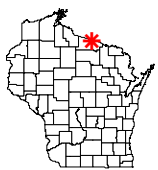




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 www.onterra-eco.com

Sources:
 Roads and Hydro: WDNR
 Map Date: November 3, 2015
 Filename: Forest_Vilas_location.mxd



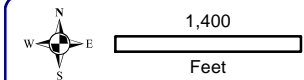
Project Location in Wisconsin

Legend

-  Forest Lake ~ 442 acres
 Based upon 2013 Orthophotography
-  Public Boat Landing

Map 1

Forest Lake
 Vilas County, Wisconsin
**Project Location
 & Lake Boundary**



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Sources:
 Hydro: WDNR
 Bathymetry: Onterra 2016
 Orthophotography: NAIP 2015
 Land Cover: NLCD 2011
 Watershed Boundaries: Onterra 2016
 Map Date: April 12, 2017
 Filename: ForestVilas_Watershed.mxd



Project Location in Wisconsin

Legend
 Land Cover Types

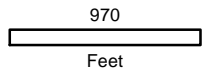
- Forest
- Forested Wetlands
- Wetlands
- Open Water
- Rural Open Space
- Pasture/Grass
- Row Crops
- Rural Residential
- Medium Density Urban

Forest Lake Watershed Boundary

Map 2

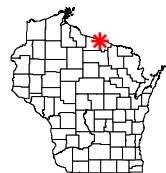
Forest Lake
 Vilas County, Wisconsin

**Watershed &
 Land Cover Types**



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Sources:
 Federal Lands: USDA Forest Service
 Hydro, State Land and Roads: WDNR
 Aquatic Plant Survey: Onterra, 2016
 Map Date: November 22, 2016
 Filename: ForestVilas_SCA_2016.mxd

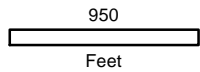


Project Location in Wisconsin

Legend

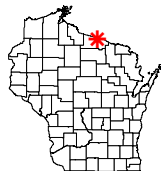
- Natural/Undeveloped
- Developed-Natural
- Developed-Semi-Natural
- Developed-Unnatural
- Urbanized
- Seawall
- Rip-Rap
- Masonry/Wood

Map 3
 Forest Lake
 Vilas County, Wisconsin
**2016 Shoreland
 Condition**



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Sources:
 Federal Lands: USDA Forest Service
 Hydro, State Land and Roads: WDNR
 Aquatic Plant Survey: Onterra, 2016
Map Date: November 22, 2016
 Filename: ForestVilas_CWH_2016.mxd



Project Location in Wisconsin

Legend

2-8 Inch Pieces

- No Branches
- Minimal Branches
- Moderate Branches
- Full Canopy

8+ Inch Pieces

- No Branches
- Minimal Branches
- Moderate Branches
- Full Canopy

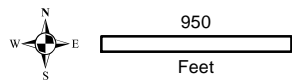
Cluster of Pieces

- No Branches (*None*)
- Minimal Branches
- Moderate Branches
- Full Canopy (*None*)

Map 4

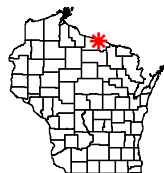
Forest Lake
 Vilas County, Wisconsin

2016 Coarse Woody Habitat Survey Results



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Sources:
 Hydro: WDNR
 Substrate Hardness: Onterra 2016
 Orthophotography: NAIP 2015
 Map Date: April 12, 2017
 Filename: ForestVilas_Acoustic_Sediment.mxd

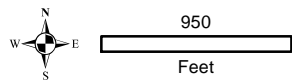
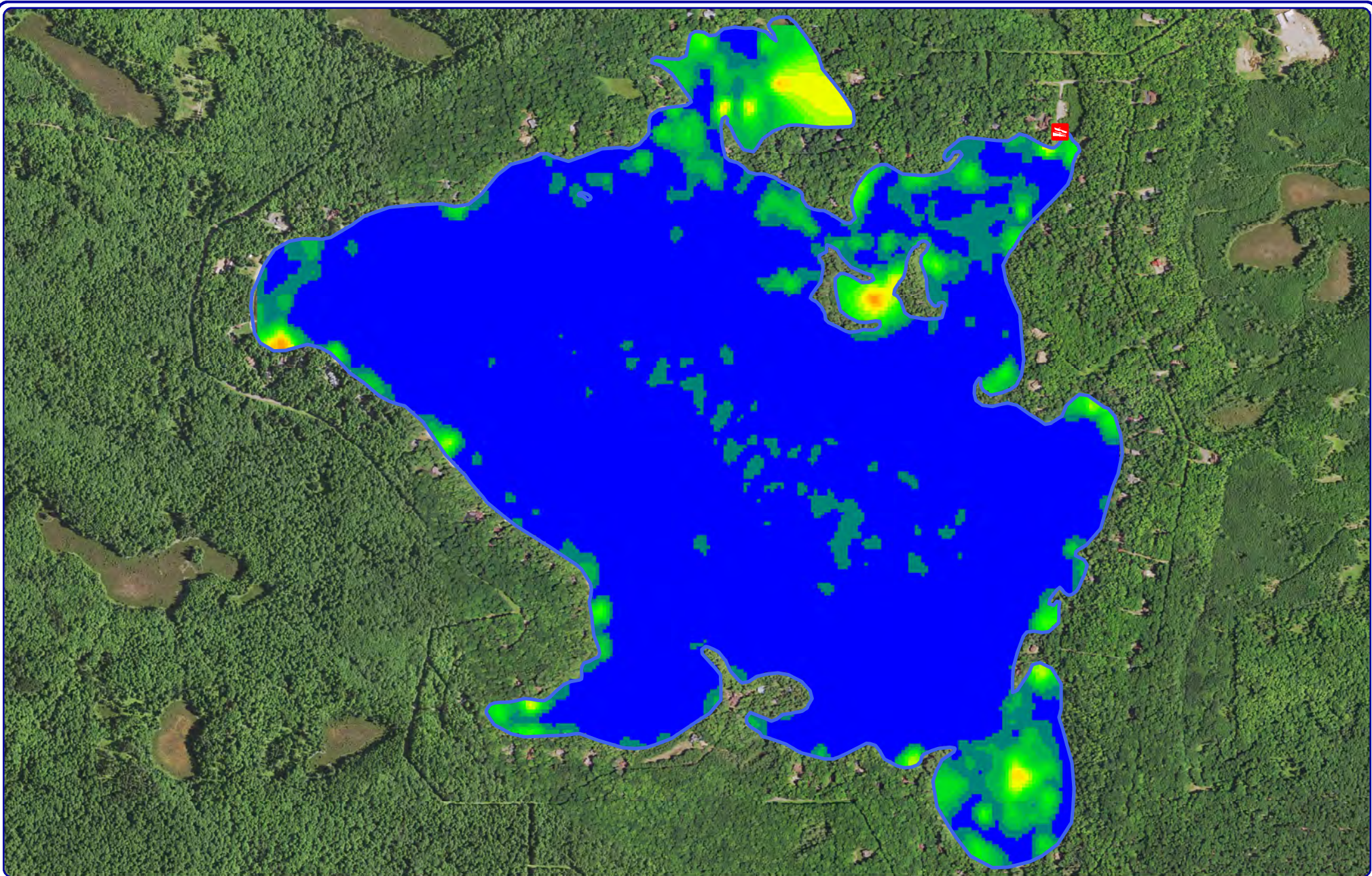


Project Location in Wisconsin

Legend



Map 5
 Forest Lake
 Vilas County, Wisconsin
**2016 Bio-Acoustic
 Survey Results -
 Substrate Hardness**



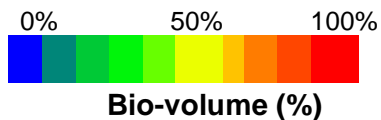
Onterra LLC
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 920.338.8860
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Sources:
 Hydro: WDNR
 Bio-Volume: Onterra 2016
 Orthophotography: NAIP 2015
 Map Date: April 12, 2017
 Filename: ForestVilas_Acoustic_Vegetation.mxd

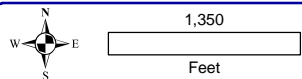
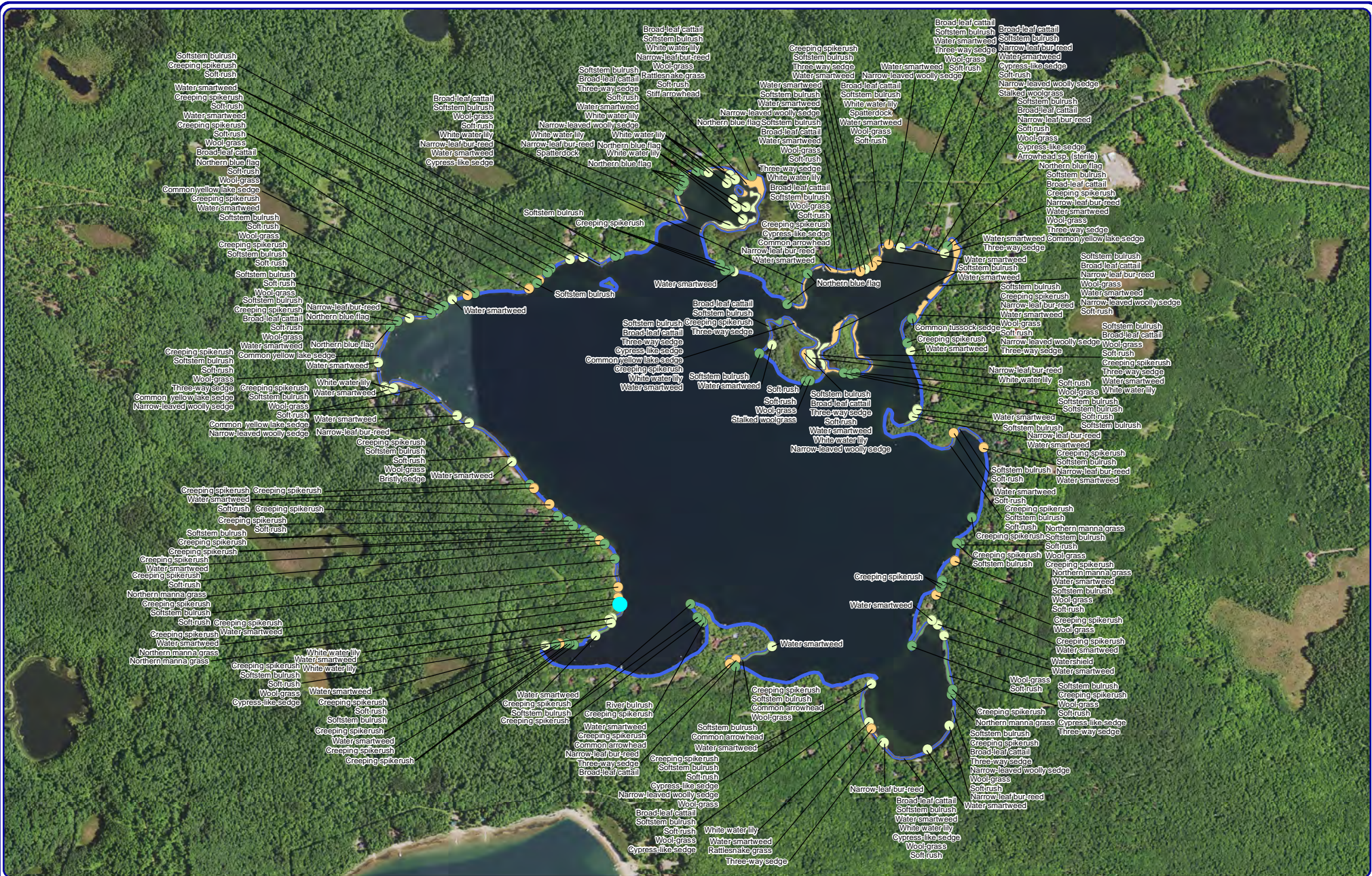


Project Location in Wisconsin

Legend



Map 6
 Forest Lake
 Vilas County, Wisconsin
**2016 Bio-Acoustic
 Survey Results -
 Aquatic Plant Bio-Volume**



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Sources:
 Aquatic Plants: Onterra, 2016
 Orthophotography: NAIP, 2015
Map date: November 7, 2016
 Filename: ForestVilas_Comm_2016.mxd

Extent of large map shown in red.

Legend

Small Plant Communities

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

Large Plant Communities

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

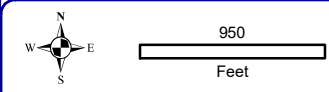
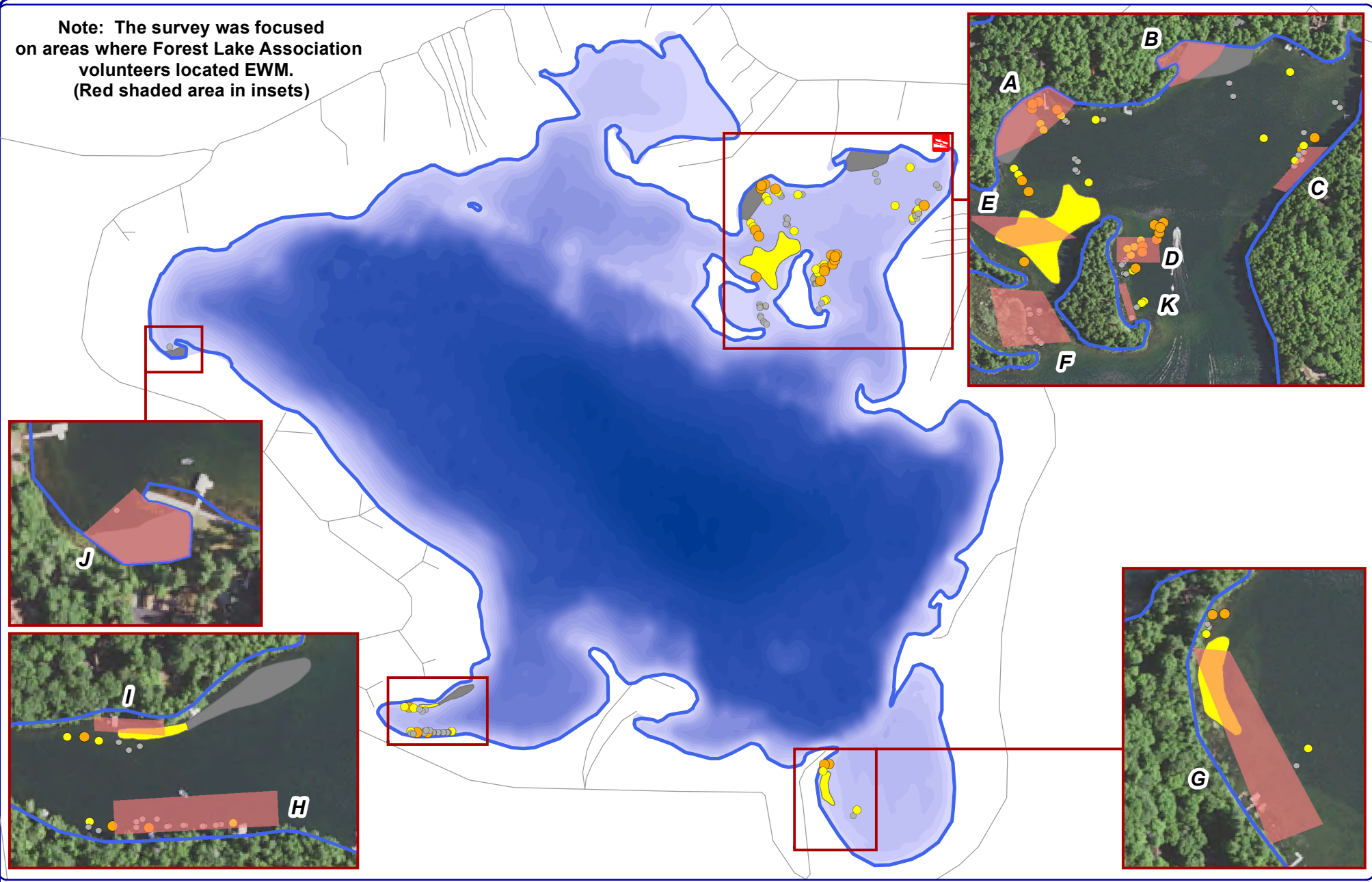
Map 7

Forest Lake

Vilas County, Wisconsin

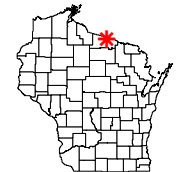
**Aquatic Plant
 Communities**

Note: The survey was focused on areas where Forest Lake Association volunteers located EWM. (Red shaded area in insets)



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Sources:
 Roads and Hydro: WDNR
 Bathymetry: Onterra, 2016;
 processed by C-Map USA
 EWM Survey: Onterra, 2018
 Map Date: October 17, 2018 JLW
 Filename: ForestVilas_EWMFB_Oct18.mxd



Project Location in Wisconsin

Legend

- Highly Scattered (*none found*)
- Dominant
- Highly Dominant (*none found*)
- Surface Matting (*none found*)
- Single or Few Plants
- Clumps of Plants
- Small Plant Colony
- Public Access Location

Map 8
 Forest Lake
 Vilas County, Wisconsin
**October 2018 Focused
 EWM Survey Results**