

Nemadji Uplands

Conservation Challenges:

- *Highly erodible red clay soils located on steep terrain
- *Water resource vulnerability to red clay suspension, that increases vulnerability to chemical pollution
- *Sedimentation in estuarine habitats of Lake Superior tributaries and fisheries
- *Conversion to timber and agricultural uses
- *Changes in agricultural practices
- *Increased draitiling makes stream flow more flashy, reduces groundwater
- *Fluctuating/declining groundwater levels
- *Invasive spp.: Emerald Ash Borer, buckthorns, Eurasian hon. eysuckle, garlic mustard, leafy spurge
- *Habitat fragmentation

Conservation Opportunities:

- * Watershed is engaged in natural resource management planning
- * Large amount of public land

Rare Species:

- A Species of Sedge
- Blunt-lobed Grape fern
- Carey's Smartweed
- Colonial Waterbird Nesting Site
- Creek Heelsplitter
- Eastern Hemlock
- Four-toed Salamander
- Halberd-leaved Tearthumb
- Lanceleaf Grapefern
- Leafless Water Milfoil
- Least Moonwort
- Matricary Grapefern
- Moschatel
- Necklace Spike Sedge
- Northern Brook Lamprey
- Northern Goshawk
- Spotted Salamander
- Thread-like Naiad
- Triangle Moonwort
- Three-Stamened Waterwort
- Upland Sandpiper
- Vasey's Pondweed
- White Adder's-mouth
- White Baneberry
- Wood Turtle

Existing Conservation Network:

State Parks:

State Forests:

Nemadji

SNAs:

Black Lake Bog

Wildlife Management Areas:

Blackhoof River
Storlie
Wrenshall

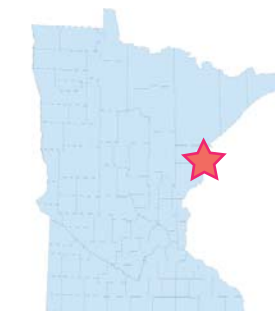
USFWS National Wildlife Refuge:

Private:

Nemadji Uplands Opportunity Area

Ecological Significance:

The Nemadji Uplands are part of a large, nearly roadless area in Pine County that extends eastward into Wisconsin. It is located near the intersection of the boreal forest biome, the northwestern sand barrens of Wisconsin, and southern deciduous forest. It provides habitat for a number of northern species including the timber wolf. Most of the southern portion of the uplands is a mosaic of forest, woodland, swamp, and wetland. The northern portion of the uplands becomes more incised as rivers draining toward Lake Superior cut into the friable, red clays found in the Nemadji watershed. The Nemadji River and tributaries to it and the St. Louis River have cut dramatic valleys into the landscape with cliffs of red clay left from ongoing slumping activity. The vulnerability of this landscape to erosion and human activity expose the rivers and the headwaters of Duluth Harbor and Lake Superior to high levels of sediment and other constituents. This fragile landscape merits protection of its middle and lower reaches to reduce the erosion and slumping that disturbs both the terrestrial and aquatic aspects of this landscape.



Counties:

Carlton
Pine

Rare Native Plant Communities:

- Black Spruce Bog
- Black Spruce Bog, Semi-Treed Subtype
- Bog Birch - Alder Shore Fen
- Red Oak - Sugar Maple - Basswood - (Bluebead Lily) Forest
- Sugar Maple - Basswood - (Bluebead Lily) Forest
- Willow - Dogwood Shrub Swamp

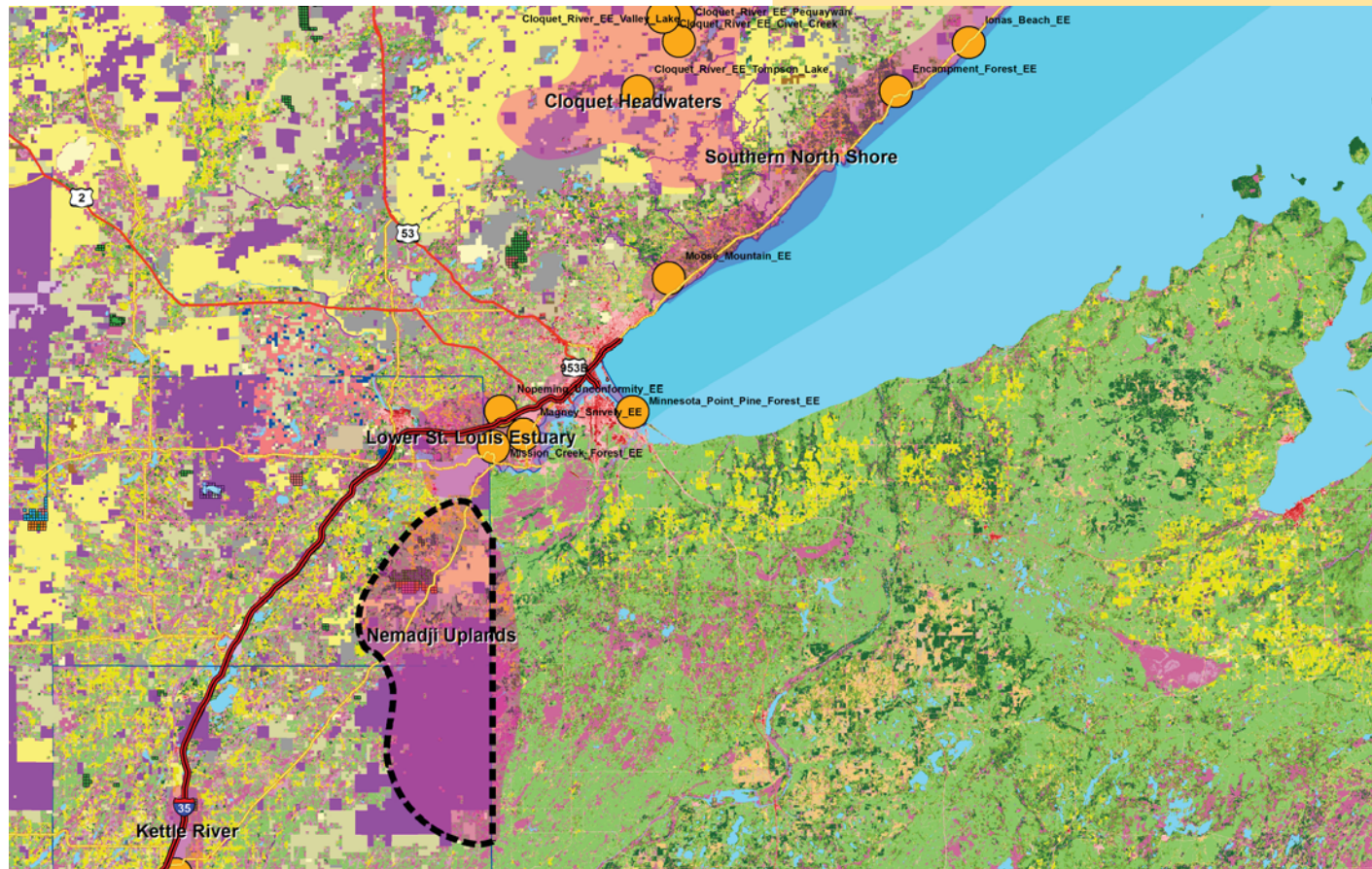
Ecological Evaluations:

- Dewey Thompson
- Aspen Parkland
- Lake Bronson Parkland
- Norway Dunes
- Peatland 2



Nemadji Uplands

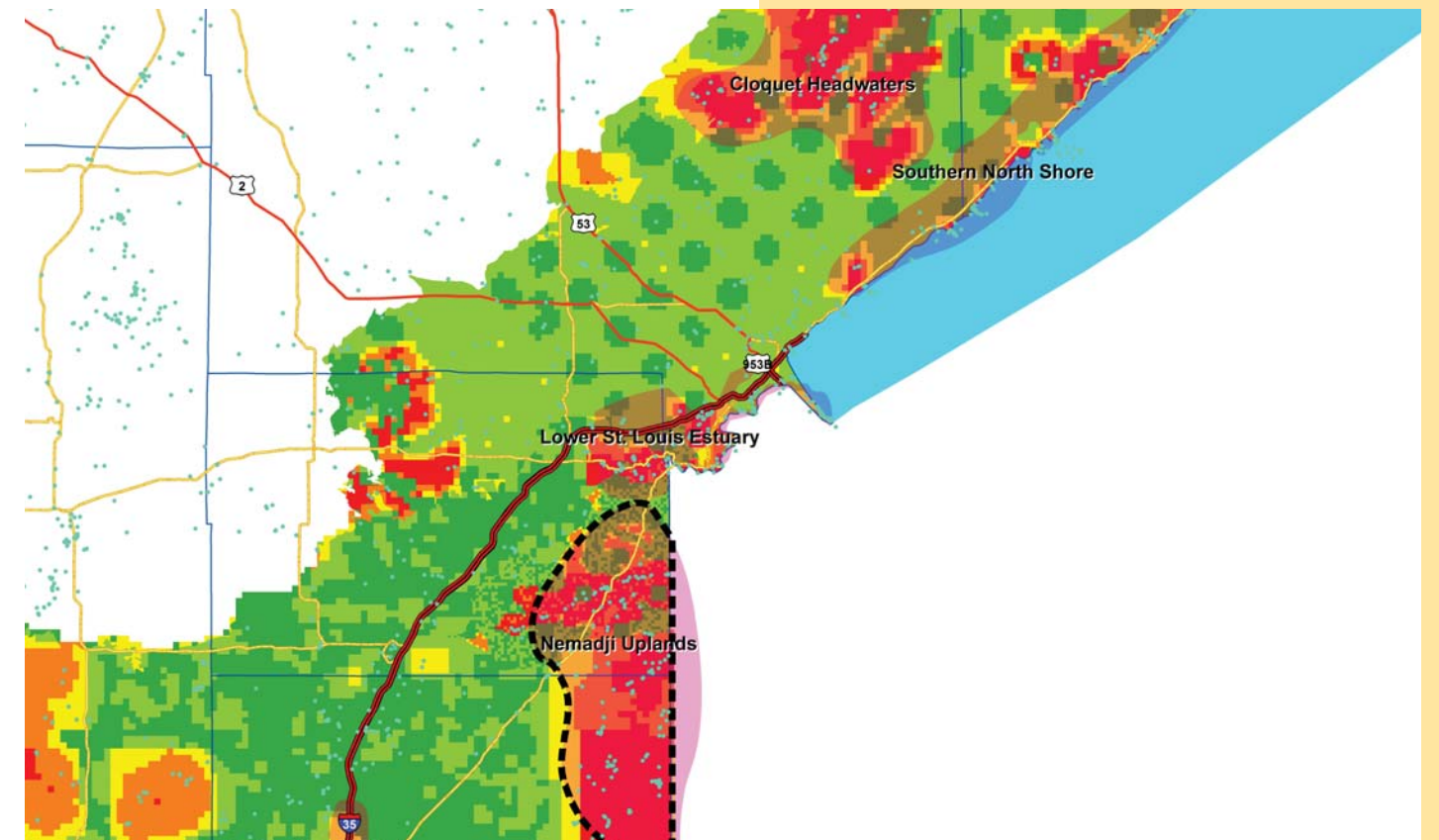
Ecological Evaluations, Land Cover, Public Ownership



Please see Legend at the front of the Opportunity Area Descriptions for a key to this map

Nemadji Uplands

Marxan Prioritization, Element Occurrences



Legend

- Profiled COA
 - Conservation Opportunity Area
 - Rare Feature
 - County Boundary
 - Large Lake
- ### Marxan Conservation Prioritization
- Lowest Priority
 - Low Priority
 - Medium Priority
 - High Priority
 - Highest Priority
 - Interstate Highway
 - U.S. Trunk Highway
 - MN Trunk Highway