

Robert G. Wehle State Park:

What do you do when
you're awash in a sea of
swallow-wort?

NYS Office of Parks, Recreation, and Historic Preservation

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Northeast Natural History Conference

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Pale Swallow-wort

- *Cynanchum rossicum*
 - Non-native invasive
 - Milkweed family
 - Twining vine
 - Thousands of feathery seeds



Pale Swallow-wort

- *Cynanchum rossicum*
 - Densely growing
 - Dense root system
 - Allelopathic



Swallow-wort range

The screenshot displays the 'New York Invasive Species Map' interface. The browser window shows the URL <http://imapinvasives.org/nyimi/map/>. The page header includes the 'iMapInvasives' logo and the title 'New York Invasive Species Map'. A user is logged in as 'casholworth_level_1'. Navigation links for 'Instructions', 'Generate Reports', 'Data Entry', and 'Links' are visible. The map interface includes a 'Zoom | Query | Layers' menu and a toolbar with search, pan, and zoom icons. The map shows the state of New York with various towns and roads. A legend on the left lists layers such as 'Watershed (HUC 8)', 'USGS 7.5' Quad Index', 'Rare Plants', 'Towns', 'ISPZ', 'NYS DOT', 'NYS DEC', 'NYS OPRHP', 'Regional Planning', and 'Public Access Lands'. Under 'Invasive Species', there are checkboxes for 'Invasives / Partner Data', 'Confirmed iMap Data', 'Confirmed NAS Data', 'CAPS Data', and 'NAS Data'. Under 'Invasive Species - Analysis', there is a checkbox for 'Clustered Data'. The map shows several purple dots and red triangles, representing the range of Swallow-wort. An inset map in the bottom right corner shows the location of New York within the Eastern United States. The Windows taskbar at the bottom shows the time as 10:06 PM and the system tray with various icons.

Robert G. Wehle SP

- 1,067 acres
- Former military rifle range
- Former summer home for Mr. Wehle
- Sold to NYS in 1990
- Robert G. Wehle SP created in 2004
 - Upscale cottage rental
 - 3 miles of shoreline
 - Tennis court
 - 16 miles of trails



Invaded Landscape



Invaded Landscape



Invaded Landscape



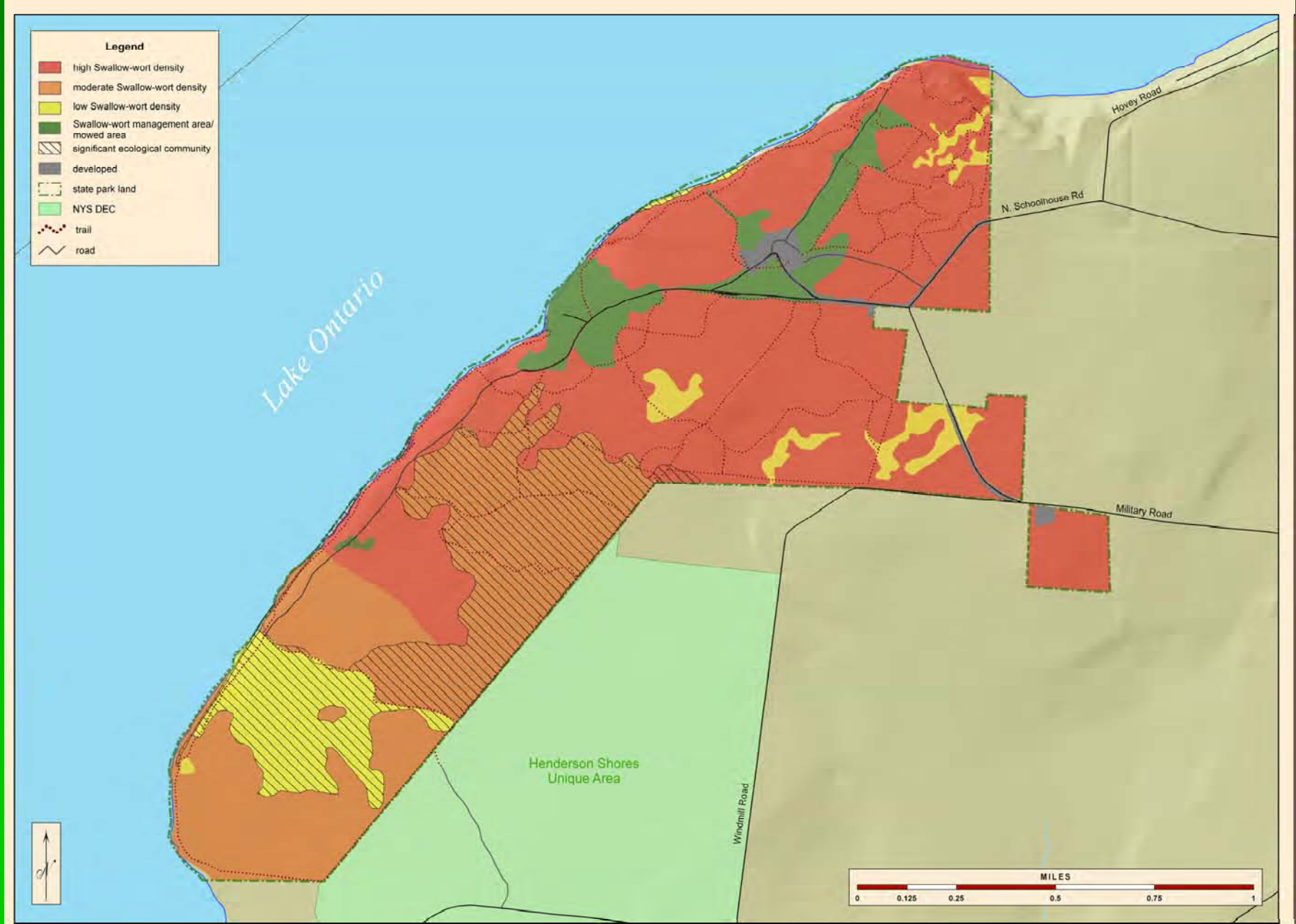
Invaded Landscape



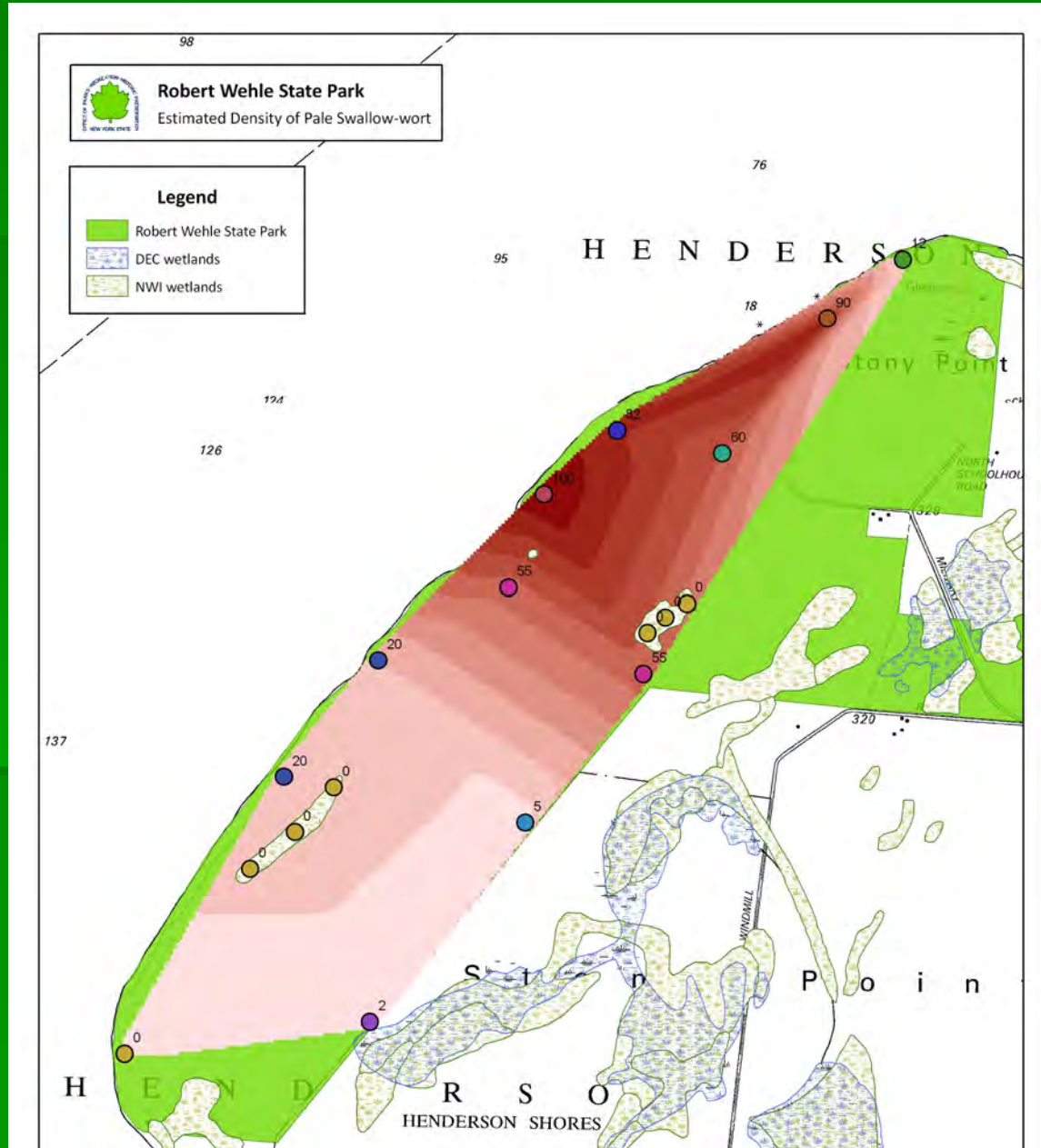
Alvar – Globally Rare



Anecdotally Estimated Swallow-wort Density



Swallow-wort Density GIS Contour Estimate



Interpretation/Education

- Pale swallow-wort signage at most trailheads
- Informative but not very engaging
- Updates coming

SWALLOW-WORT SPREAD THE WORD...

Mature Seed Pods turn brown and split open in late summer and release thousands of wind borne seeds.

Swallow-wort is a very aggressive non-native plant that destroys wildlife habitat. Toxic chemicals in the plant make it unusable by deer and other wildlife.



Seed

Forms a tangled mass or twines on shrubs and trees

Leaves 2.5"-4.5" long. Opposite on stem, glossy green.



Immature Seed Pods Shiny green, smooth, slender and pointed.



Flower 3x

Leaves turn yellow later in season.



Growth Habit A vine that grows upright and twines, 2' - 6' or 8' in height.

- ★ Stay out of swallow-wort areas when seed pods are mature.
- ★ Clean boots, ATVs, and other gear when leaving infested areas.
- ★ Report swallow-wort discoveries to Cornell Cooperative Extension at 788-8450.



...NOT THE WEED!!!

For more information, visit: www.swallow-wort.com



Midwest Invasive Plant Network

BOOT CLEANING STATION

Help keep alien plants from invading your backyard!

This station is designed to help you remove invasive plant seeds before you leave the park.

Please carefully check your clothing and pet's fur and remove any seeds you find

- . Scrape your shoes on the boot brush below
- . Use the hand-held brush to remove any seeds from clothing or pets
- . Ensure that you are not taking any parts of this plant home with you



The seeds are in the pods!
Dense areas like Wehle State Park can produce more than 35,000 seeds per square yard!

Swallow-wort is a REAL problem here!

Pale swallow-wort is an invasive plant from Europe that has infested Robert G. Wehle State Park. It destroys native plant and animal habitat and spreads very easily. The adjacent kiosk provides more information on the ecology and destructive nature of pale swallow-wort.



Please brush your shoes before leaving this area.

In late summer swallow-wort seed pods open and the milkweed-like seeds are everywhere. These feathery seeds easily stick to your shoes, clothing and even your pet's fur if your dog walks with you - potentially transporting the seeds wherever you go. Thank you for using this boot cleaning station and doing your part to make sure swallow-wort doesn't get a free ride.



Operations







**New York State Office of Parks, Recreation
and Historic Preservation**

**POLICY ON PESTICIDE REDUCTION
IN STATE PARKS AND HISTORIC SITES**

Purpose

As part of the agency's sustainability initiative and our commitment to protecting the health of agency staff, the public, and ecological resources, OPRHP will promote environmentally sensitive pest management by minimizing the use of pesticides in New York State Parks and Historic Sites. Our goal is to eliminate pesticide uses wherever possible. In special instances where pesticide use is required, we will limit our use to least toxic alternatives.

This policy is effective immediately.

Dated: April 22, 2009

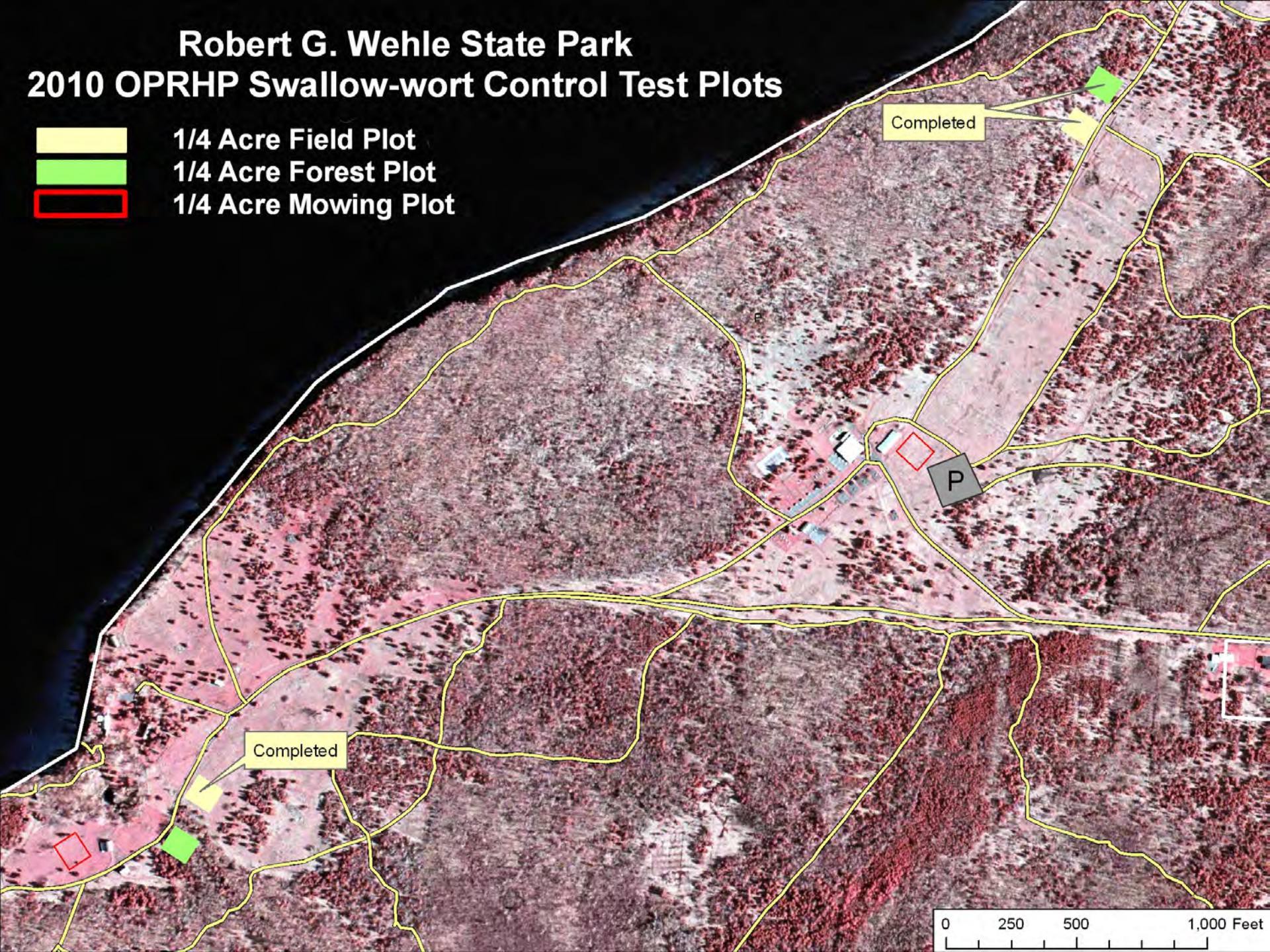


Carol Ash
Commissioner

Robert G. Wehle State Park

2010 OPRHP Swallow-wort Control Test Plots

-  1/4 Acre Field Plot
-  1/4 Acre Forest Plot
-  1/4 Acre Mowing Plot



Research Design

- Two conditions
 - Field x 2 and Forest x 2
- Three Restoration Options
 - Do nothing
 - Annual Rye
 - Annual Rye and Native Seeds
- Secondary Restoration Factor - Burn B

No Restoration B	B Annual Rye + Native Seeds
Annual Rye + Native Seeds B	Annual Rye B



Additional OPRHP Research

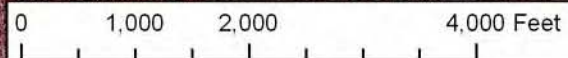
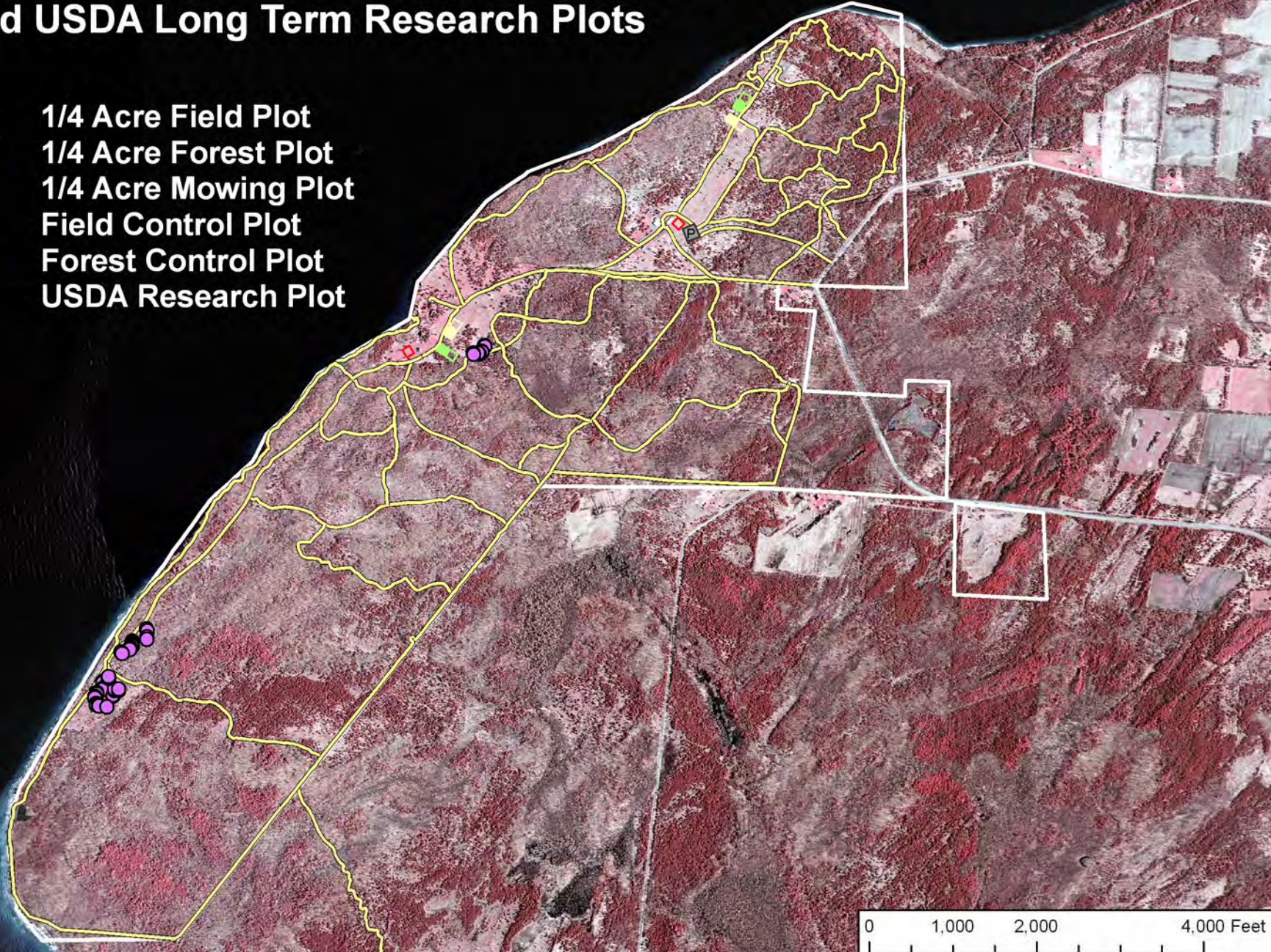
- Use Park History
 - Mowing
 - 5yrs vs. 10yrs vs. 30+ yrs
 - Soil Analysis
 - Swallow-wort root density
 - Native spp. root density
- Greenhouse
 - Roots vs. Nodes
 - Heat vs. No Heat
- Partnership
 - USDA ARS



Robert G. Wehle State Park

2010 OPRHP Swallow-wort Control Test Plots and USDA Long Term Research Plots

-  1/4 Acre Field Plot
-  1/4 Acre Forest Plot
-  1/4 Acre Mowing Plot
-  Field Control Plot
-  Forest Control Plot
-  USDA Research Plot





Questions?