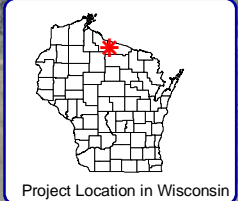


**Land Ownership (Inset map)**

- Federal (none shown)
- State
- County (none shown)

2,750  
Feet



Project Location in Wisconsin

N  
W E  
S  
1,250  
Feet

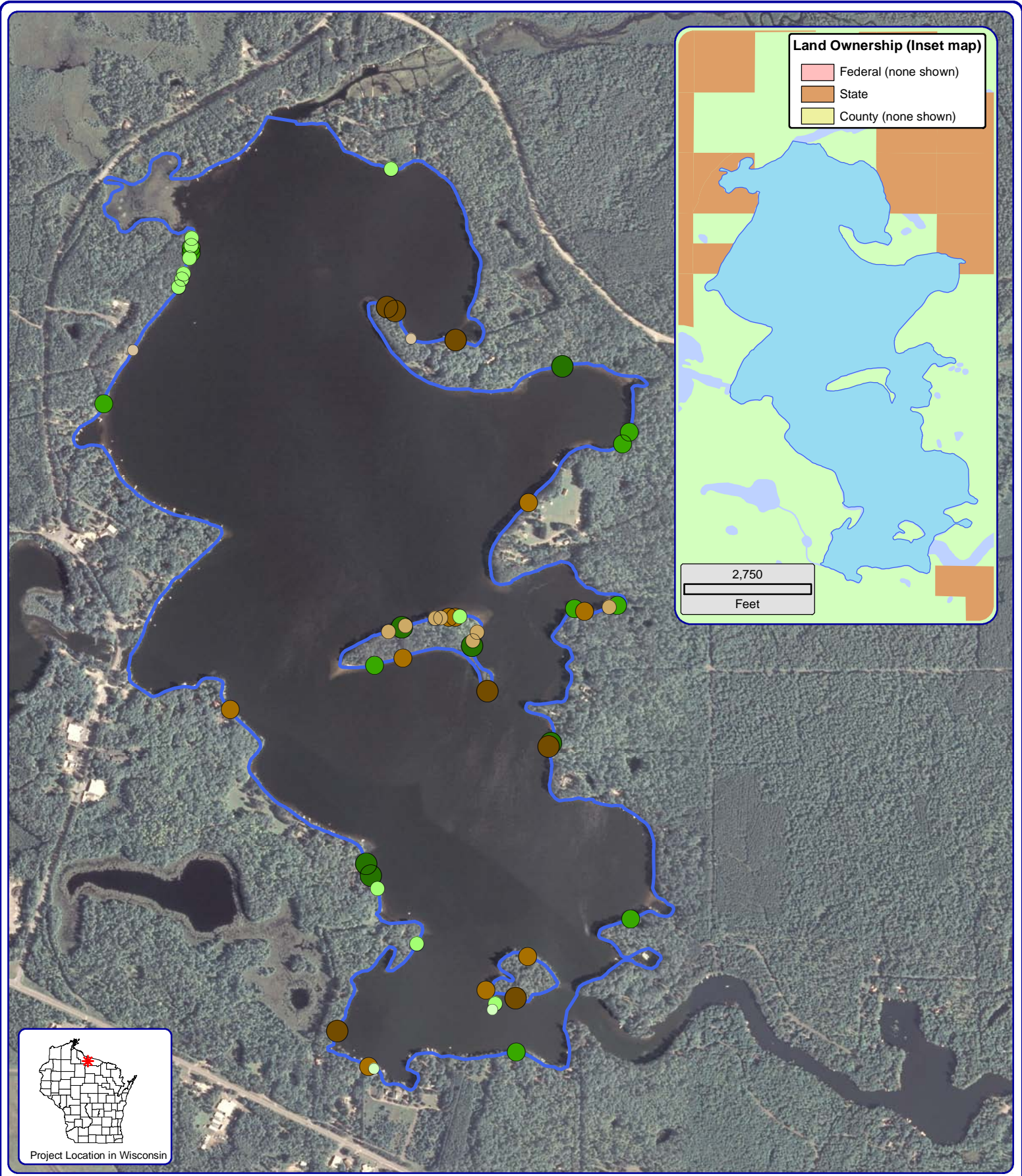
**Onterra LLC**  
Lake Management Planning  
815 Prosper Road  
De Pere, WI 54115  
920.338.8860  
www.onterra-eco.com

Sources:  
Shoreline Assessment: Onterra, 2013  
Orthophotography: NAIP, 2010  
Map Date: September 24, 2013  
Filename: Rest\_Map1\_SA\_2012.mxd

**Legend**

- Natural/Undeveloped
- Developed-Natural
- Developed-Semi-Natural
- Developed-Unnatural
- Urbanized
- Masonry/Wood
- Rip-Rap
- Seawall

Rest Lake - Map 1  
Manitowish Waters  
Chain of Lakes  
Vilas County, Wisconsin  
**Shoreline Condition**



**Land Ownership (Inset map)**

- Federal (none shown)
- State
- County (none shown)

2,750  
Feet



Project Location in Wisconsin

1,250  
Feet

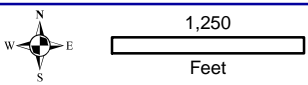
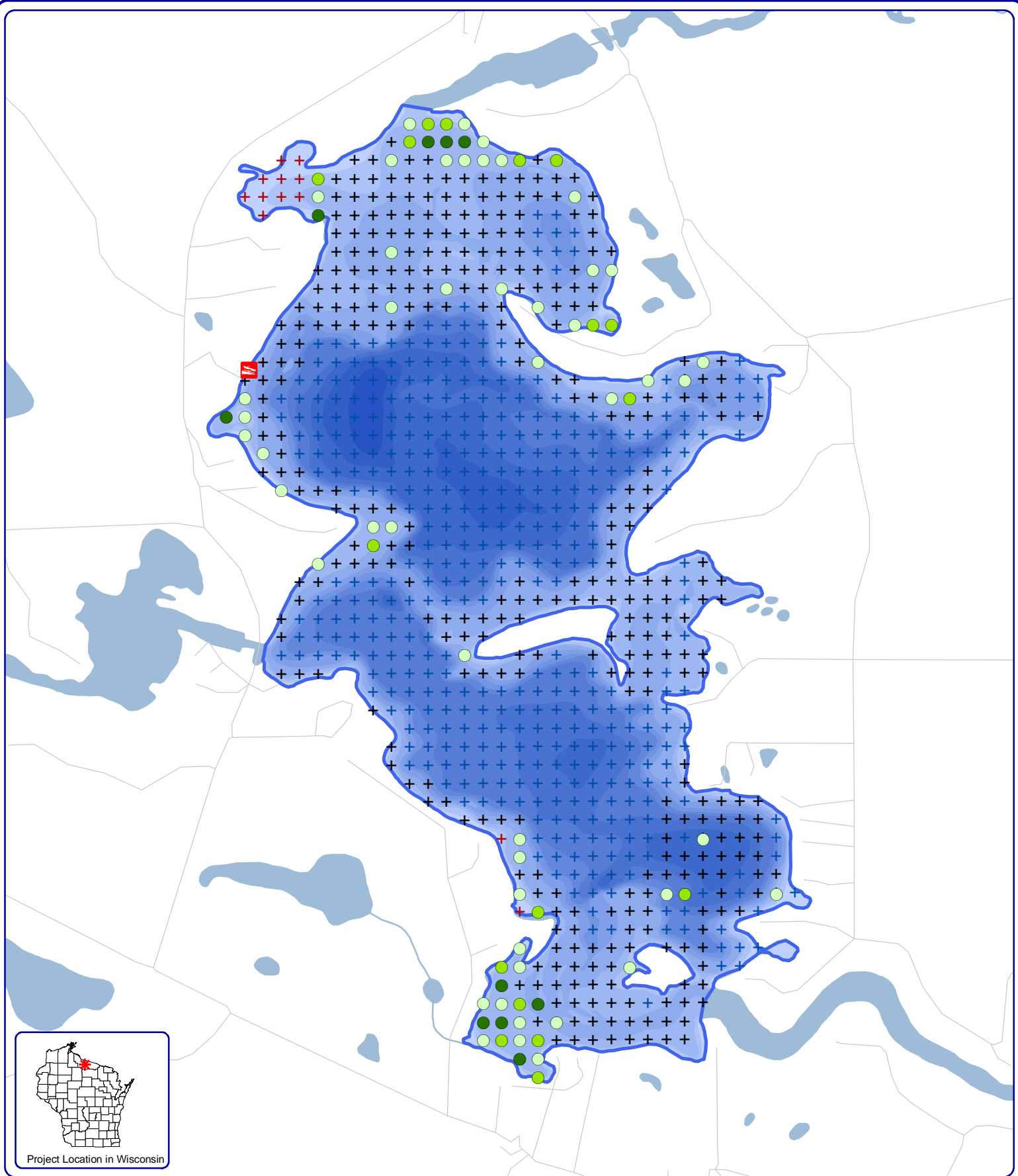
**Legend**

- 2-8 Inches, No Branches
- >8 Inches, No Branches
- 2-8 Inches, Minimal Branches
- >8 Inches, Minimal Branches (none)
- 2-8 Inches, Moderate Branches
- >8 Inches, Moderate Branches
- 2-8 Inches, Full Canopy (none)
- >8 Inches, Full Canopy
- Cluster

**Sources:**  
Shoreline Assessment: Onterra, 2013  
Orthophotography: NAIP, 2010  
**Map Date:** September 24, 2013  
*Filename: Rest\_Map2\_CWH\_2012.mxd*

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**Rest Lake - Map 2**  
**Manitowish Waters**  
**Chain of Lakes**  
Vilas County, Wisconsin  
**Course Woody Habitat**



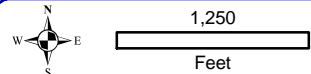
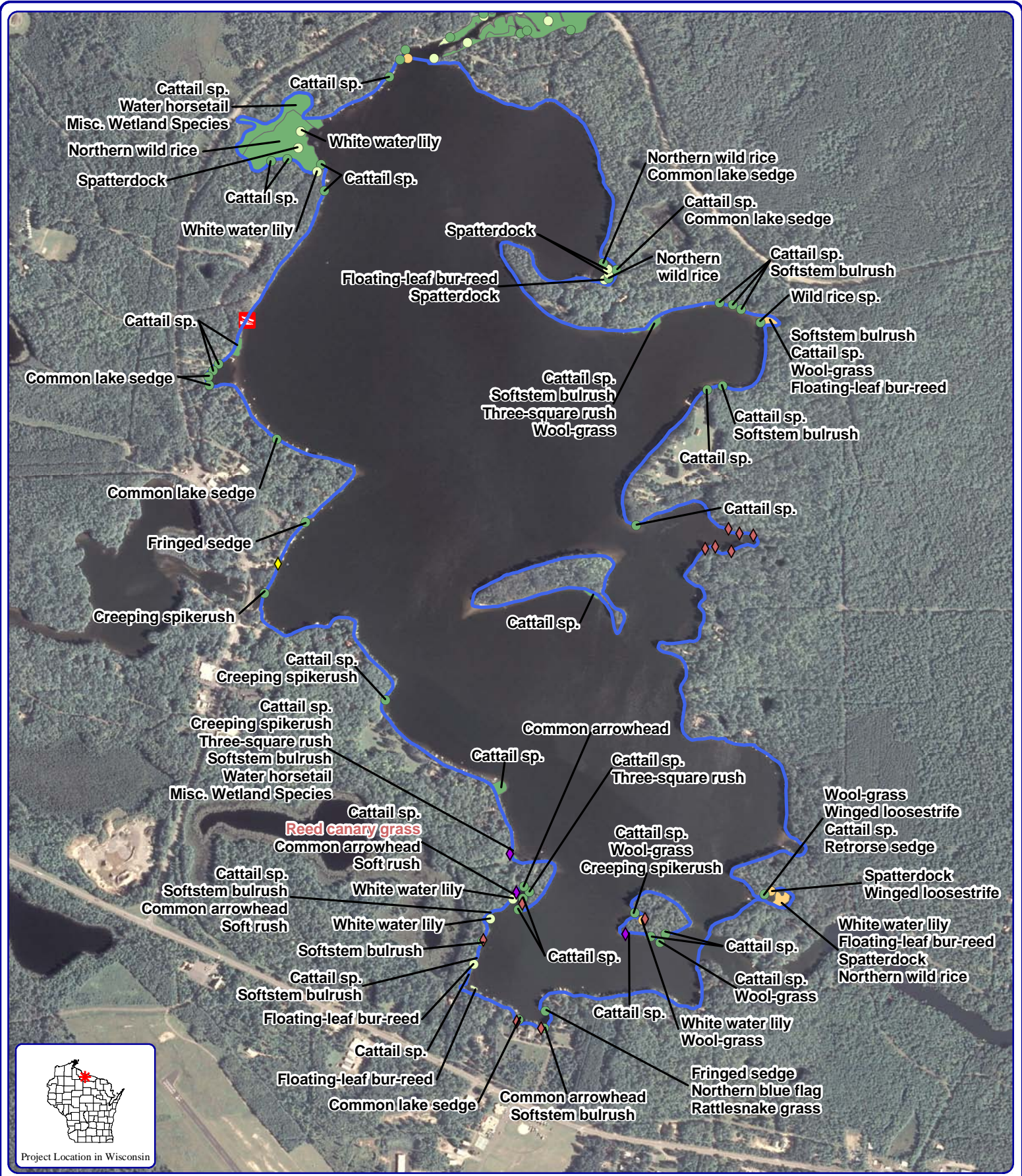
**Onterra LLC**  
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 920.338.8860  
 www.onterra-eco.com

Sources:  
 Roads and Hydro: WDNR  
 Aquatic Plant Survey: Onterra, 2012  
 Map Date: September 24, 2013  
 Filename: Rest\_Map3\_TRFP1\_2012.mxd

**Legend**  
 2012 Point-intercept Survey

- + No Vegetation
- Total Rake Fullness = 1
- Total Rake Fullness = 2
- Total Rake Fullness = 3
- + Too Deep (Below Max Depth of Plants)
- + Non-navigable

**Rest Lake - Map 3**  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Aquatic Vegetation  
 Distribution**



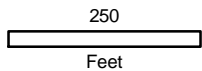
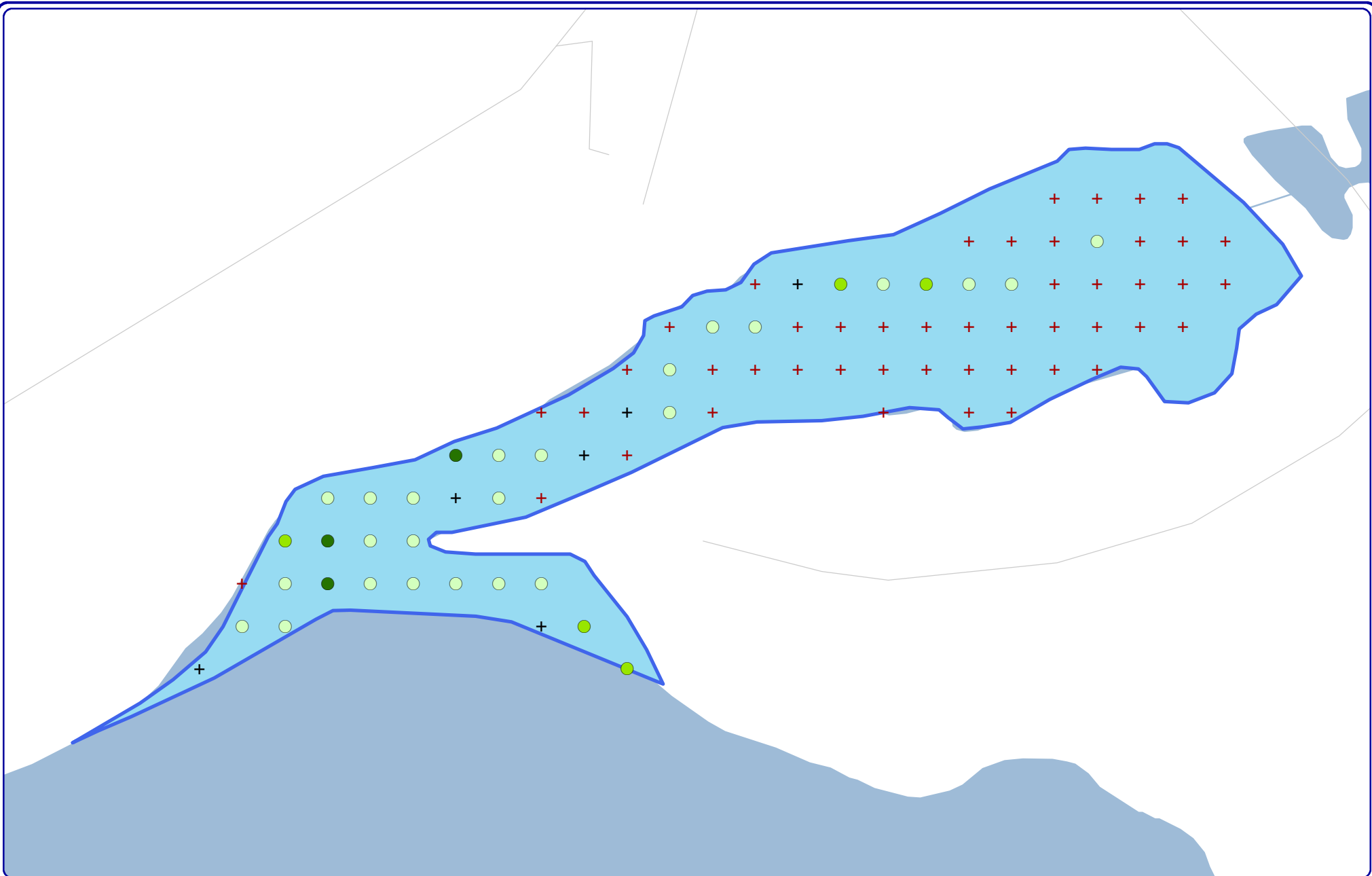
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**Sources:**  
 Hydro: WDNR  
 Aquatic Plants: Onterra, 2012  
 Orthophotography: NAIP, 2010  
**Map date:** December 11, 2012  
 Filename: Rest\_Comm\_2012.mxd

Small Plant Communities	Large Plant Communities	Exotic Plant Communities
● Emergent	■ Emergent	◆ Purple Loosestrife
● Floating-leaf	■ Floating-leaf	◆ Pale Yellow Iris
● Mixed Floating-leaf & Emergent	■ Mixed Floating-leaf & Emergent	◆ Reed Canary Grass

Rest Lake - Map 4  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin

**Emergent & Floating-leaf  
 Aquatic Plant Communities**



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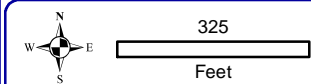
Sources:  
 Aquatic Plant Survey: Onterra, 2012  
 Roads and Hydro: WDNR  
 Map Date: September 24, 2013  
 Filename: PapooseBay\_Map1\_TRFPI\_2012.mxd

**Legend**

**2012 Point-intercept Survey**

- + No Vegetation
- Total Rake Fullness = 1
- Total Rake Fullness = 2
- Total Rake Fullness = 3
- + Too Deep (Below Max Depth of Plants)
- + Non-navigable

Papoose Bay - Map 1  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Aquatic Plant Distribution**



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Sources:  
 Aquatic Plants: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map date: December 11, 2012  
 Filename: PapooseBay\_Map2\_Comm\_2012.mxd



**Small Plant Communities**

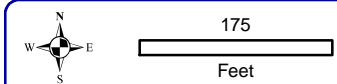
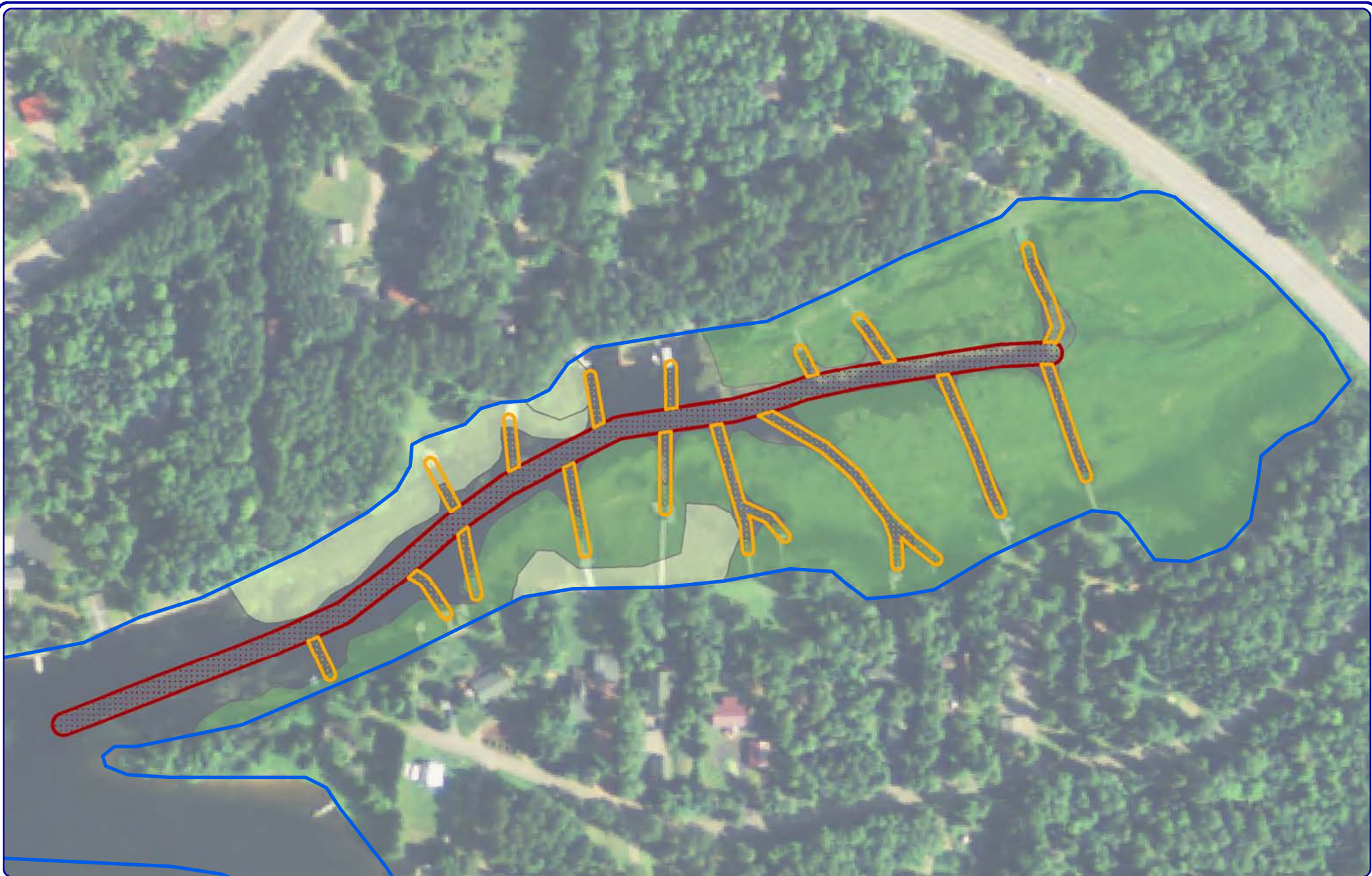
- Emergent
- Floating-leaf
- Mixed Floating-leaf & Emergent

**Legend**

**Large Plant Communities**

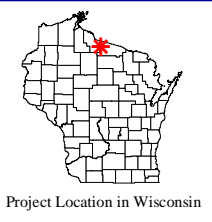
- Emergent
- Floating-leaf
- Mixed Floating-leaf & Emergent

Papoose Bay - Map 2  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Emergent & Floating-leaf  
 Aquatic Plant Communities**







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**Sources:**  
 Aquatic Plants: Onterra, 2012  
 Orthophotography: NAIP, 2010  
**Map date:** October 8, 2013  
 Filename: Rest\_Map3\_MechanicalHarvestPlan.mxd

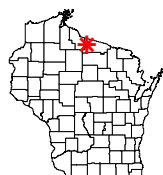
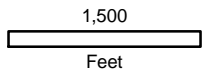
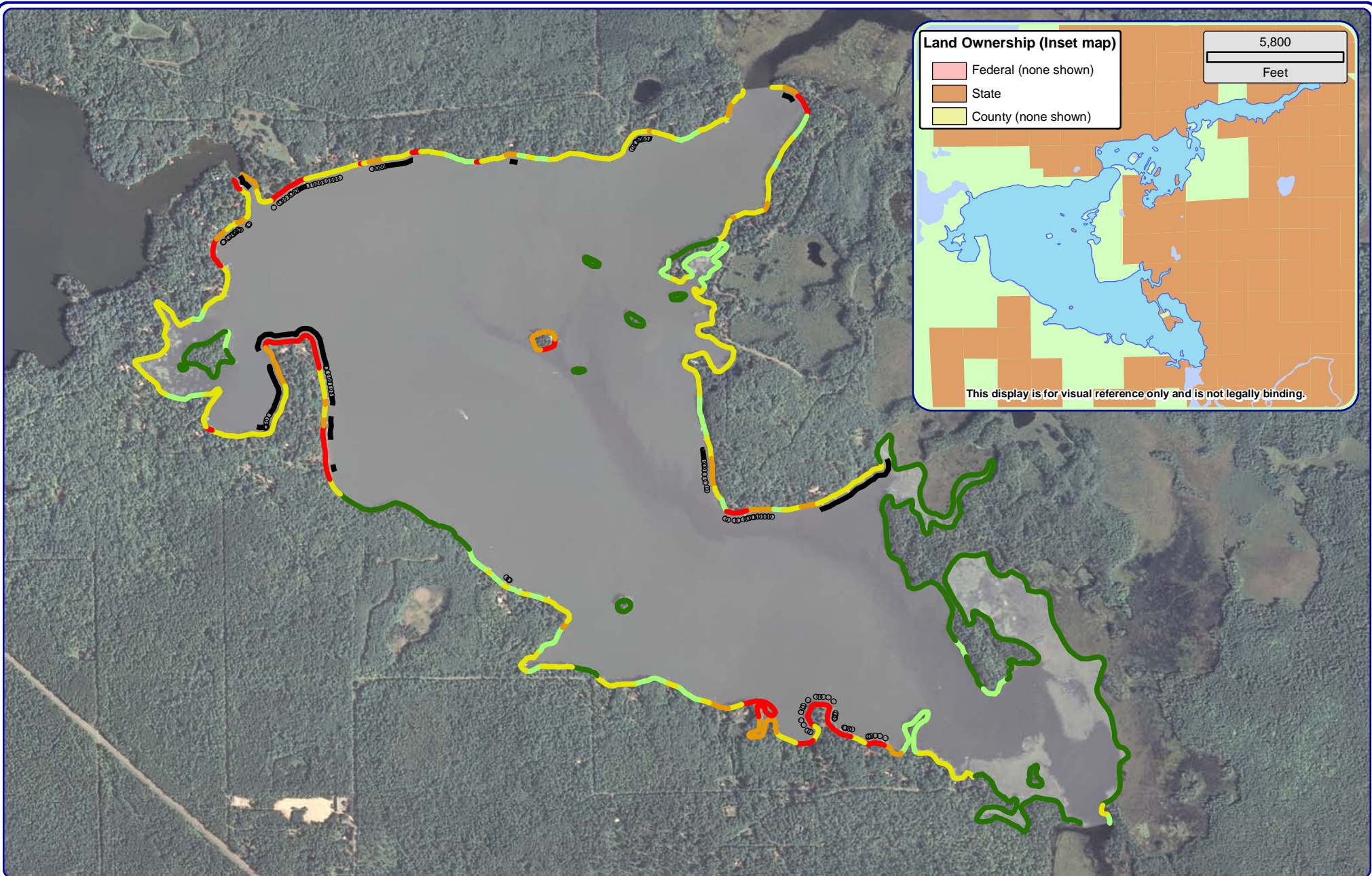


**Legend**

- Mechanical Harvest Plan**
-  Common Use Lane  
(30-ft width, 1.0 total acres)
  -  Riparian Access Lane  
(15-ft width, 0.7 total acres)

- Northern Wild Rice**
-  Dense Plant Community
  -  Sparse Plant Community

**Papoose Bay - Map 3**  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Current Mechanical  
 Harvest Plan**



Project Location in Wisconsin

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Sources:  
 Shoreline Assessment: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map Date: September 24, 2013  
 Filename: Island\_Map1\_SA\_2012.mxd

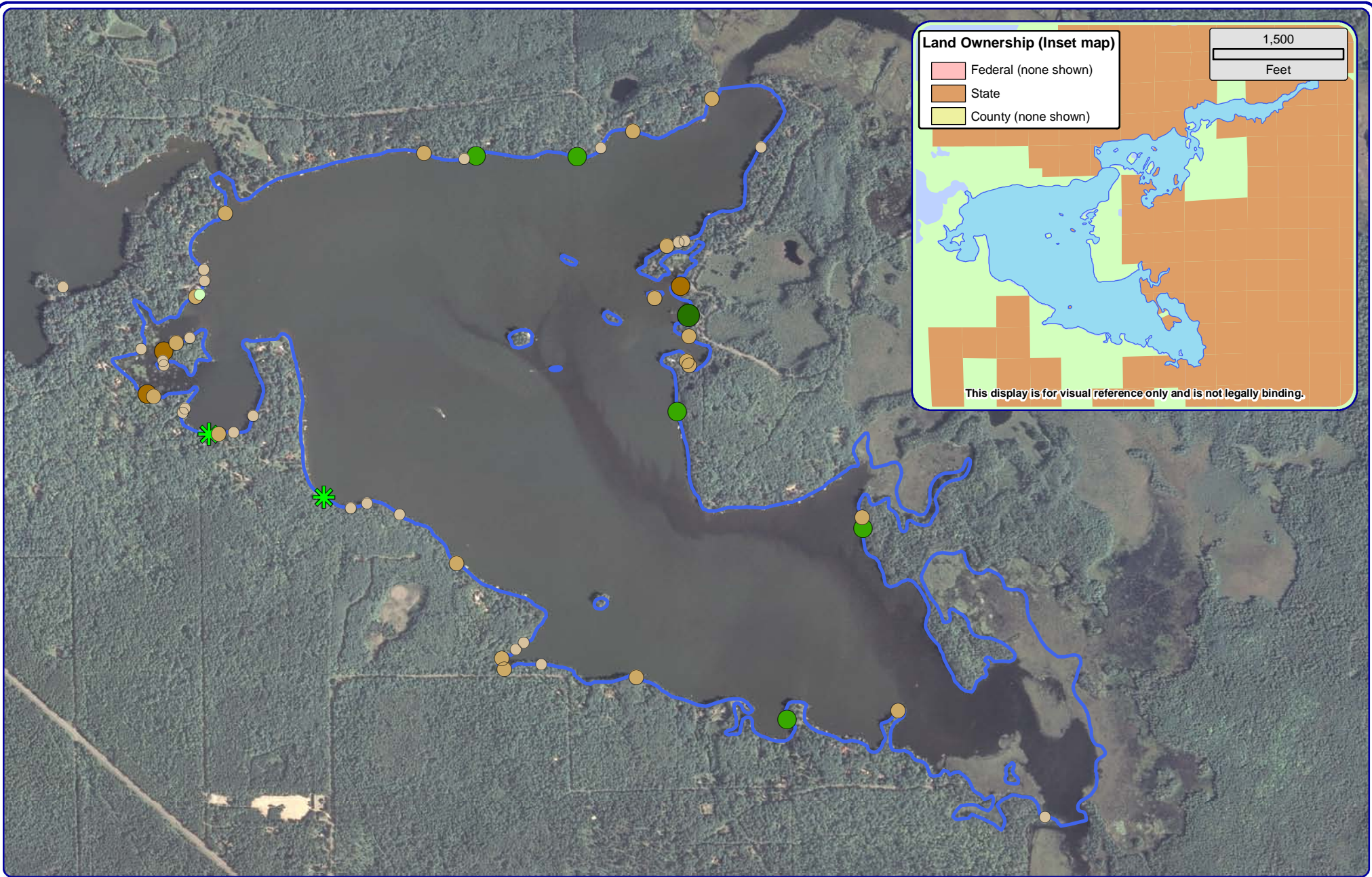
- Natural/Undeveloped
- Developed-Natural
- Developed-Semi-Natural
- Developed-Unnatural
- Urbanized

**Legend**

- Seawall
- Masonary/Metal/Wood
- Rip-Rap

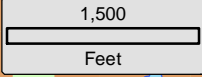
Island Lake - Map 1  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Shoreline Condition**



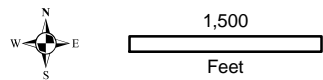


**Land Ownership (Inset map)**

- Federal (none shown)
- State
- County (none shown)



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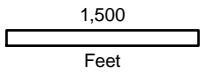
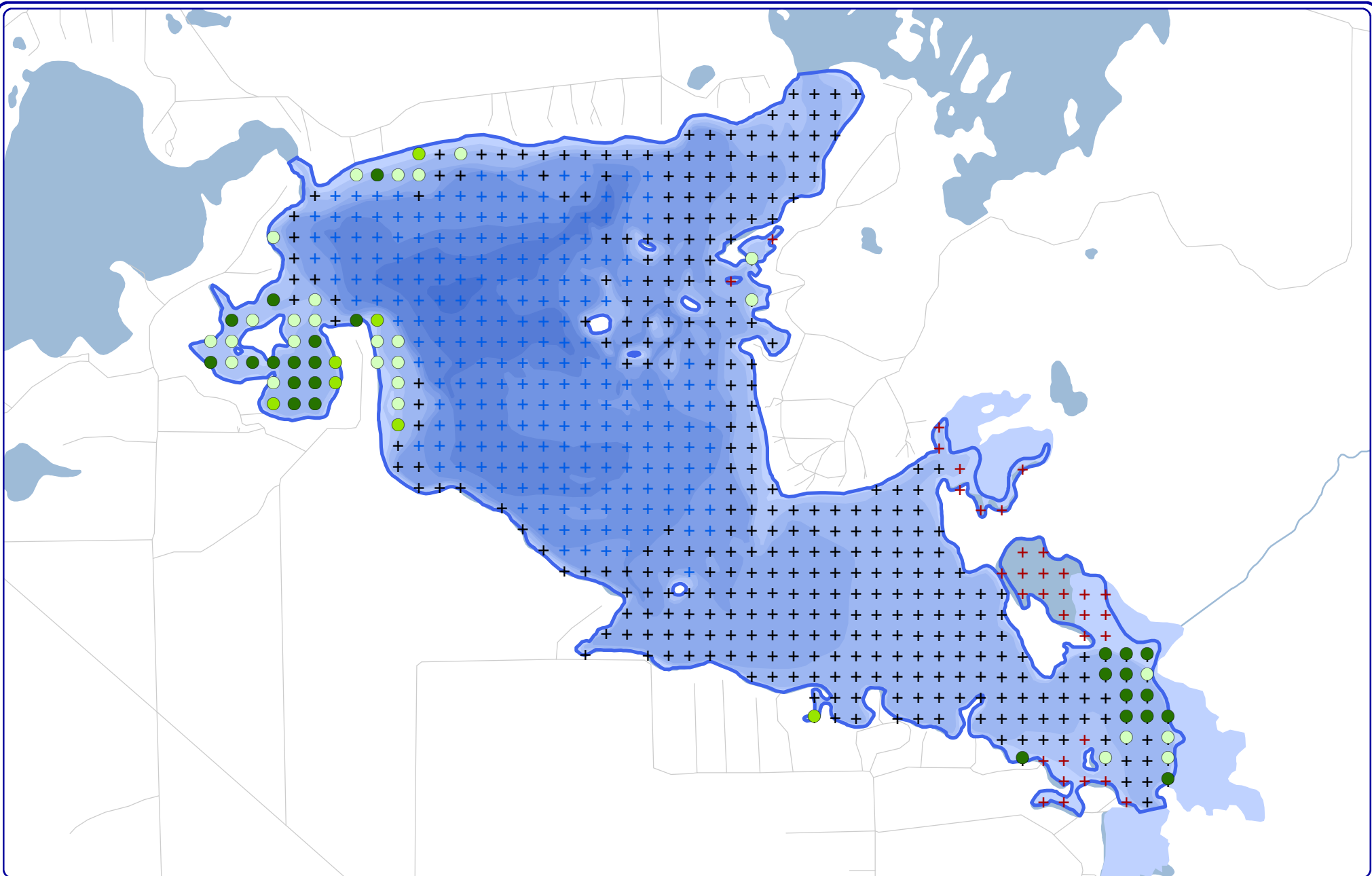
Sources:  
 Shoreline Assessment: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map Date: September 24, 2013  
 Filename: Island\_Map2\_CWH\_2012.mxd



**Legend**

- 2-8 Inches, No Branches
- >8 Inches, No Branches
- 2-8 Inches, Minimal Branches
- >8 Inches, Minimal Branches (none)
- 2-8 Inches, Moderate Branches
- >8 Inches, Moderate Branches
- 2-8 Inches, Full Canopy (none)
- >8 Inches, Full Canopy
- Cluster

Island Lake - Map 2  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Course Woody Habitat**



Project Location in Wisconsin

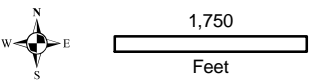
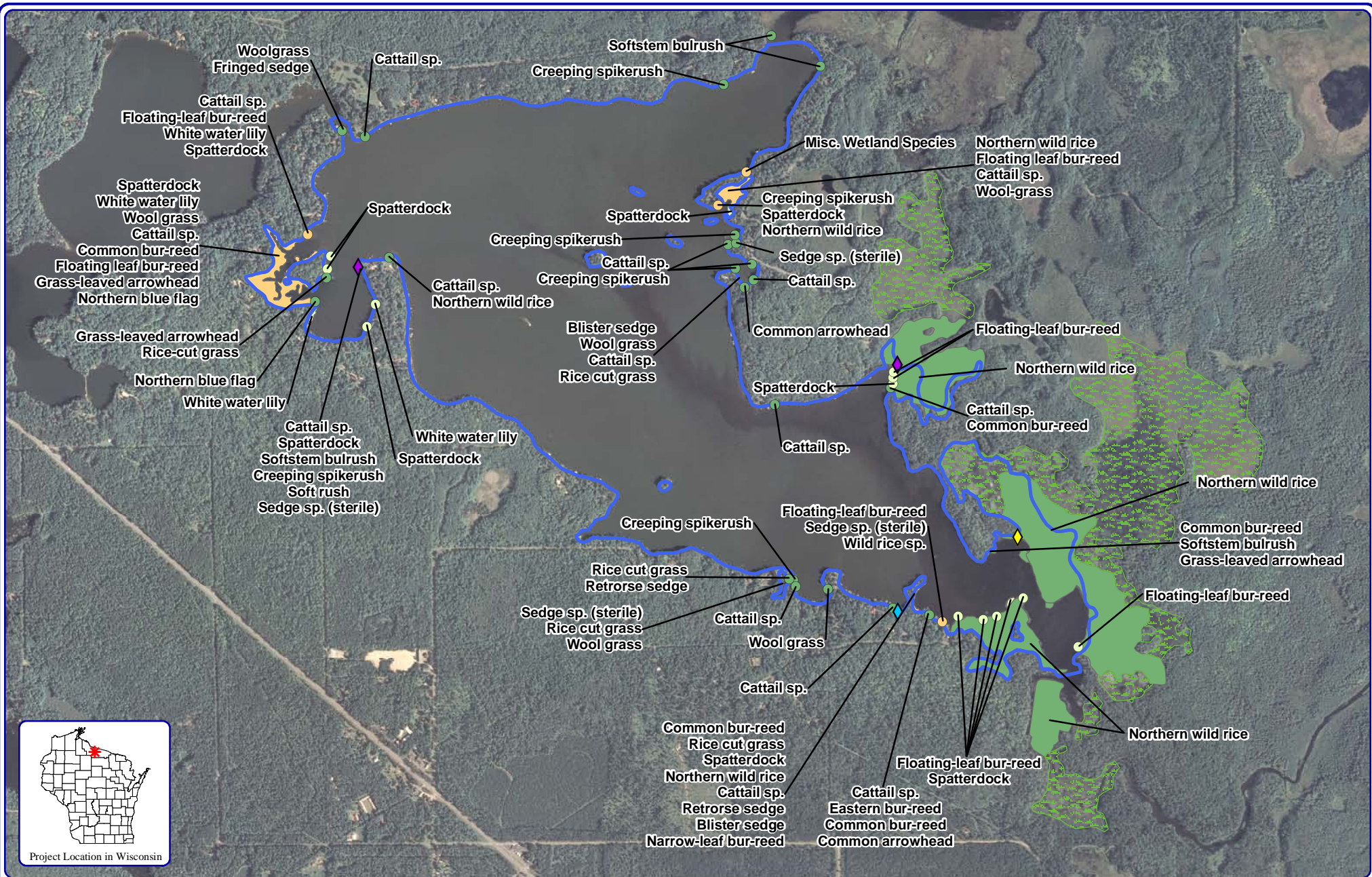
**Onterra LLC**  
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 815 Prosper Road  
 De Pere, WI 54115  
 920.338.8860  
 www.onterra-eco.com

Sources:  
 Aquatic Plant Survey: WDNR, 2011  
 Roads and Hydro: WDNR  
 Map Date: September 24, 2013  
 Filename: Island\_Map3\_TREPI\_2012.mxd

**Legend**  
 2011 Point-intercept Survey

- + No Vegetation
- + Too Deep (Below Max Depth of Plants)
- + Non-navigable
- Total Rake Fullness = 1
- Total Rake Fullness = 2
- Total Rake Fullness = 3

Island Lake - Map 3  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Aquatic Plant Distribution**



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Sources:  
 Aquatic Plants: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map date: December 12, 2012  
 Filename: Island\_Map4\_Comm\_2012.mxd

**Small Plant Communities**

- Emergent
- Floating-leaf
- Mixed Floating-leaf & Emergent

**Legend**

**Large Plant Communities**

- Emergent
- Floating-leaf
- Mixed Floating-leaf & Emergent
- Adjacent Wetland Habitat

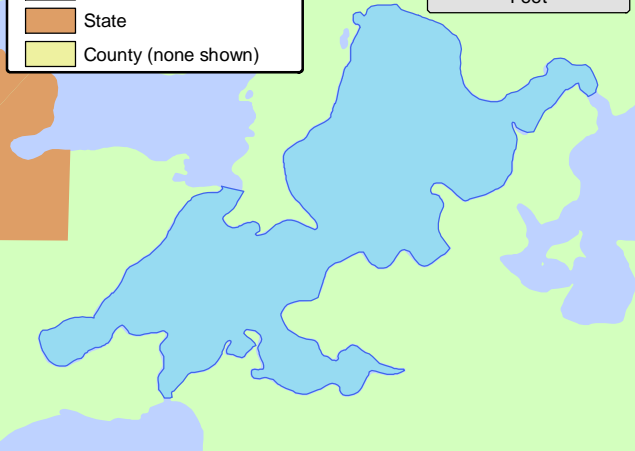
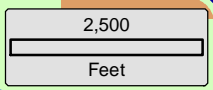
**Exotic Plant Communities**

- ◆ Purple loosestrife
- ◆ Pale Yellow Iris
- ◆ Common forget-me-not

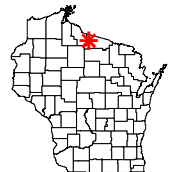
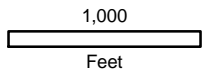
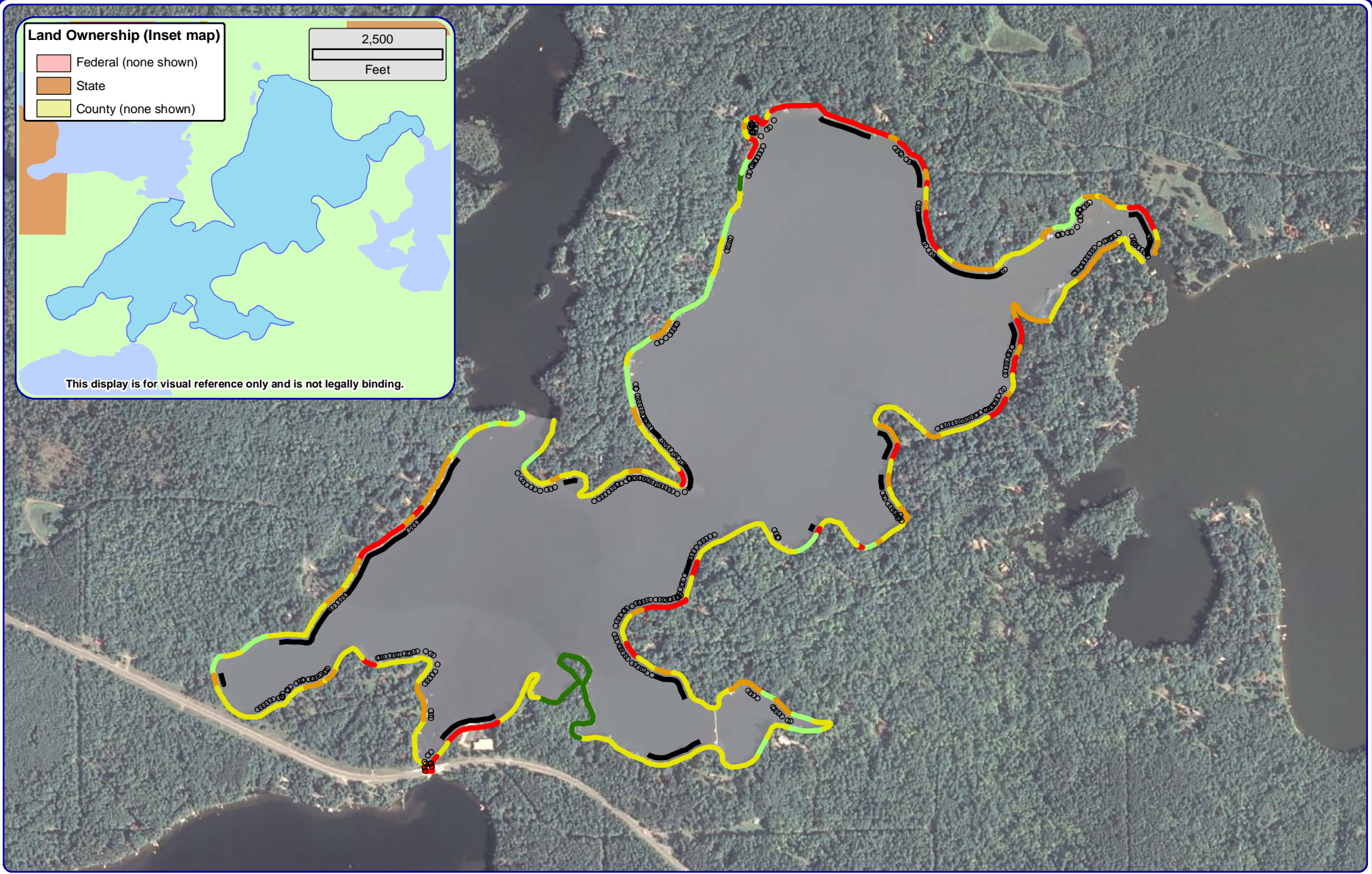
**Island Lake - Map 4**  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Emergent & Floating-leaf**  
**Aquatic Plant Communities**

**Land Ownership (Inset map)**

- Federal (none shown)
- State
- County (none shown)



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Project Location in Wisconsin

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Sources:  
 Shoreline Assessment: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map Date: September 24, 2013  
 Filename: Spider\_Map1\_SA\_2012.mxd

- Natural/Undeveloped
- Developed-Natural
- Developed-Semi-Natural
- Developed-Unnatural
- Urbanized

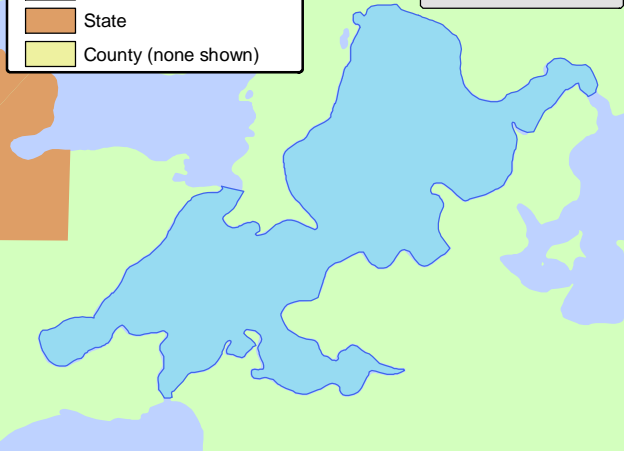
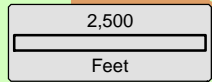
**Legend**

- Seawall
- Masonary/Metal/Wood
- Rip-Rap

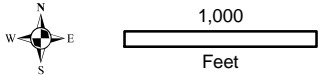
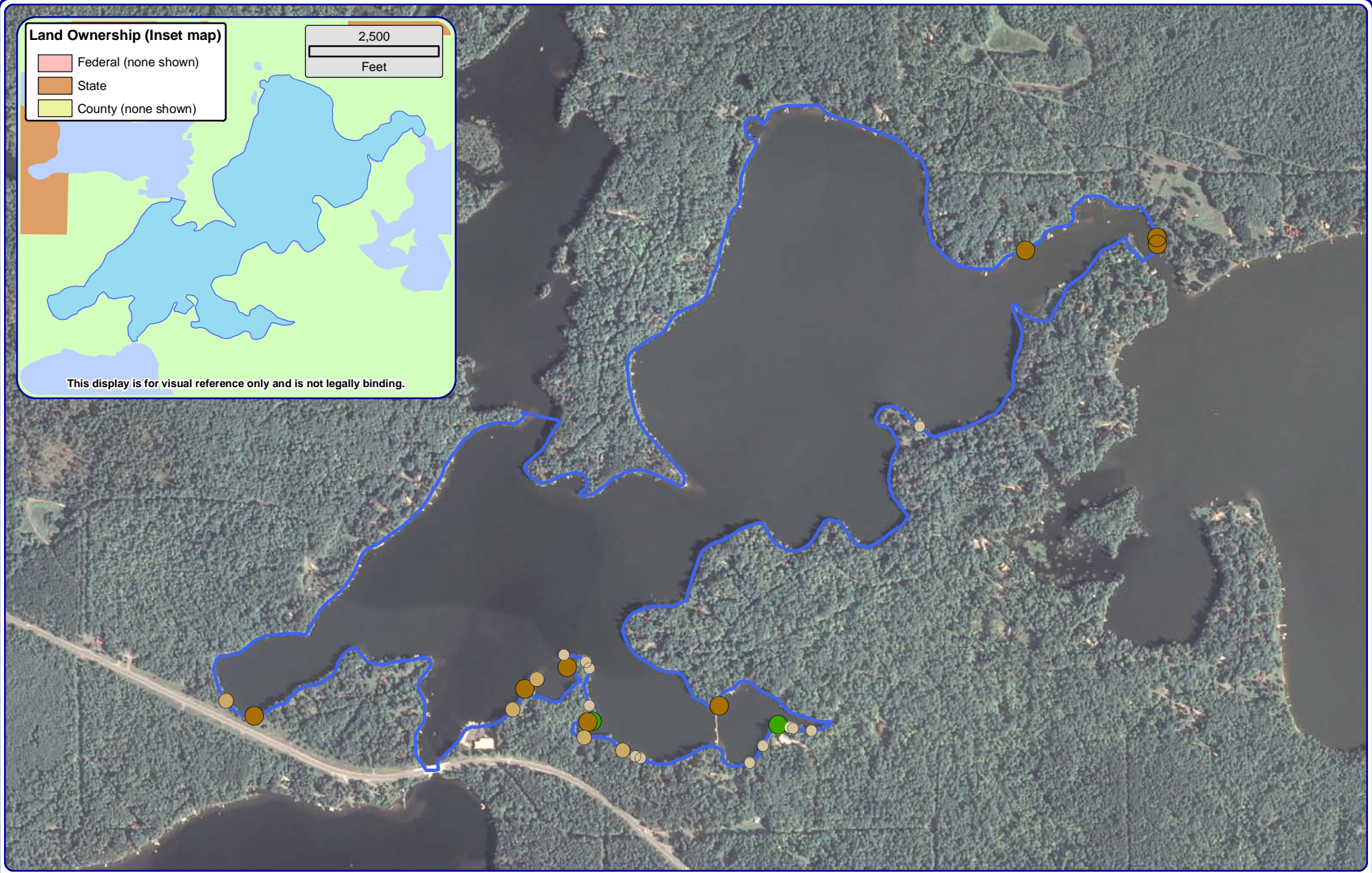
Spider Lake - Map 1  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Shoreline Condition**

**Land Ownership (Inset map)**

- Federal (none shown)
- State
- County (none shown)



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Project Location in Wisconsin

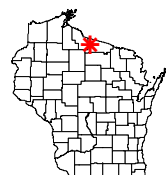
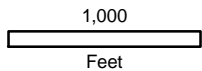
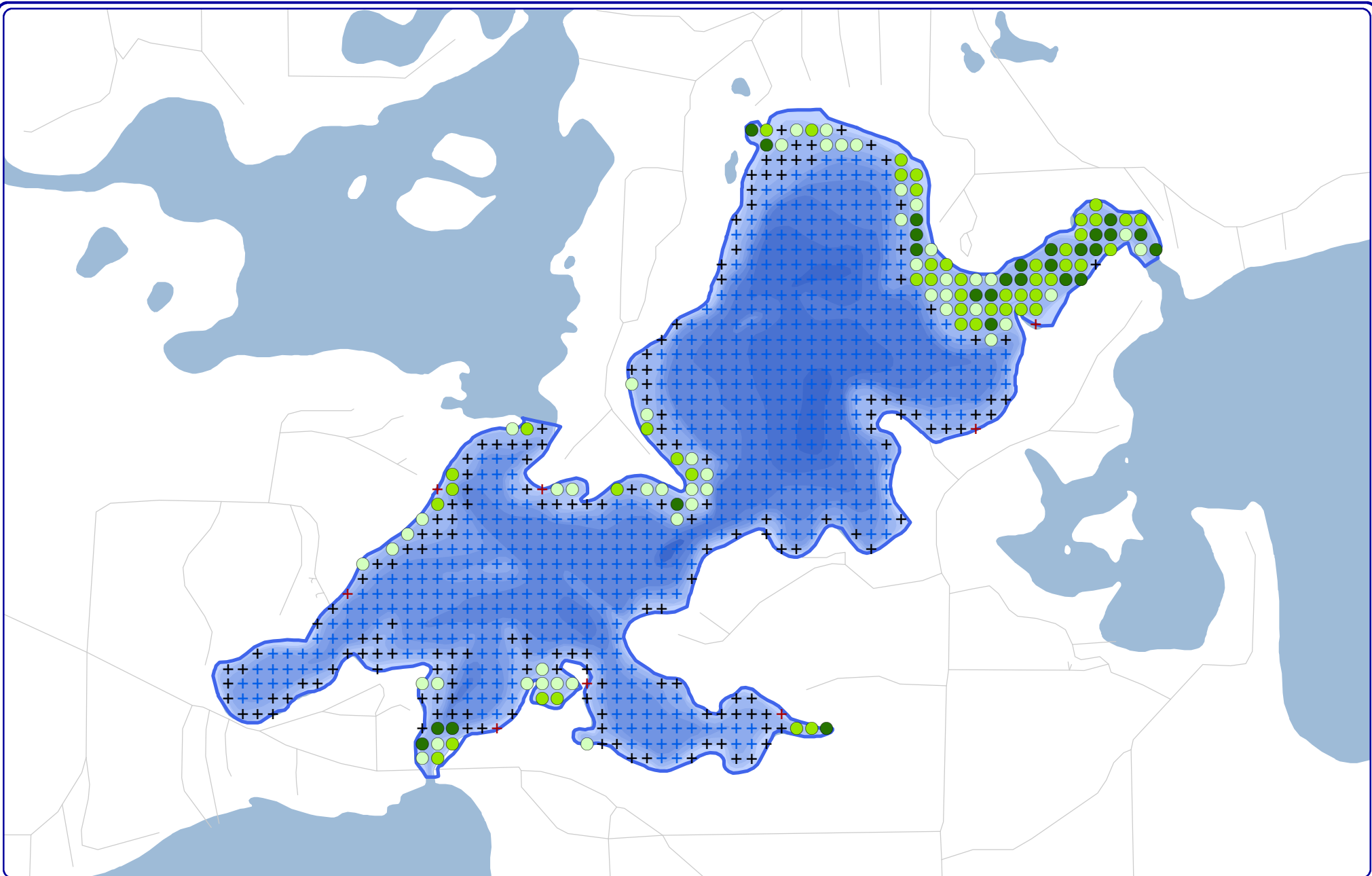
**Legend**

- 2-8 Inches, No Branches
- 2-8 Inches, Minimal Branches
- 2-8 Inches, Moderate Branches
- 2-8 Inches, Full Canopy (none)
- >8 Inches, No Branches
- >8 Inches, Minimal Branches (none)
- >8 Inches, Moderate Branches
- >8 Inches, Full Canopy
- Cluster

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Sources:  
 Shoreline Assessment: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map Date: September 24, 2013  
 Filename: Spider\_Map2\_CWH\_2012.mxd

Spider Lake - Map 2  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Course Woody Habitat**



Project Location in Wisconsin

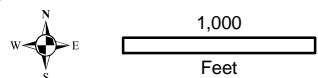
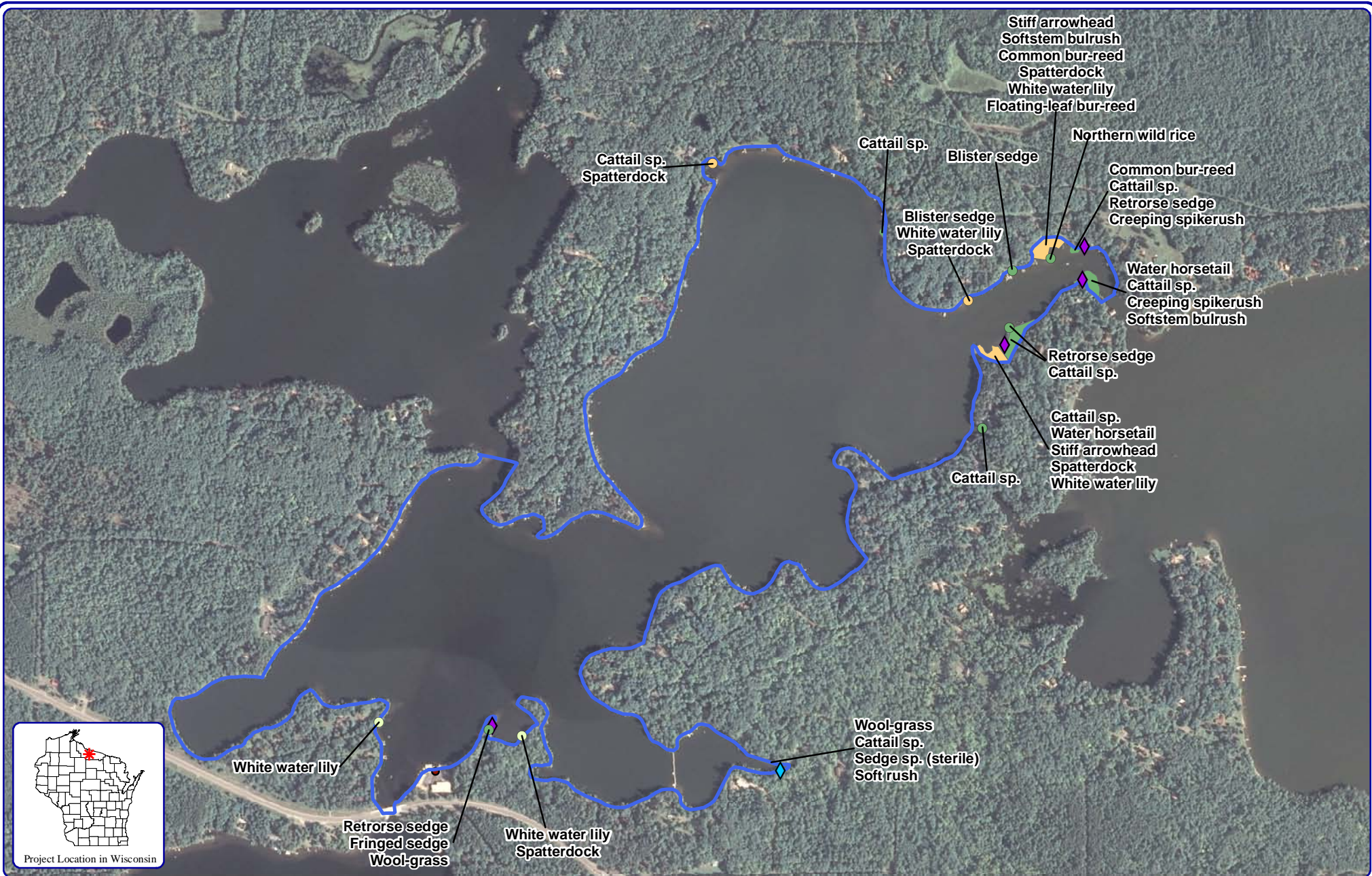
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Sources:  
 Aquatic Plant Survey: Onterra, 2012  
 Roads and Hydro: WDNR  
 Map Date: September 24, 2013  
 Filename: Spider\_Map3\_TREPI\_2012.mxd

**Legend**  
 2012 Point-intercept Survey

- + No Vegetation
- ⊕ Too Deep (Below Max Depth of Plants)
- Total Rake Fullness = 1
- ⊕ Non-navigable
- Total Rake Fullness = 2
- Total Rake Fullness = 3

Spider Lake - Map 3  
 Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin  
**Aquatic Plant Distribution**



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Sources:  
 Aquatic Plants: Onterra, 2012  
 Orthophotography: NAIP, 2010  
 Map date: December 11, 2012  
 Filename: Spider\_Map4\_Comm\_2012.mxd

**Small Plant Communities**

- Emergent
- Floating-leaf
- Mixed Floating-leaf & Emergent

**Legend**

**Large Plant Communities**

- Emergent
- Floating-leaf
- Mixed Floating-leaf & Emergent
- Adjacent Wetland Habitat

**Exotic Plant Communities**

- ◆ Purple loosestrife
- ◆ Common forget-me-not

**Spider Lake - Map 4**

Manitowish Waters  
 Chain of Lakes  
 Vilas County, Wisconsin

**Emergent & Floating-leaf  
 Aquatic Plant Communities**