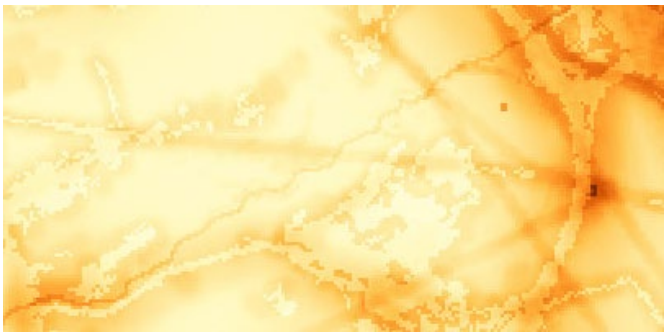
Survey Techniques: Provide a clear and concise description of the work to be conducted, target species, and any survey methods used (i.e. Highly probable area search, rake toss, transect, etc.).

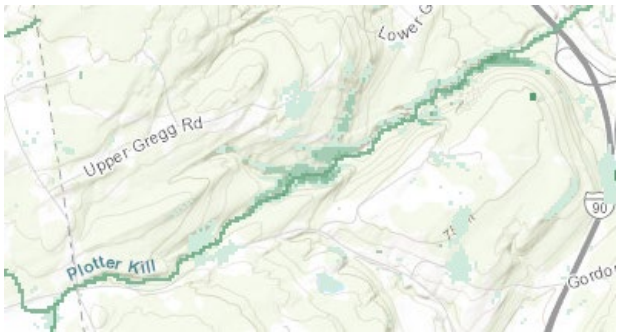
A combination of trailside forest pest surveys and surveying known forest stands that are vulnerable to invasive forest pests were used. For trailside surveys, trees every 50 feet as far as 40 feet in each direction away from the trail were checked depending on vulnerable tree species stand locations and densities. Some areas were surveyed off trail based on maps provided by the ArcGIS Online database or partners.

- Hemlock Woolly Adelgid (*Adelges tsugae*)
- Beech Leaf Disease (*Litylenchus crenatae mccannii)*
- Southern Pine Beetle (*Dendroctonus frontalis*)
- Spongy Moth (*Lymantria dispar*)

Section 2: Survey Result Summary

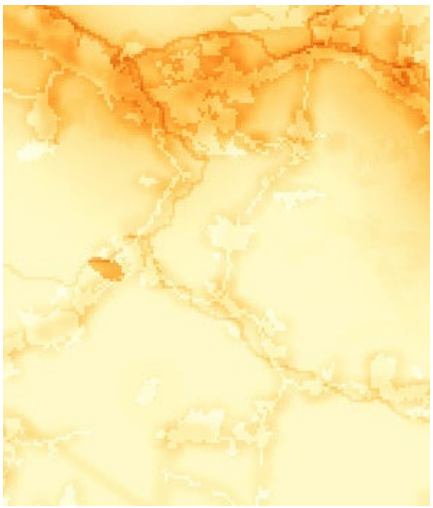
- **Plotterkill Preserve**- Schenectady County
  Searched Area # 1383950
  Species Surveyed for: HWA
  Detected? Yes





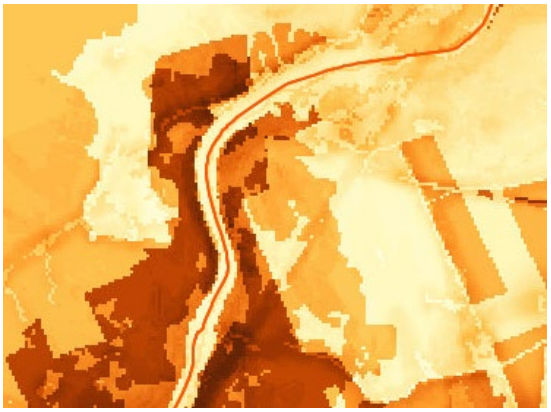
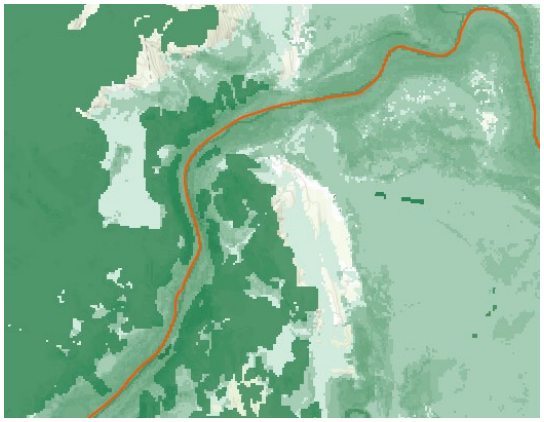
Follow-up Treatment/Monitoring? Following biocontrol release, post-release monitoring will occur in 2-3 years. Additionally, the SCISC is exploring funding options for treatment in the late spring.
Natural Community Type: Hemlock-hardwood forest
Forest Type/Composition: hemlock dominated forest
Overall Tree Health: Moderate
Native Vegetation Distribution: Subdominant
Other Stressors? Spongy moths defoliated much of the area in the upper gorge in the last few years (2020-2022).
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Hand Hollow State Forest**- Columbia County
  Searched Area # 1362925
  Species Surveyed for: HWA, BLD, EHS
  Detected? HWA present, no BLD Detected



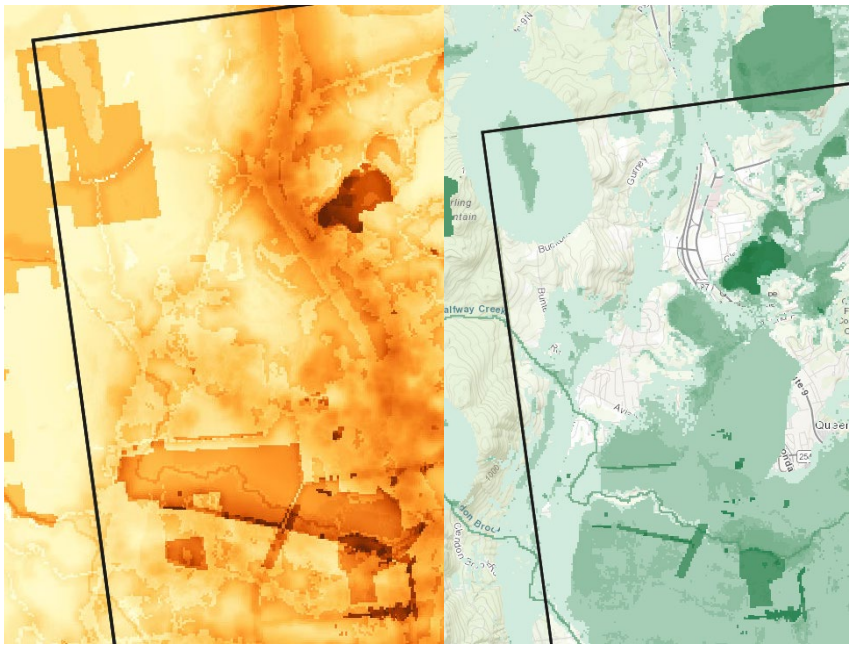
Follow-up Treatment/Monitoring? Follow-up monitoring should be conducted for beech leaf disease in this area but most hemlock
Natural Community Type: Beech-hemlock forest
Forest Type/Composition: Beech, hemlock, ash, some pine, maple and red oak
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant, some invasives present
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Moreau Lake State Park- Baker Trail & Porcupine Run Trail Area**- Saratoga County
  Searched Area # 1384000
  Species Surveyed for: HWA
  Detected? Yes

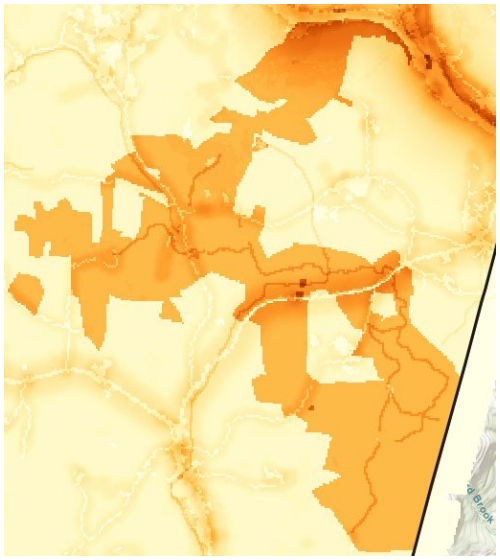
Follow-up Treatment/Monitoring? CR-PRISM staff will continue to collaborate with the OPRHP on detection and monitoring surveys throughout Moreau Lake State Park. OPRHP is discussing treatment options as more HWA is detected on park properties.
Natural Community Type: Hemlock-Northern hardwood forest
Forest Type/Composition: Hemlock dominant
Overall Tree Health: Healthy, >90% tree canopy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

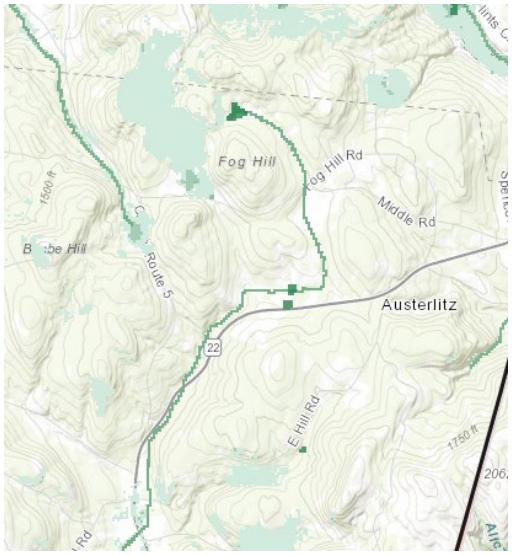
- **Butler Pond Reservoir/Halfway Brook Reservoir Trail/Nicholson Preserve**- Warren County
  Searched Area # 1389831
  Species Surveyed for: SPB, HWA, BLD
  Detected? No SPB or HWA. BLD was detected at Butler Pond Reservoir.



Follow-up Treatment/Monitoring? Continued detection and monitoring surveys will be conducted by the CR-PRISM staff this winter in collaboration with staff from the Warren County Soil and Water Conservation District.
Natural Community Type: Hemlock-hardwood forest at Halfway brook
Forest Type/Composition: Butler Pond was dominated by beech and some pine and oak; Nicholson Preserve was predominantly pine forest
Overall Tree Health: Healthy at all sites
Native Vegetation Distribution: Dominant at all sites
Other Stressors? Spongy moth damage, some damage from recent logging events at Butler Pond Reservoir
Presence of Low Branches: Yes
Presence of Regeneration: Yes

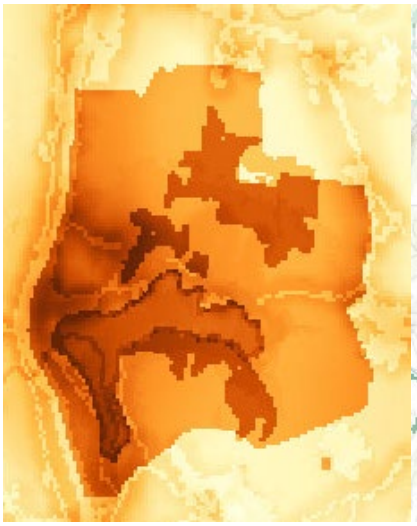
- **Beebe Hill State Forest**- Columbia County
  Searched Area # 1390587
  Species Surveyed for: HWA, BLD
  Detected? No BLD or HWA detected

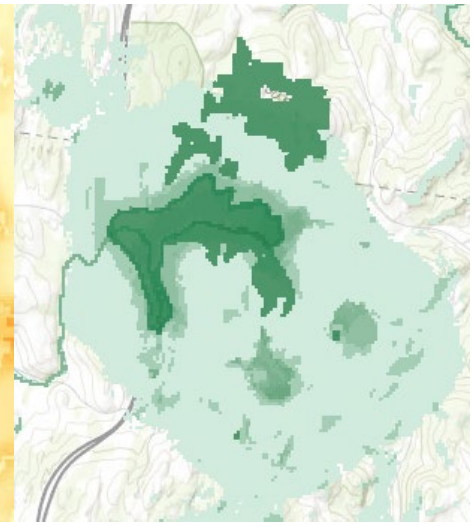




Follow-up Treatment/Monitoring? Follow-up monitoring is recommended for BLD, lower priority site for HWA surveys due to low amount of hemlock present
Natural Community Type: Beech-Maple Forest
Forest Type/Composition: Dominant beech forest, small hemlock stands throughout
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

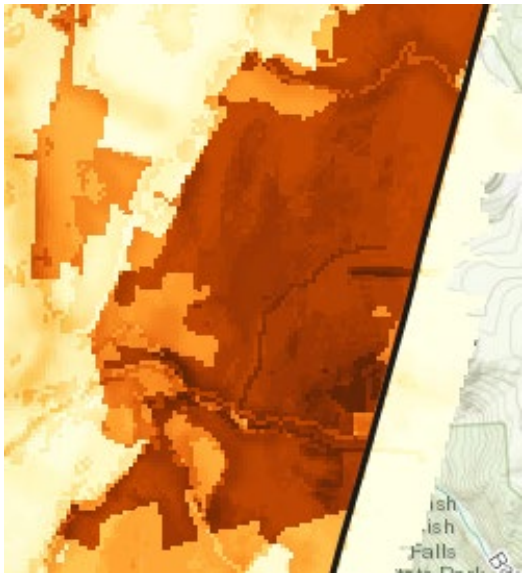
- **Lake Taghkanic State Park**- Columbia County
  Searched Area # 1390551
  Species Surveyed for: HWA
  Detected? Yes

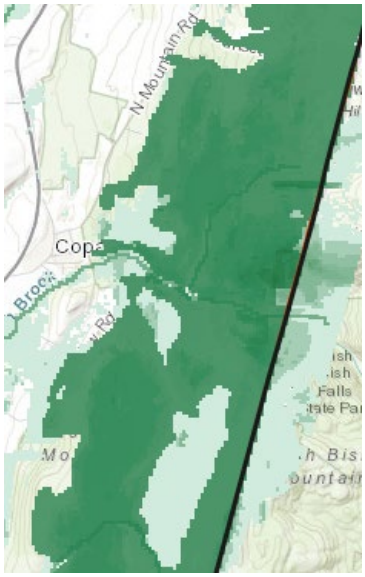




Follow-up Treatment/Monitoring? This area seems to be ecologically significant, but hemlocks are not healthy here at all.
Natural Community Type: Hemlock-hardwood Forest
Forest Type/Composition: Predominantly hemlock
Overall Tree Health: Significant decline, most trees are nearly dead
Native Vegetation Distribution: Dominant in forest understory, subdominant throughout much of the state park
Other Stressors? Spongy moth egg casings
Presence of Low Branches: Yes
Presence of Regeneration: Some, mostly oaks

- **Taconic State Park: Copake Falls Area**- Columbia County
  Searched Area # 1390530
  Species Surveyed for: HWA, EHS
  Detected? Yes

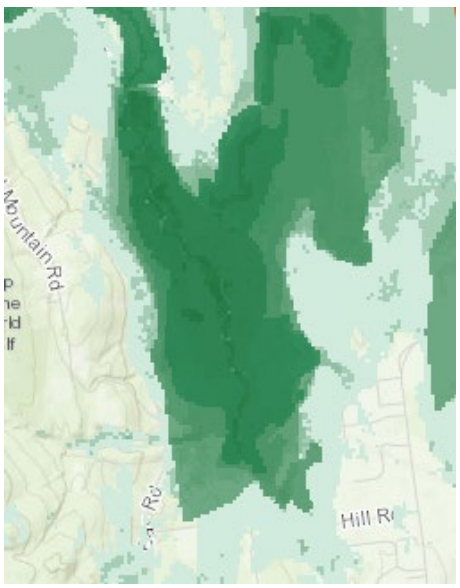




Follow-up Treatment/Monitoring? CR-PRISM should explore project collaboration opportunities with NYS OPRHP in this area due to the high comprehensive score and ecological significance of area. Many hemlocks within the Bish Bash Falls area have been treated and those that have not are in significant decline and it is likely too late for treatment.
Natural Community Type: Pine plantation within campground area, Bish Bash Falls is hemlock-hardwood forest.

Forest Type/Composition: White pine within campground area
Overall Tree Health: Significant decline in non-treated trees.
Native Vegetation Distribution: Dominant
Other Stressors? High traffic area through trails
Presence of Low Branches: On treated trees primarily
Presence of Regeneration: No

- **Adirondack Forest Preserve- Lake George Wild Forest**- Warren County
  Searched Area # 1391023
  Species Surveyed for: Hemlock Woolly Adelgid
  Detected? No HWA



Follow-up Treatment/Monitoring? Recommended for follow-up monitoring due to proximity to the blue line and limited public access
Natural Community Type: Marsh headwater stream
Forest Type/Composition: Hemlock, Cedar
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

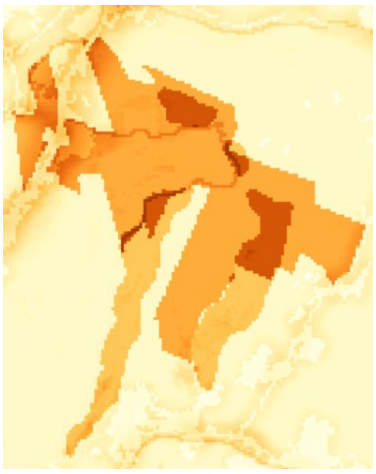
- **Ralph Rd State Forest**- Warren County
  Searched Area # 1390594
  Species Surveyed for: Hemlock Woolly Adelgid
  Detected? No HWA


Follow-up Treatment/Monitoring?
Natural Community Type: Hemlock hardwood swamp and Hemlock-Northern Hardwood Forest
Forest Type/Composition: Hemlock-Northern Hardwood Forest
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration:

- **Mt Tom State Forest**- Washington County
  Searched Area # 1391087
  Species Surveyed for: Hemlock woolly adelgid
  Detected? No

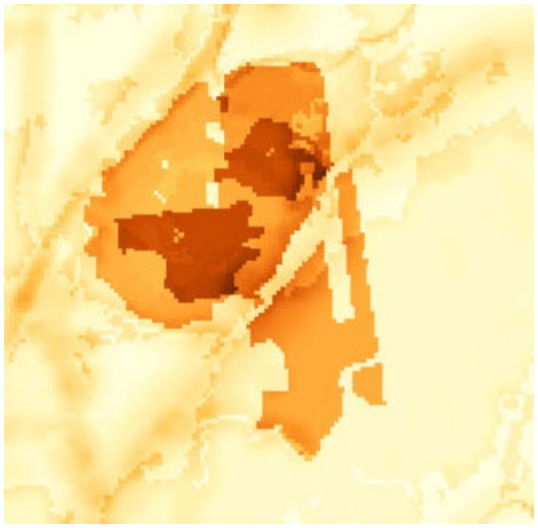

Follow-up Treatment/Monitoring? This site is recommended for follow-up monitoring for forest pests due to the dense hemlock stand on a bi or tri annual basis.
Natural Community Type: None listed
Forest Type/Composition: Hemlock, ash, beech, shagbark hickory
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Goose Egg State Forest**- Washington County
  Searched Area # 1391015
  Species Surveyed for: Hemlock woolly adelgid
  Detected? No



Follow-up Treatment/Monitoring? Goose Egg State Forest is recommended for follow-up monitoring. Battenkill State Forest does not have significant habitat and therefore is lower priority.
Natural Community Type: Chestnut oak forest
Forest Type/Composition: Meadow at edge of the forest as well as retired agricultural land
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Eldridge Swamp State Forest**- Washington County
  Searched Area # 1391088
  Species Surveyed for: Hemlock woolly adelgid
  Detected? No

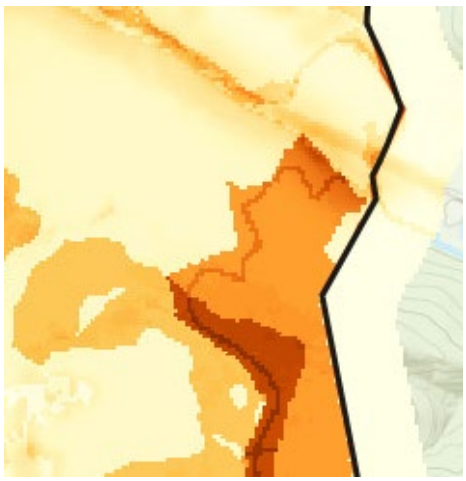


Follow-up Treatment/Monitoring? This site is recommended for follow-up monitoring in the summer of 2024. Relatively pristine forest, it would be interesting to determine what herbaceous species are present. Possibility of unique species present in this unique ecosystem.
Natural Community Type: Red maple-hardwood swamp, Spruce-fir swamp, Shrub swamp, Marsh headwater stream
Forest Type/Composition: Variety of oaks, possible old growth hemlock, ash
Overall Tree Health: Healthy
Native Vegetation Distribution: Dominant, very few invasive species present
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Dyken Pond**- Rensselaer County
  Searched Area # 1391083
  Species Surveyed for: Hemlock woolly adelgid
  Detected? No

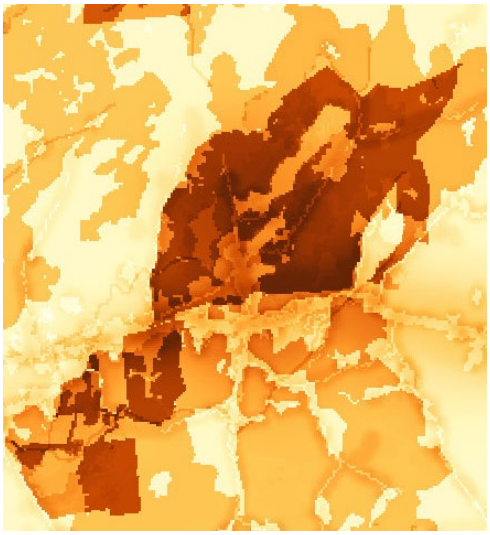
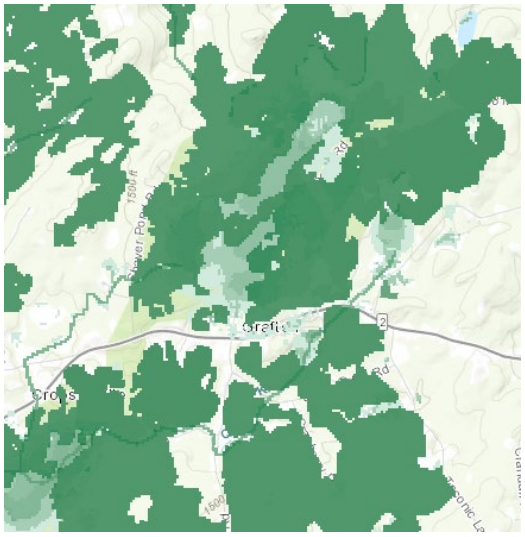

  Follow-up Treatment/Monitoring? Lots of hemlock in the area visited, recommended for follow up monitoring.
  Natural Community Type: Hemlock-northern hardwood forest, Beech-maple mesic forest
  Forest Type/Composition: Forested areas predominantly beech, oak, significant amounts of hemlock on other side of the street from parking area. Small hemlock grove on trail
  Overall Tree Health: Healthy
  Native Vegetation Distribution: Dominant
  Other Stressors? No
  Presence of Low Branches: Yes
  Presence of Regeneration: Yes

- **Taconic Ridge State Forest**- Rensselaer County
  Searched Area # 1391084
  Species Surveyed for: Hemlock woolly adelgid, elongate hemlock scale
  Detected? No HWA, Yes elongate hemlock scale




  Follow-up Treatment/Monitoring? A lot of beech recommended for follow up monitoring but many invasives present and not as valuable.
  Natural Community Type: Beech-maple mesic forest
  Forest Type/Composition: White ash/white pine/eastern hemlock
  Overall Tree Health: Healthy
  Native Vegetation Distribution: Subdominant in northern area.
  Other Stressors? Many invasive species present at parking area and along trailside (barberry, honeysuckle, multiflora rose, bittersweet, and EHS on hemlocks)
  Presence of Low Branches: Yes
  Presence of Regeneration: Yes

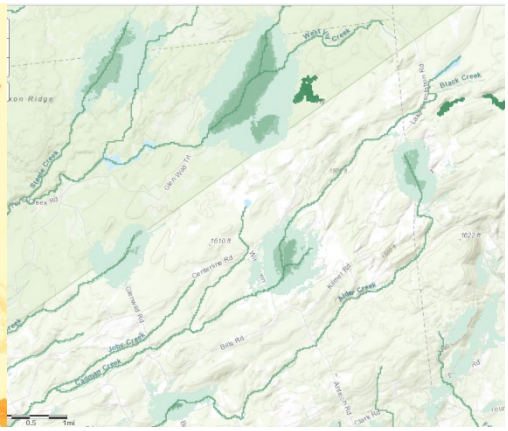
- **Grafton State Park**- Rensselaer County
  Searched Area # 1391081
  Species Surveyed for: Hemlock Woolly Adelgid
  Detected? No

Follow-up Treatment/Monitoring? Continue to collaborate with OPRHP for an annual detection & monitoring survey at this location.
Natural Community Type: Beech-Maple Mesic Forest, Spruce-northern hardwood forest, Hemlock-northern hardwood forest
Forest Type/Composition: Hemlock-northern hardwood forest
Healthy

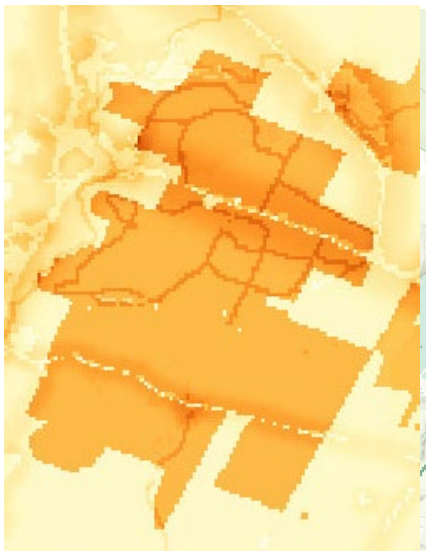
Overall Tree Health:
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Henning Preserve (Saratoga PLAN)-** Saratoga County
  Searched Area # See iMapInvasives and Saratoga PLAN (39 acres)
  Species Surveyed for: HWA
  Detected? No

Follow-up Treatment/Monitoring? CR-PRISM staff will continue to collaborate with the Saratoga PLAN on detection and monitoring surveys throughout PLAN properties prioritizing sites based on location to Adirondack Blue Line and significant habitat. There are significant parcels in the vicinity and a value for connectivity exist but is not reflected in the NYNHP Prioritization Model.
Natural Community Type: Hemlock-Northern Hardwood Forest with a diverse composition of other hardwoods and softwoods.
Forest Type/Composition: Hemlock dominant (overstory/understory)
Overall Tree Health: Healthy, >85% tree canopy
Native Vegetation Distribution: Dominant
Other Stressors? No
Presence of Low Branches: Yes
Presence of Regeneration: Yes

- **Rockwood State Forest**- Fulton County
  Searched Area # 1423102, 1423103
  Species Surveyed for: Hemlock Woolly Adelgid
  Detected? No




Follow-up Treatment/Monitoring? Continue to monitor this site regularly, lack of HWA is likely due to dieback from cold weather. There is significant decline of the hemlock trees off the logging road on the northern side of the forest. The trees down by Rockwood Lake are much healthier but some have been treated.
Natural Community Type: Hemlock-hardwood forest
Forest Type/Composition: Hemlock, Beech, Ash, Maple, hemlock dominant by the lake
Overall Tree Health: Trees are moderately healthy by the lake, trees along the logging road are significantly more in decline.
Native Vegetation Distribution: Dominant
Other Stressors? Deer
Presence of Low Branches: Some, loss of low branches off of logging road due to dieback, more low branches along lake.
Presence of Regeneration: Some saplings observed close to the lake, not a lot of regeneration off the logging road. All understory growth has evidence of deer browsing.

- **Daniel's Rd State Forest**- Saratoga County
  Searched Area # 1422620
  Species Surveyed for: Hemlock Woolly Adelgid
  Detected? No


Follow-up Treatment/Monitoring? Continue to monitor this area, Daniel's Rd has many wetland complexes that increase its ecological significance and make it a highly probable area for HWA to establish. HWA was detected along the main trail at the first wetland complex in the state forest in summer of 2023. Difficult to access wetland areas due to recent flooding so survey was focused on upland areas.
Natural Community Type: Shallow emergent marsh, Red maple-hardwood swamp
Forest Type/Composition: Hemlock hardwood forest
Overall Tree Health: Moderate
Native Vegetation Distribution: Dominant
Other Stressors? Spongy moth damage is very visible
Presence of Low Branches: Yes
Presence of Regeneration: Some

- **Spruce Mountain**- Saratoga County
  Searched Area # 1425809
  Species Surveyed for: HWA
  Detected? No

Follow-up Treatment/Monitoring? These hemlocks seem to be primarily understory hemlocks
Natural Community Type: Hemlock-hardwood forest
Forest Type/ Composition: Hemlock dominant
Overall Tree Health: Moderate
Native Vegetation Distribution: Dominant
Other Stressors? Evidence of past spongy moth damage, deer presence
Presence of Low Branches: Some but not many
Presence of Regeneration: Limited regeneration