The Effectiveness of Field Teams in Creating Invasive Species Prevention Zones

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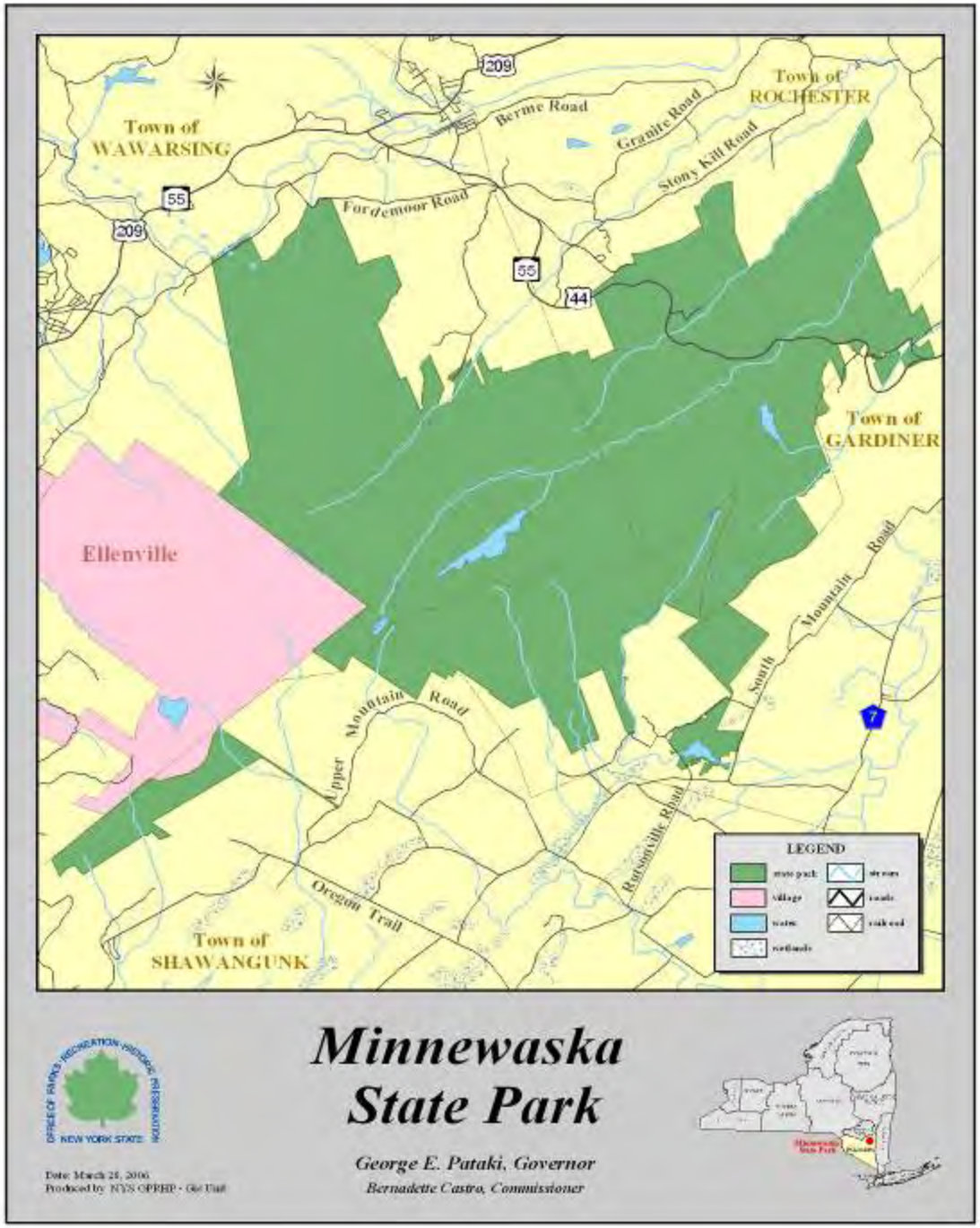
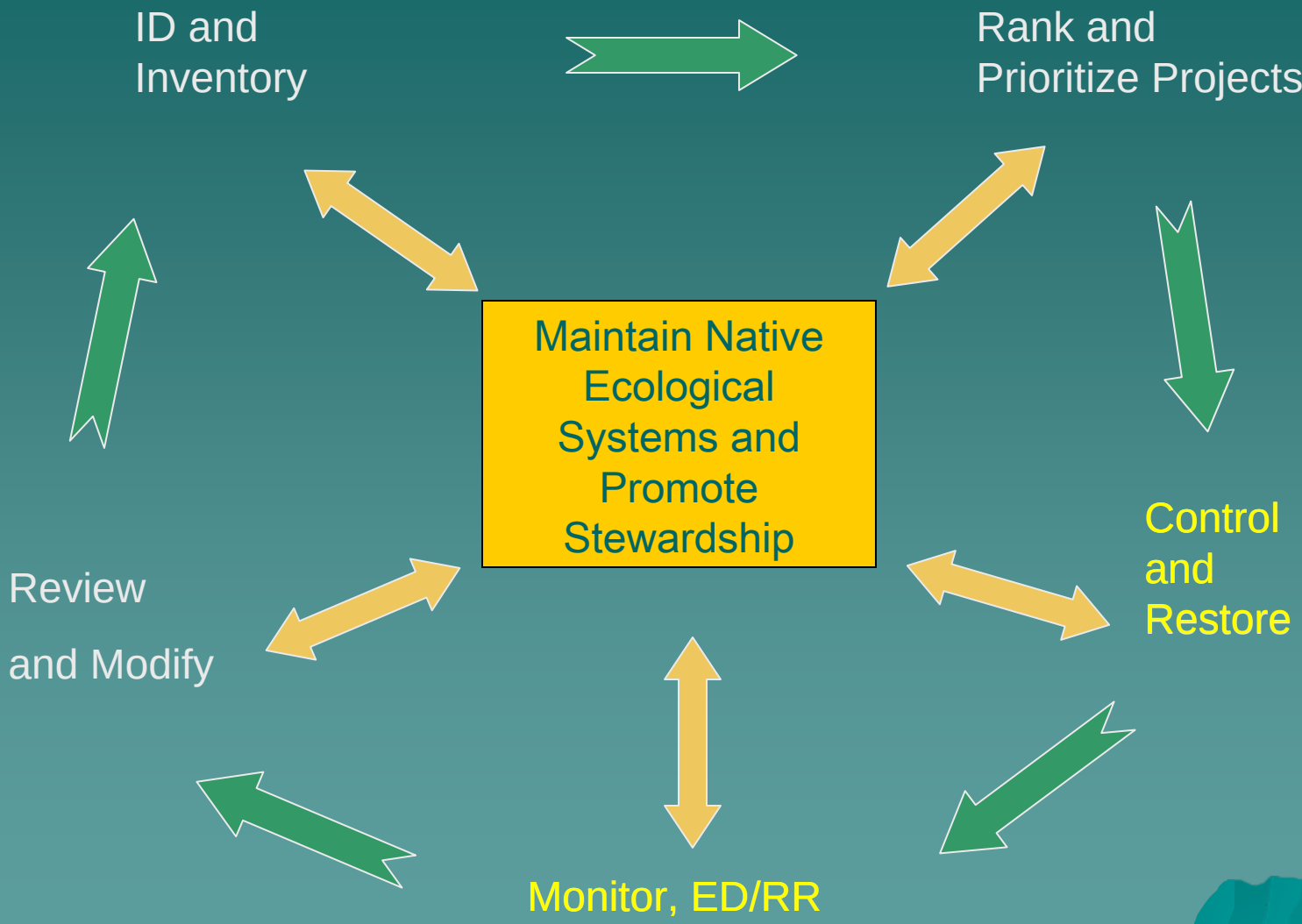

Town of
WAWARSING
209
55
209
Berme Road
Granite Road
Stony Kill Road
Town of
ROCHESTER
Fordemoor Road
55
44
Town of
GARDINER
Ellenville
Mountain Road
South
Upper Mountain Road
Rattlesville Road
Oregon Trail
Town of
SHAWANGUNK
LEGEND
Minnewaska
State Park
George E. Pataki, Governor
Bernadette Castro, Commissioner
Date: March 28, 2006
Produced by: NYS OPRHP - Geo Unit

Outline

- Implementing the IS Management process
- Minnewaska State Park Preserve 2004 - 2008
- MSPP Invasive Species Prevention Zone
- Minnewaska 2009 -2011
- Comparisons
- Conclusions

Invasive Species Management Process



ISM at Minnewaska 2004 -08

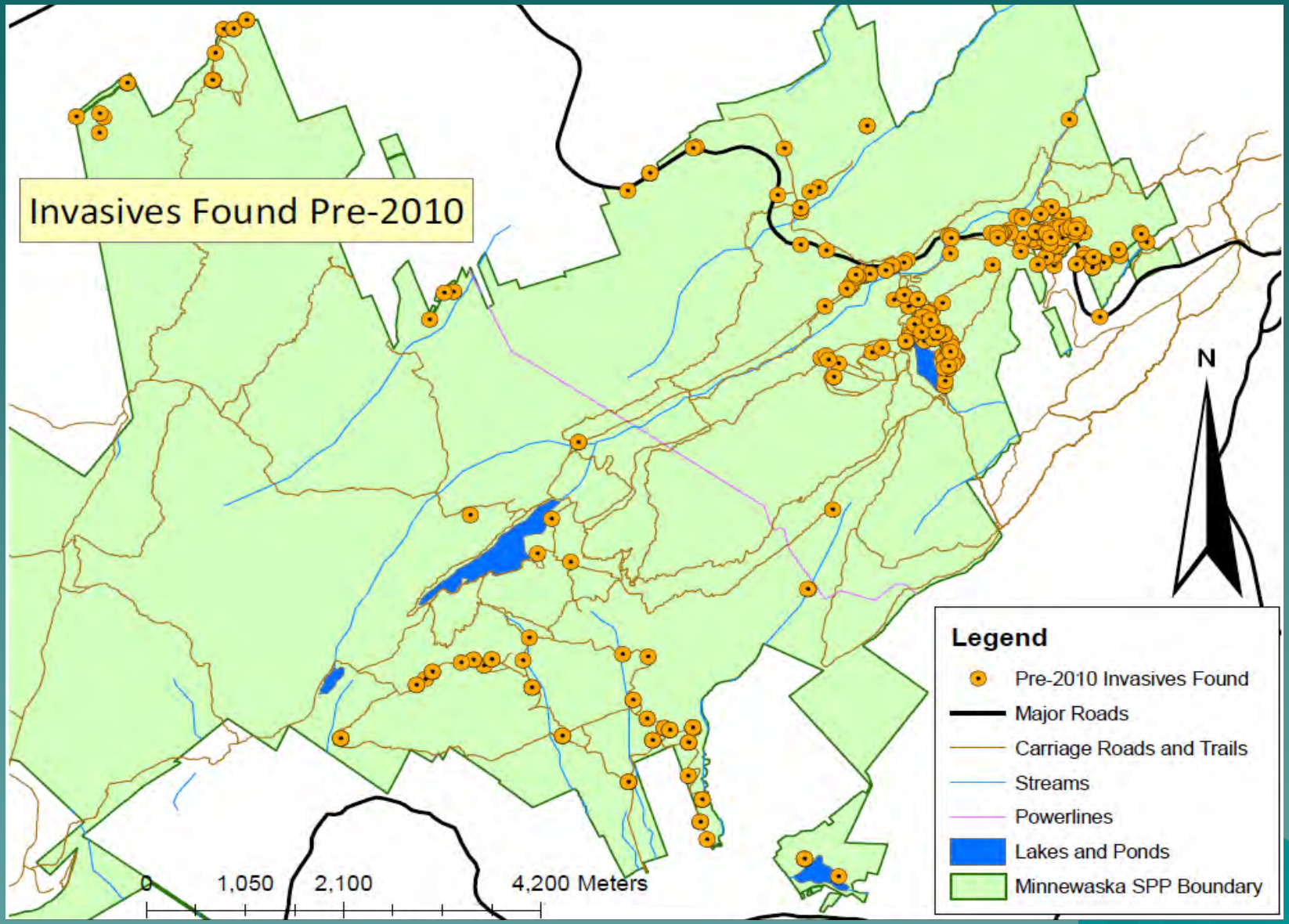
- 2004
  - SCA 3 day service project
- 2005
  - SCA 3 day service project
  - SCA 2 day service project
- 2006
  - Development of Management Plan
  - Statewide data collection form and
  - simple database
- 2007
  - 14 removal projects
  - Database development, extensive data collection, initial ISPZ boundaries
  - DEC Eradication grant application
  - 53 removal projects and 13 plots monitored
- 2008
  - 5 month SCA member
  - DEC Eradication grant award
  - Statewide framework model
  - 30 removal projects 65 plots monitored

Invasive Species Prevention Zones

- Purpose: To protect natural areas dominated by native species and communities
  - > 500 roadless acres or any biodiversity hotspot
    - Less than 5% invasive cover on any one acre
    - Less than 10% along 50m buffer
  - Allows for better early detection and rapid response

2009

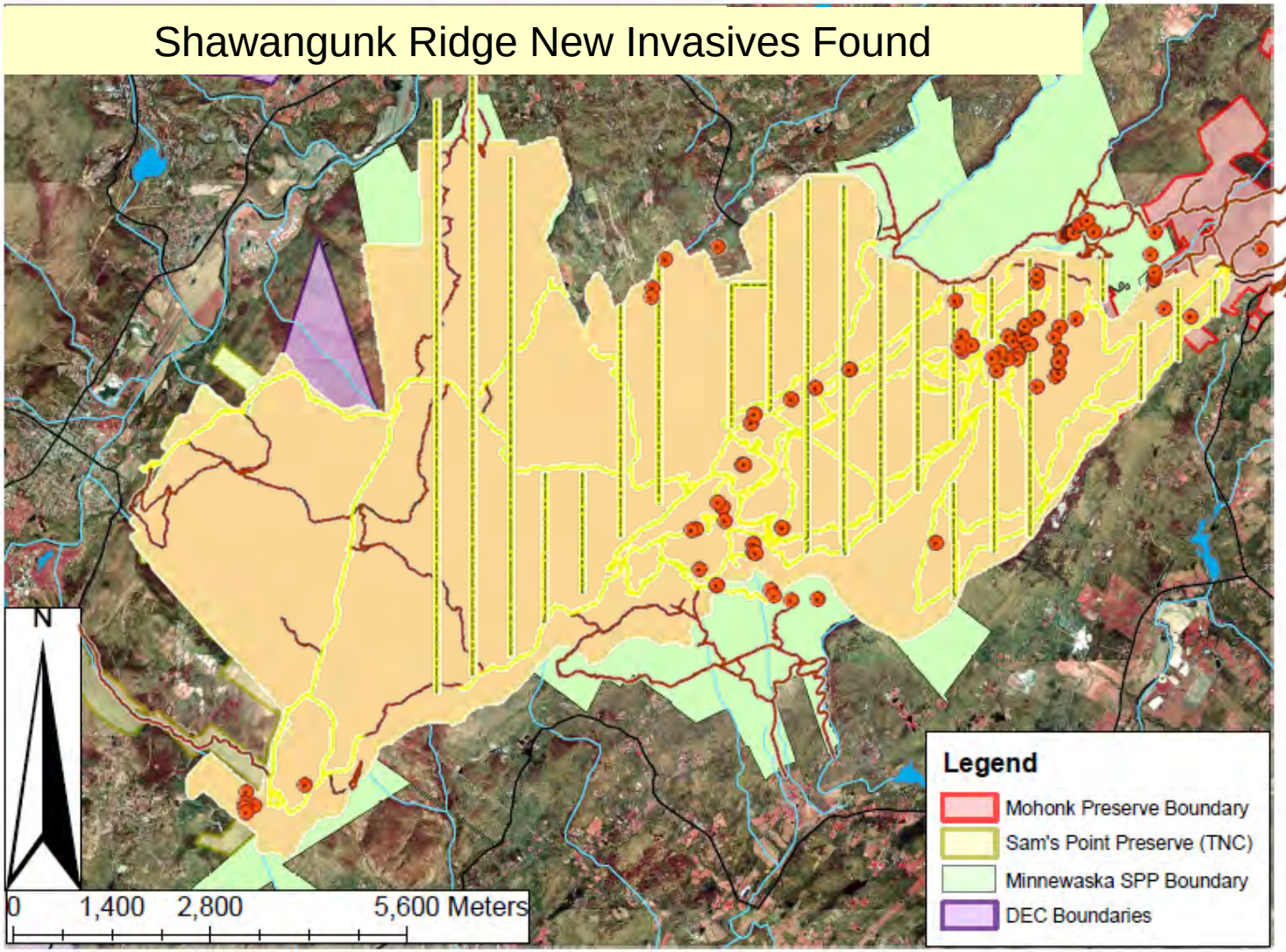
- 10 Month SCA member
- Began in-kind service under the grant
- SCA/AmeriCorps - Green Corps
  - 12 plots over 8 days
- SCA Trails Day
- Volunteers and Staff
- 42 projects, 80 monitoring
- Prioritizing and Planning


Invasives Found Pre-2010
N
Legend
Pre-2010 Invasives Found
Major Roads
Carriage Roads and Trails
Streams
Powerlines
Lakes and Ponds
Minnewaska SPP Boundary
0
1,050
2,100
4,200 Meters

2010

- 62 projects
- 27 species
- 99.5 km of trails and carriage road
- 69.95 km of transects
- 124 new data points

Shawangunk Ridge New Invasives Found

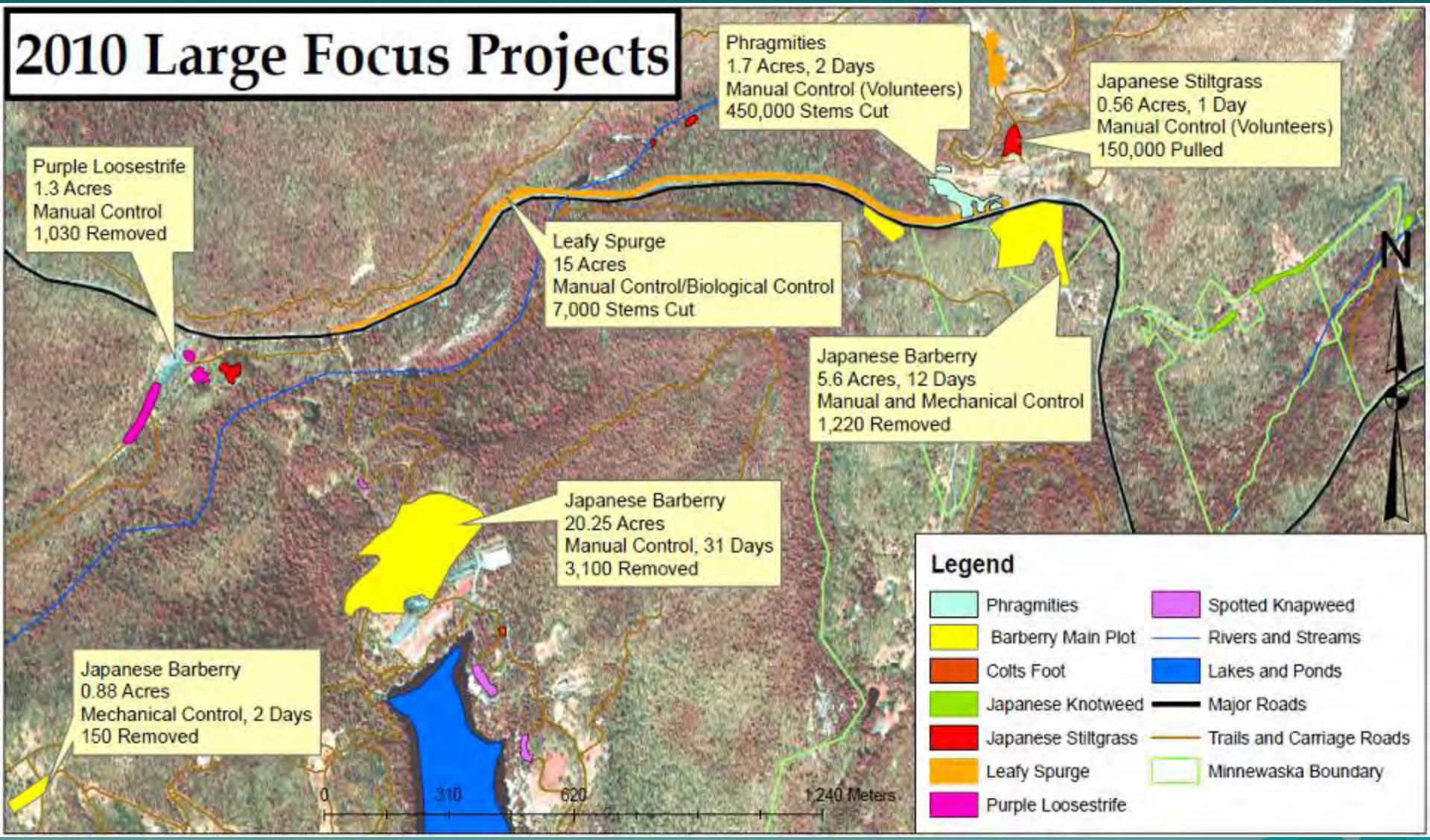


Species Controlled

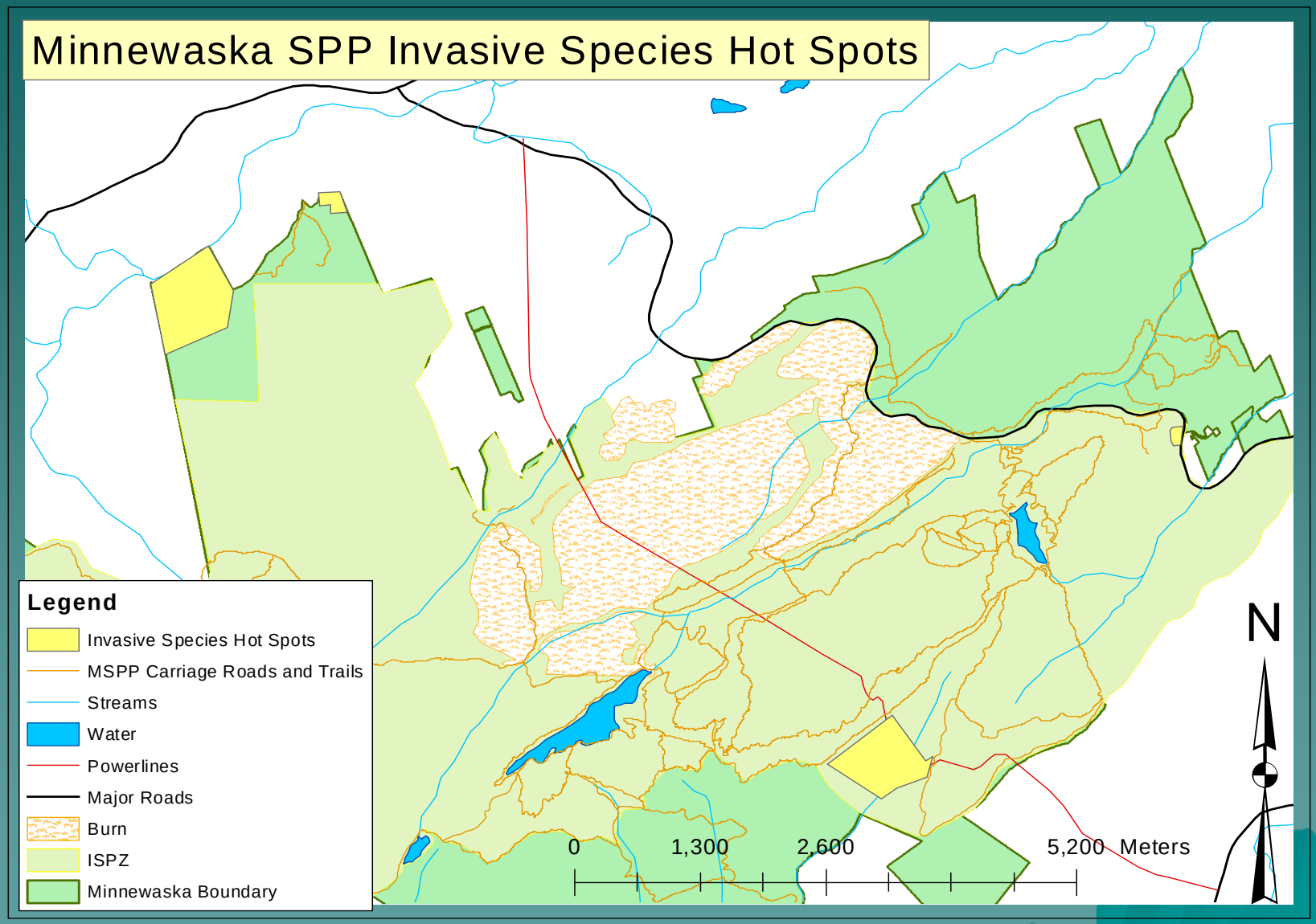
N = 27

	Monthly Control Totals						
Species	June	July	August	September	October	November	**Total**
Ailanthus		20					**20**
Birdsfoot Trefoil	50	80	60				**190**
Black Swallowwort	530	50	1,000	400			**1,980**
Blueweed	15						**15**
Bull Thistle	20	86	166	31	1		**304**
Butter and Eggs	50						**50**
Canada Thistle	150		18	402			**570**
Coltsfoot		1,400	190		310		**1,900**
Common Reed	450,000	400	60	450,000			**900,460**
European Barberry		56					**56**
Garlic Mustard	240		20				**260**
Honeysuckle	1		1				**2**
Japanese Barberry	1,858	695	308	322	784	675	**4,642**
Japanese Knotweed	6,000						**6,000**
Japanese Stiltgrass		44,000	35,600	180,000	150,000		**409,600**
Lady's Pepperthumb			100				**100**
Leafy Spurge		4,000	3,000				**7,000**
Mugwort		20					**20**
Multiflora Rose	5	3	3		3		**9**
Oriental Bittersweet		20					**20**
Oxeye Daisy	150	65					**215**
Pink Knotweed			130				**130**
Purple Loosestrife			530	496			**1,026**
Spotted Knapweed	850	1,466	696	400	300		**3,712**
White Sweet Clover	5	250					**250**
Wineberry			175				**175**
Yellow Sweet Clover	90	270	75				**435**
				7 Target Species (Yellow) Total:			**1,332,440**
				GRAND TOTAL			**1,345,532**

2010 Large Focus Projects



Focus Areas for 2011



Comparative Example

- Beaver Island State Park
  - Does not include ED/RR, Transects and Trails Mapping
- Japanese knotweed removal
- .75 acre
- 3 quotes
- Average of quotes=

$33,937.00

Field Crew Expenditures 2010

- Total costs 2010 = $69,215.00
  - Includes ED/RR, Transects and Trails Mapping
- Area of control plots = 45.37 acres
- Cost per acre of control =

$1,526.00

Contractor vs. Crews vs. Volunteers

- 24 contractor projects on the 2009 schedule have an adjusted mean cost estimation of $ 62,500.00/project.
- 82 listed field-crews/staff projects are estimated to cost $ 14,750.00/project.
- The 135 completed volunteer/staff projects 2009 - 2010 came in at $738.00/project.
  - Many of these projects are small one day controls.

Conclusions

- Crews can save 75% compared to contracting projects.
- In general, contract and crew/staff projects are of a much larger scale.
- Experienced crews aid efforts in mapping, early detection, delimiting ISPZ's, monitoring and more.

? Questions ?

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