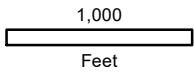


City of Clintonville

45



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Sources:
 Roads and Hydro: WDNR
 Map Date: March 10, 2023 JMB



Project Location in Wisconsin

Legend



Pigeon Lake ~ 173 acres
 WDNR Definition



Point-Intercept Survey Location
 36-meter spacing, 551 total points



Public Access



Pigeon Lake Dam

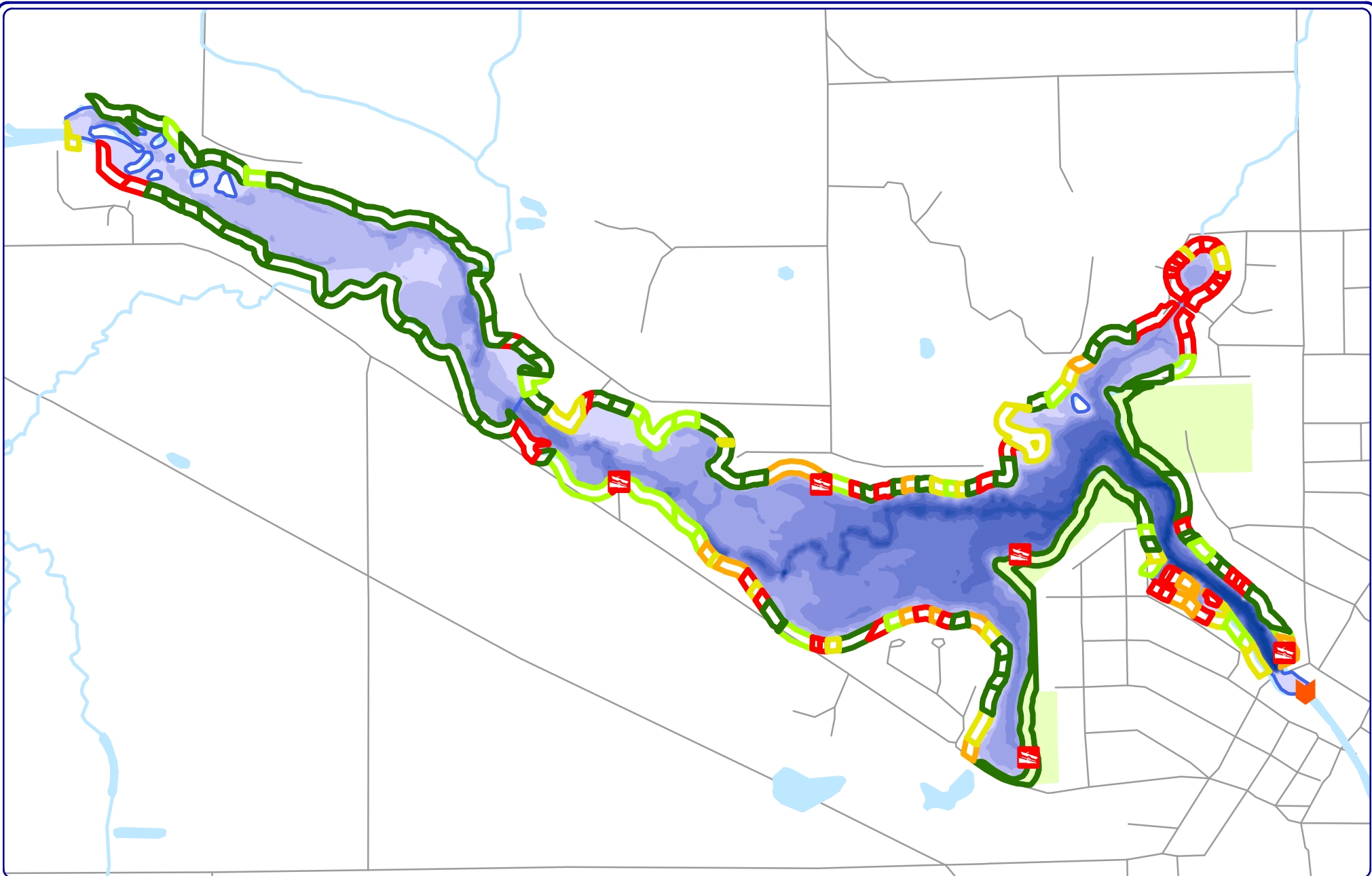


City of Clintonville

Map 1

Pigeon Lake
 Waupaca County, Wisconsin

Project Location & Lake Boundaries



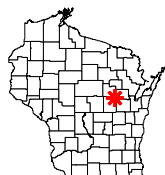
1,100

Feet

Onterra LLC
Lake Management Planning








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Sources:
Bathymetry: Onterra, 2021
Parcel Delineation: Onterra, 2022
Map Date: December 13th, 2022 K.L.W.
Filename: PigeonWaupaca_SA_Canopy_2022.mxd

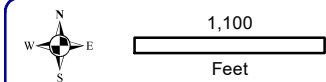
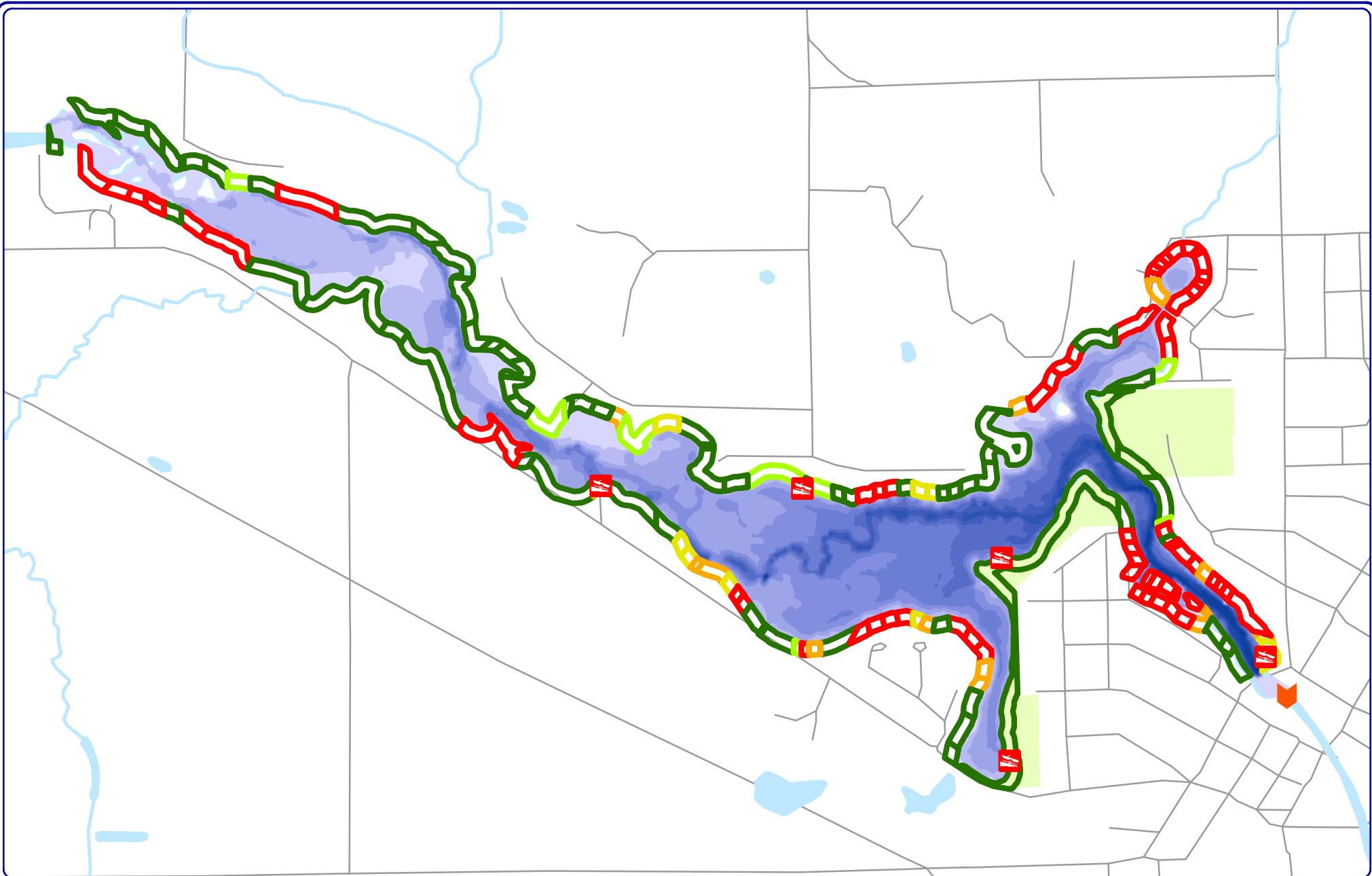


Project Location in Wisconsin

Percent Layer

-  81 - 100%
-  61 - 80%
-  41 - 60%
-  21 - 40%
-  0 - 20%
-  Local Road
-  City of Clintonville Property

Map 2
Pigeon Lake
Waupaca County, Wisconsin
Percent Canopy Cover

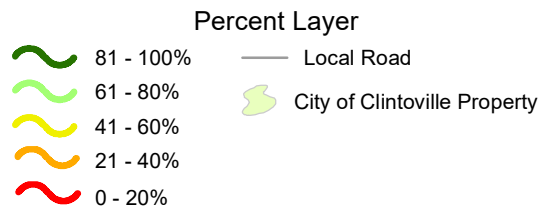


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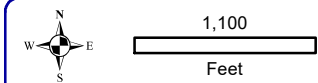
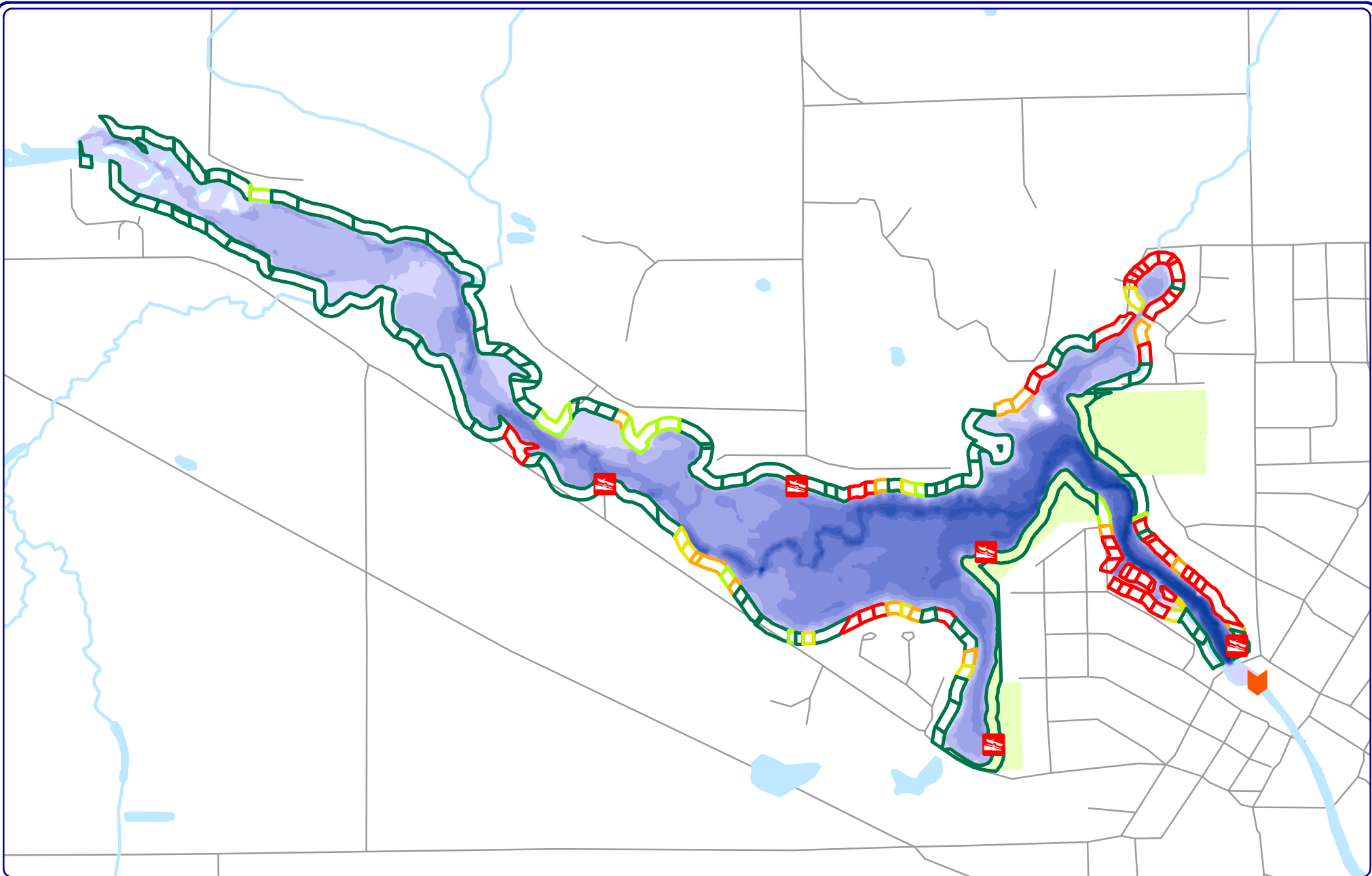
Sources:
 Bathymetry: Onterra, 2021
 Parcel Delineation: Onterra, 2022
 Map Date: December 13th, 2022 K.L.W.
 Filename: PigeonWaupaca_SA_ShrubHerb.mxd



Project Location in Wisconsin



Map 3
Pigeon Lake
 Waupaca County, Wisconsin
Percent Shrub
and Herbaceous Cover

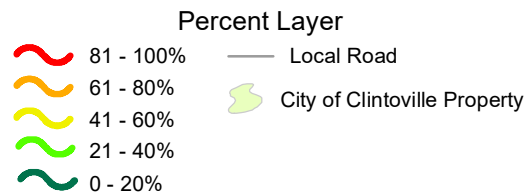


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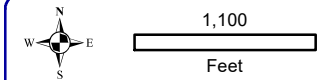
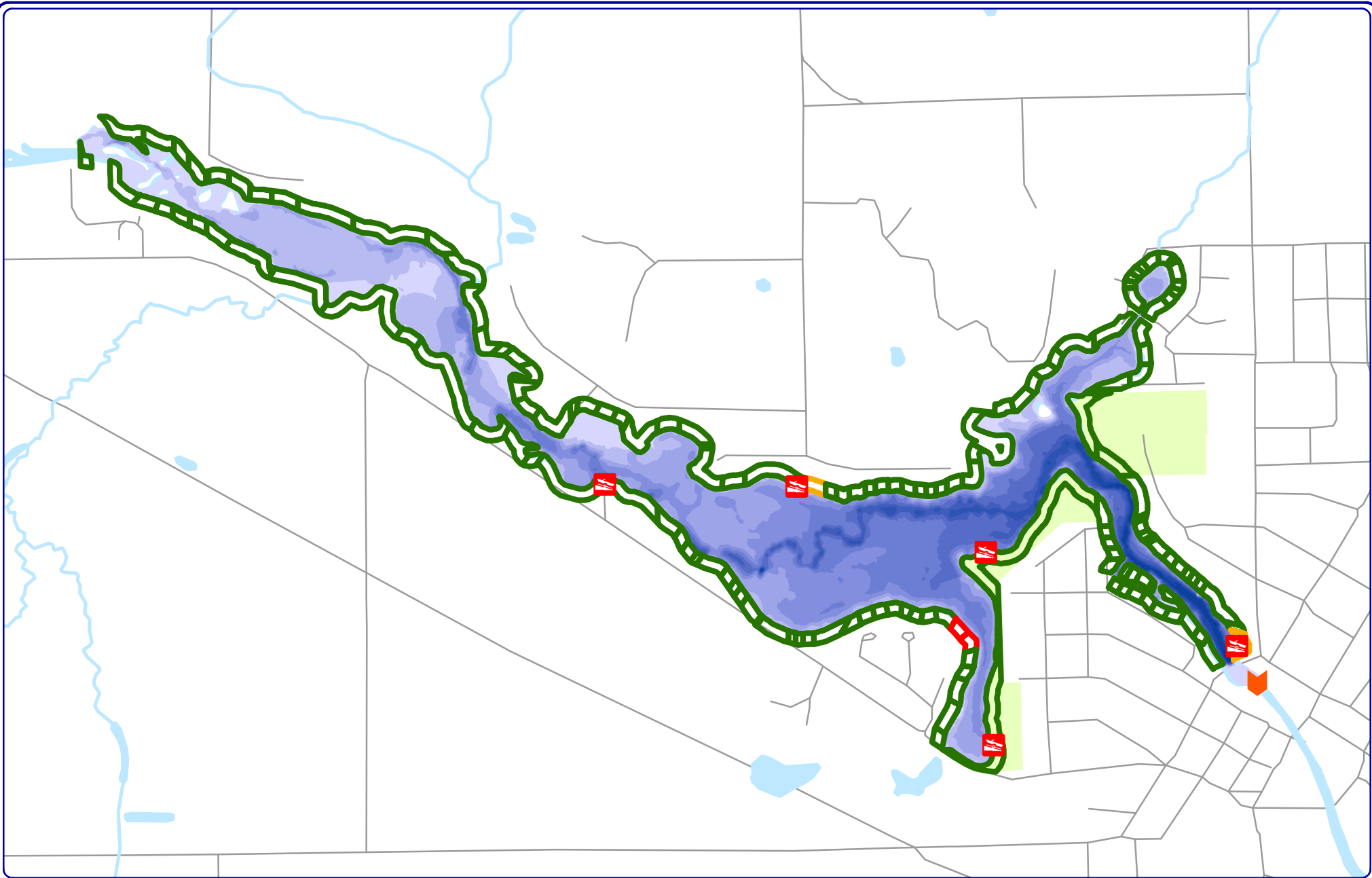
Sources:
 Bathymetry: Onterra, 2021
 Parcel Delineation: Onterra, 2022
 Map Date: December 13th, 2022, K.L.W.
 Filename: PigeonWaupaca_SA_Lawn_2022.mxd



Project Location in Wisconsin



Map 4
Pigeon Lake
 Waupaca County, Wisconsin
Percent Lawn
Cover

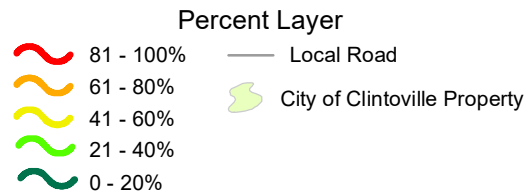


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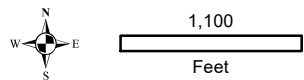
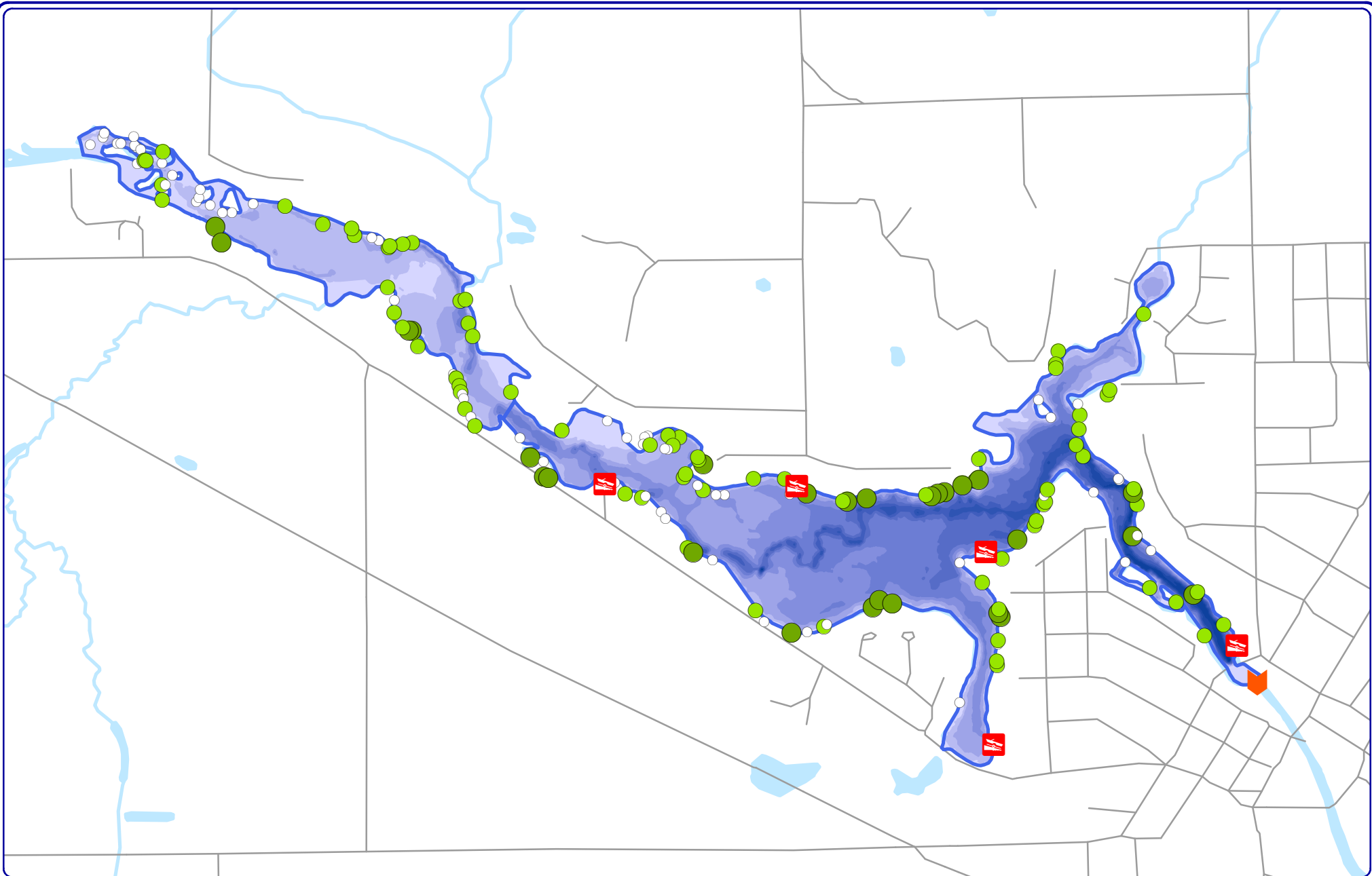
Sources:
 Bathymetry: Onterra, 2021
 Parcel Delineation: Onterra, 2022
 Map Date: December 13th, 2022 K.L.W.
 Filename: PigeonWaupaca_SA_ImpSurface_2022.mxd



Project Location in Wisconsin



Map 5
Pigeon Lake
 Waupaca County, Wisconsin
Percent Impervious
Surface Cover



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Sources:
 Bathymetry: Onterra, 2021
 Parcel Delineation: Onterra, 2022
 Map Date: December 13th, 2022 K.L.W
 Filename: PigeonWaupaca_CWH_2022.mxd

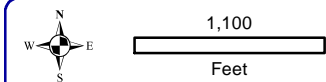
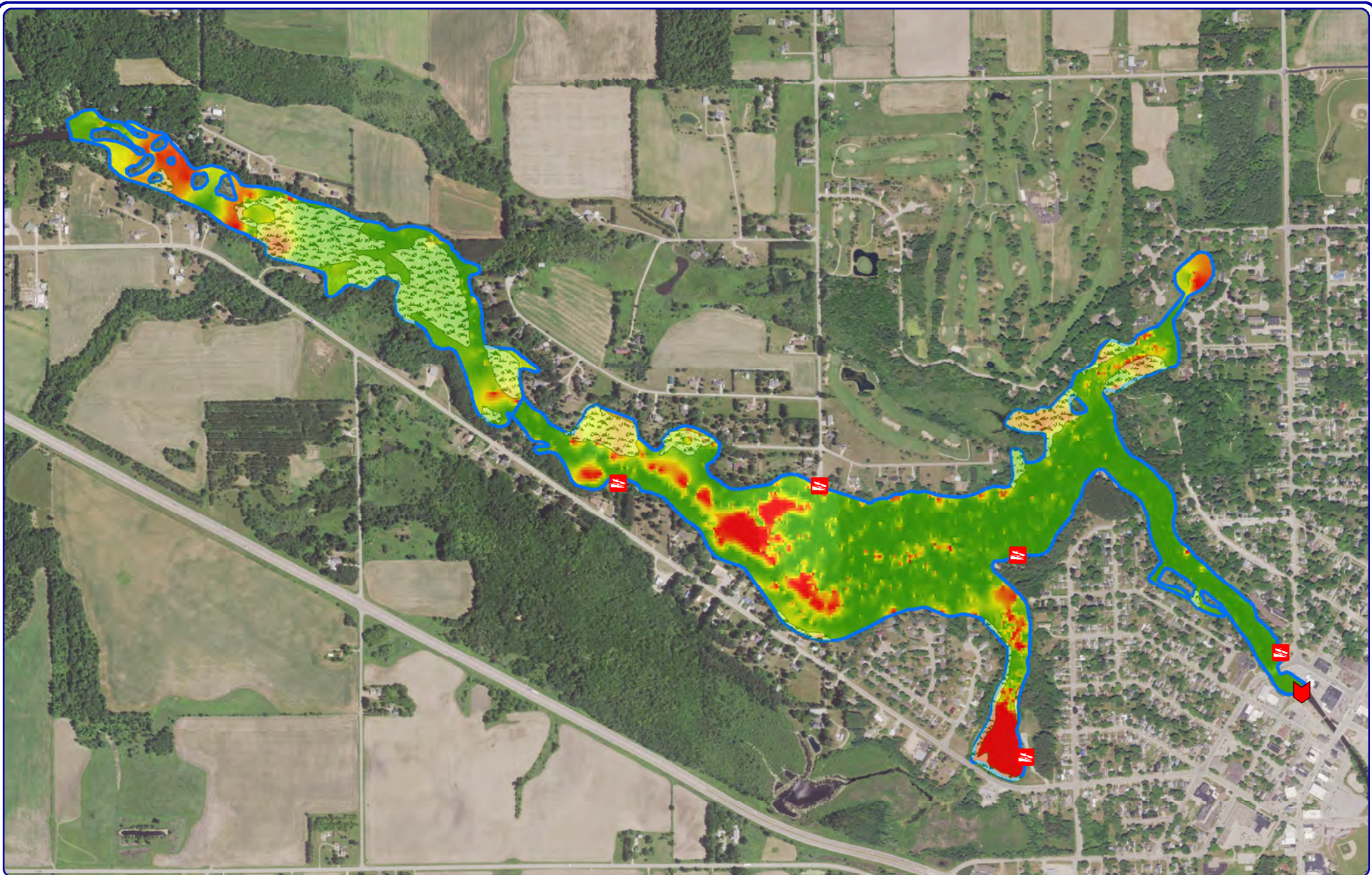


Project Location in Wisconsin

Legend

- No Branches
- Some Branches
- Full Canopy

Map 6
 Pigeon Lake
 Waupaca County, Wisconsin
**Coarse Woody
 Habitat**



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Sources:
 Roads and Hydro: WDNR
 Bathymetry: Onterra
 Aquatic Plants: Onterra, 2011
 Orthophotography: NAIP, Year
 Map Date: Month Date, Year Initials
 Filename: InsertFile.mxd

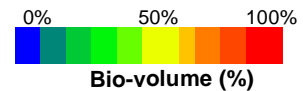


Project Location in Wisconsin

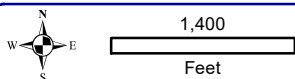
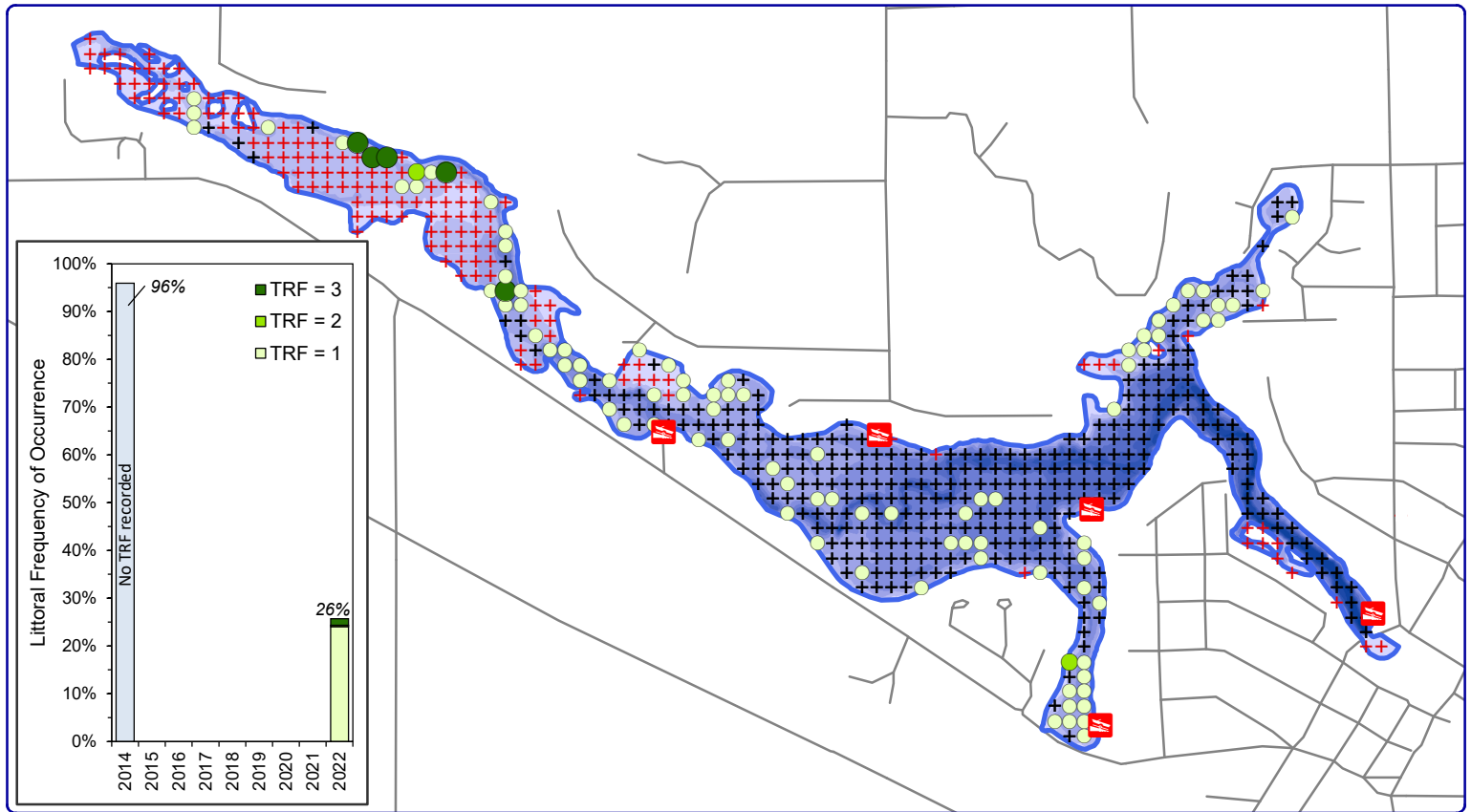
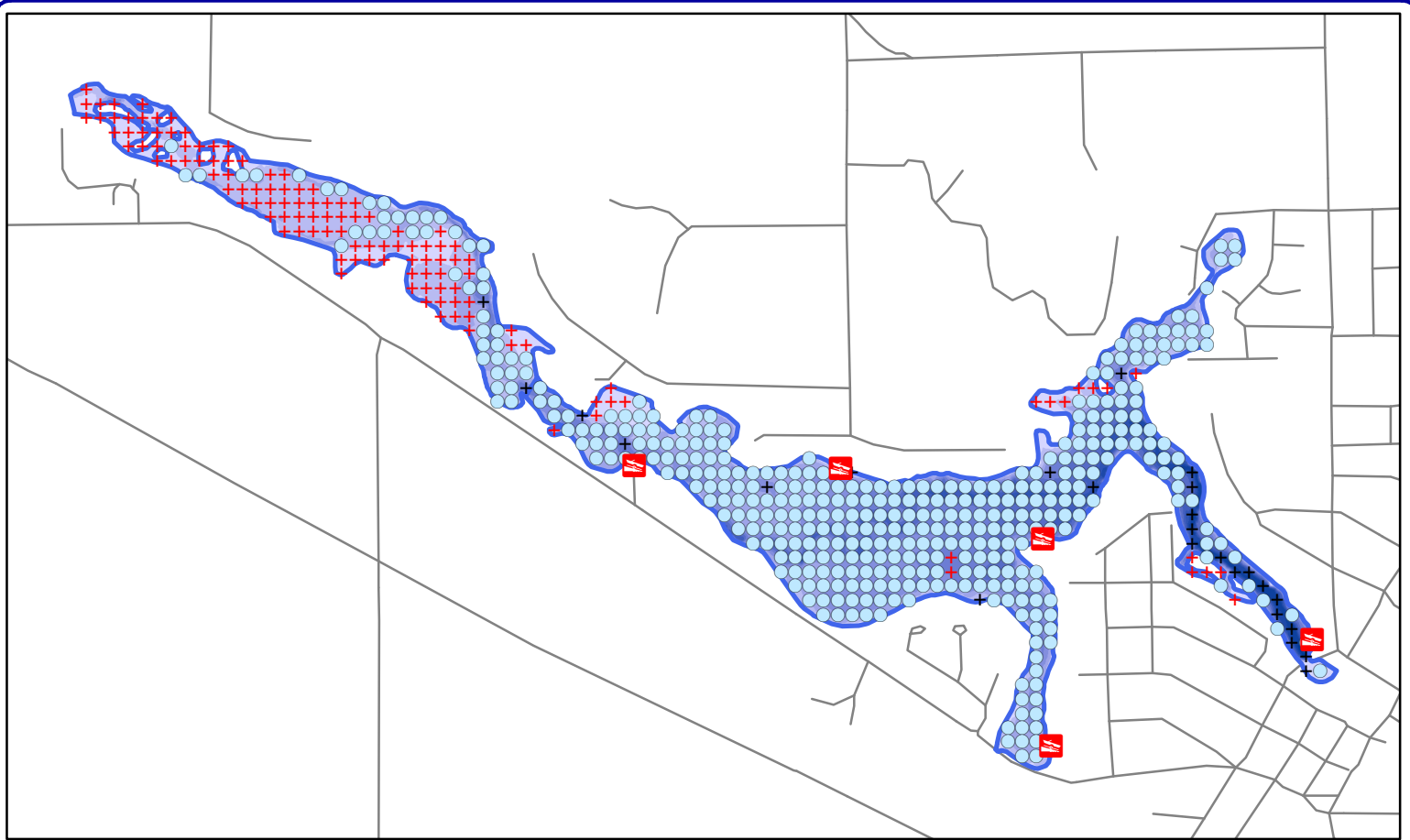


Emergent or
 Floating-leaf
 Communities

Legend



Map 7
 Pigeon Lake
 Waupaca County, Wisconsin
**April 2022 Acoustic
 Plant Bio-Volume**



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<Bolt>Sources:</Bolt>
 Hydro and Roads: WDNR
 Bathymetry: WDNR, digitized by Onterra
 Aquatic Plant Survey: 2014 & 2022
 Map Date: March 21, 2023 JMB
 Filename: Pigeon_TRFPI_2014-22.mxd



Project Location in Wisconsin

Legend

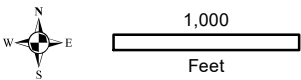
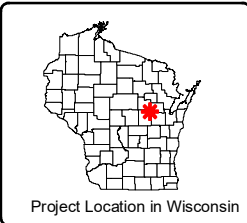
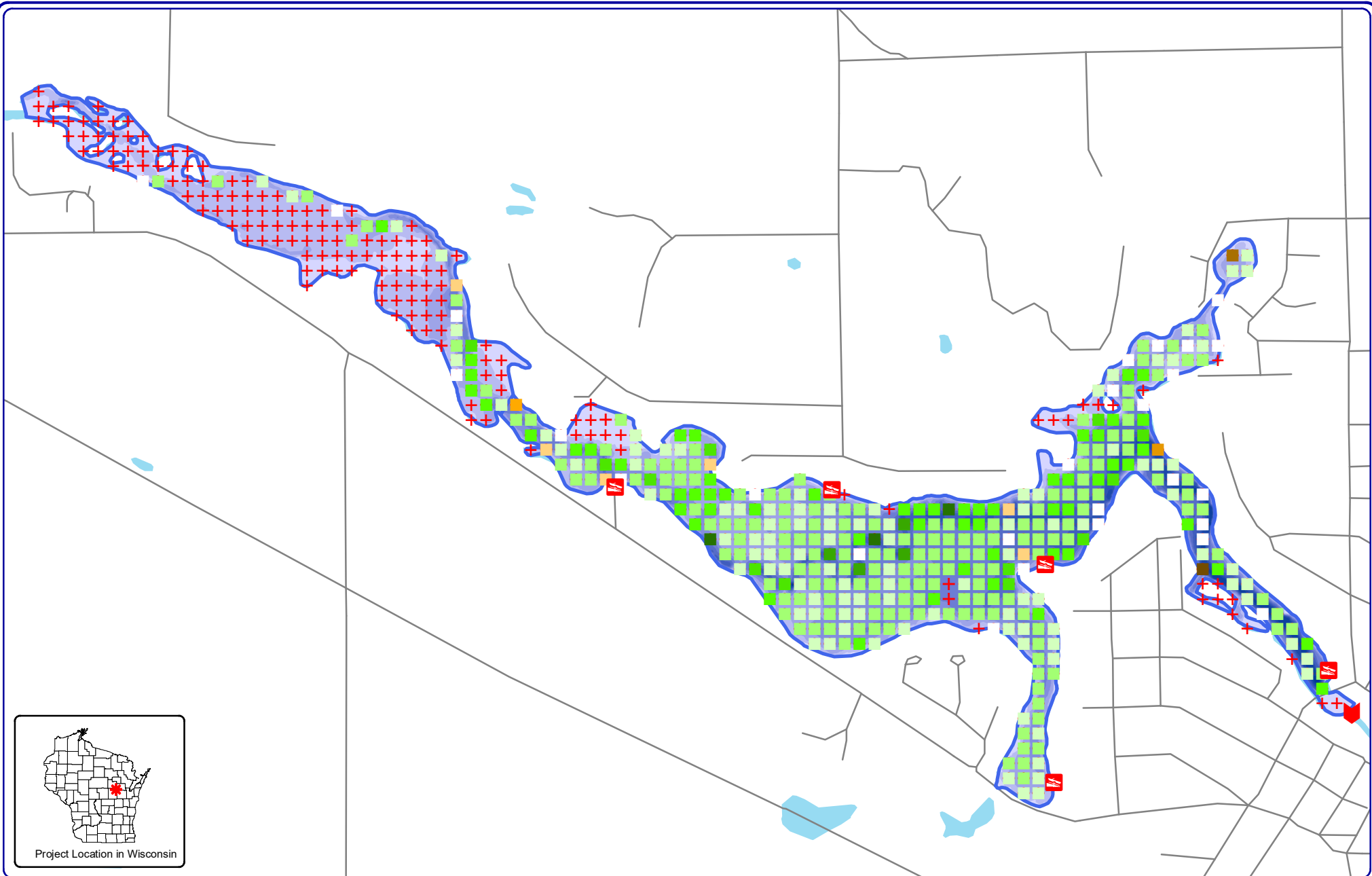
- Total Rake Fullness = 1
- Total Rake Fullness = 2
- Total Rake Fullness = 3
- Vegetation Present
- + No Vegetation
- + Non-Navigable

Map 8

Pigeon Lake

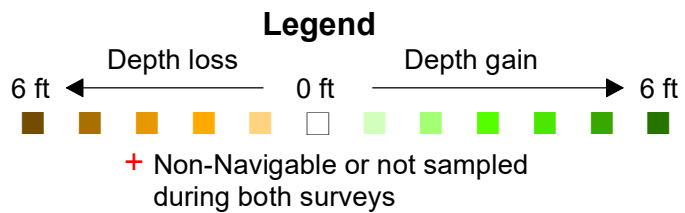
Waupaca County, Wisconsin

**2014 - 2022 PI Survey:
 Aquatic Plant Distribution**



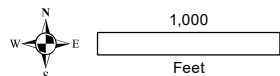
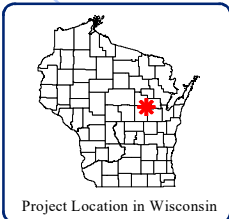
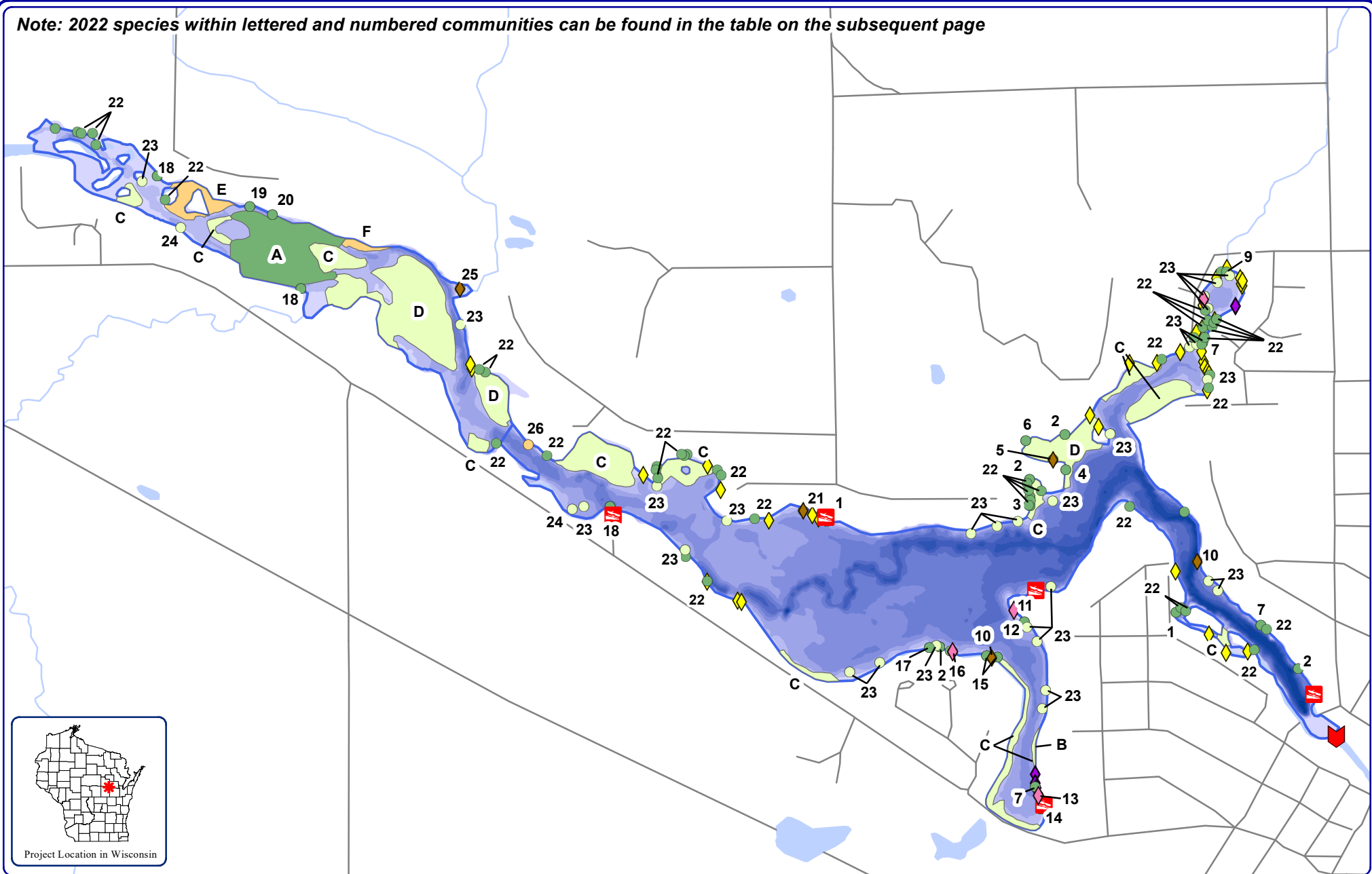
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Sources:
 Roads and Hydro: WDNR
 Bathymetry: Onterra
 Map Date: March 14, 2023 JMB
 Filename: MapX_Pigeon_DepthDifferences_2014-22.mxd



Map 9
Pigeon Lake
 Waupaca County, Wisconsin
Depth variations
between 2014 and 2022

Note: 2022 species within lettered and numbered communities can be found in the table on the subsequent page

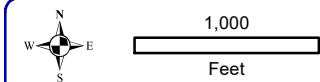
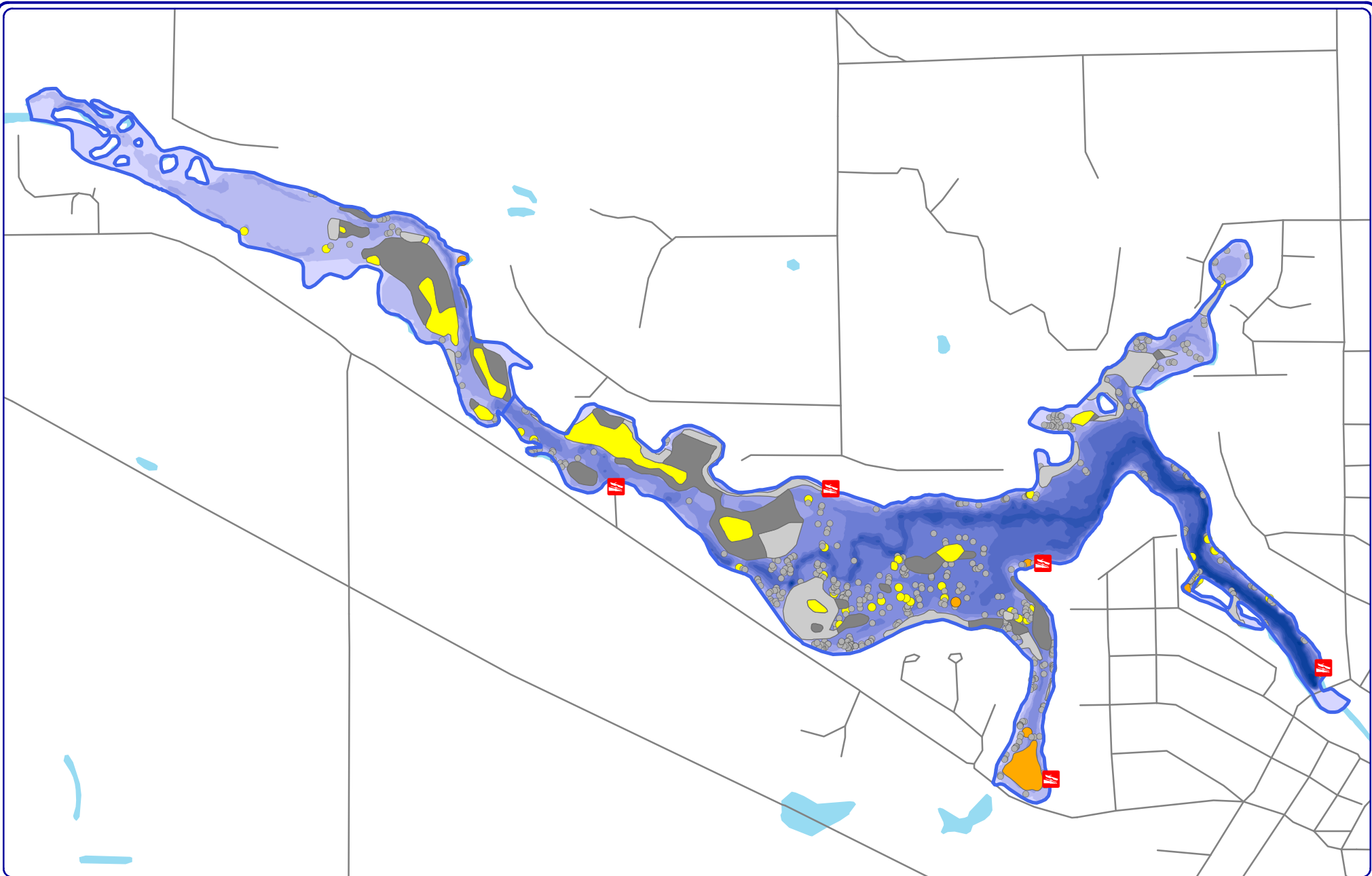


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Sources
 Hydro: WDNR
 Aquatic Plants: Onterra, 2022
 Orthophotography: NAIP, 2022
 Map date: November 30, 2022 JMB/KLW
 Filename: MapX_Pigeon_Waupaca_Comm_2022.mxd

- | Legend | |
|----------------------------------|----------------------------------|
| Small Plant Communities | Large Plant Communities |
| ● Emergent | ● Emergent |
| ● Floating-leaf | ● Floating-leaf |
| ● Mixed Floating-leaf & Emergent | ● Mixed Floating-leaf & Emergent |
| | Exotic Plant Communities |
| | ◆ Purple Loosestrife |
| | ◆ Pale-yellow Iris |
| | ◆ Reed Canary Grass |
| | ◆ Narrow-leaved Cattail |

Map 10
 Pigeon Lake
 Waupaca County, Wisconsin
**Aquatic Plant
 Communities**



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Sources:
 Roads and Hydro: WDNR
 Bathymetry: Onterra
 Aquatic Plants: Onterra, 2022

Map Date: October 27th, 2022 KLW
 Filename: Piegion_Waupaca_EWM_Sep2022.mxd

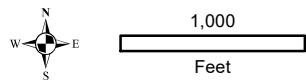
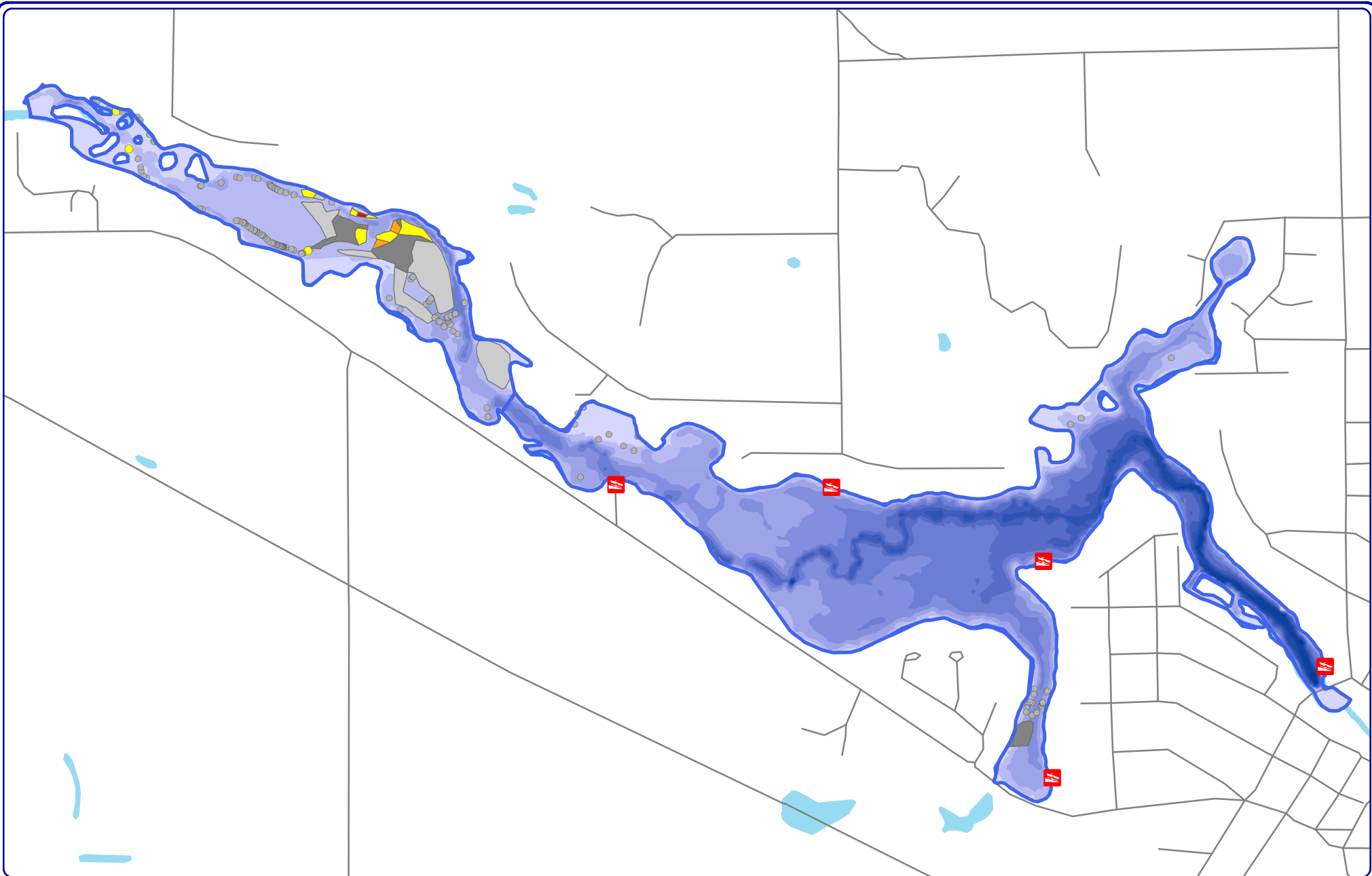


Project Location in Wisconsin

Legend
Eurasian watermilfoil Survey: October 3rd, 2022

Highly Scattered	Single or Few Plants	Public Boat Landing
Scattered	Clumps of Plants	
Dominant	Small Plant Colony	
Highly Dominant		
Surface Matting (None)		

Map 11
 Pigeon Lake
 Waupaca County, Wisconsin
Late Season EWM
2022 Survey Results













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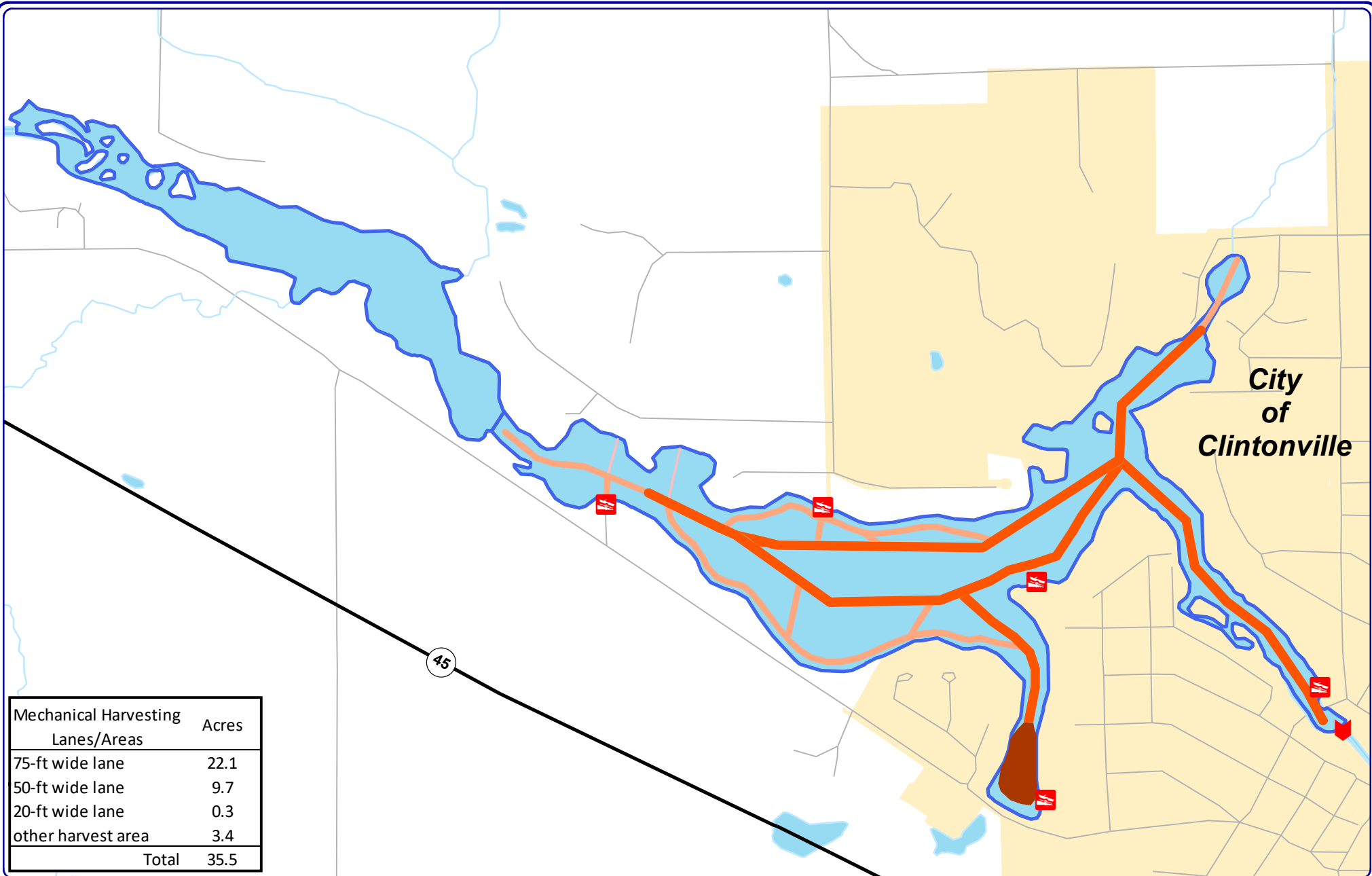
Sources:
 Roads and Hydro: WDNR
 Bathymetry: WDNR
 Aquatic Plants: Onterra, 2022
 Orthophotography: NAIP, 2020
 Map Date: July 7, 2022 TAH



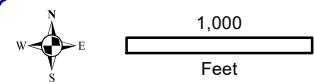
Project Location in Wisconsin

- Legend**
Curly-Leaf Pondweed (June 7th, 2022)
-  Highly Scattered
 -  Scattered
 -  Dominant
 -  Highly Dominant
 -  Surface Matting (None)
 -  Single or Few Plants
 -  Clumps of Plants
 -  Small Plant Colony
 -  Public Boat Landing
 -  Private Boat Landing

Map 12
Pigeon Lake
 Waupaca County, Wisconsin
June 2022 CLP
Survey Results



Mechanical Harvesting Lanes/Areas	Acres
75-ft wide lane	22.1
50-ft wide lane	9.7
20-ft wide lane	0.3
other harvest area	3.4
Total	35.5



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Sources:
 Roads and Hydro: WDNR
 Map Date: 10-10-2023 - TWH



Project Location in Wisconsin

Legend

- Other harvesting area (3.4 Acres)
- 75 foot wide lane (22.1 Acres)
- 50 foot wide lane (9.7 Acres)
- 20 foot wide lane (0.3 Acres)
- Public Access
- Pigeon Lake Dam
- City of Clintonville

Map 13
Pigeon Lake
 Waupaca County, Wisconsin
Mechanical Harvesting Plan