#### **Conservation Challenges:**

#### **Conservation Opportunities:**

- \*Conversion to agricultural uses
- \*Changes in agricultural practices
- \*Increased draintiling makes stream flow more flashy, reduces groundwater infiltration
- \*Fluctuating/declining groundwater levels
- \*Invasive spp.: Buckthorns, Eurasian honeysuckle, garlic
- mustard, leafy spurge, EAB
- \*Habitat fragmentation
- \*Agricultural water pollutants/sedimentation
- \*Fire-dependent communities are likely to decline due to difficulty in restoring natural fire regimes

#### **Existing Conservation Network:**

**State Parks:** 

Mille Lacs Kathio

**State Forests:** Wealthwood

SNAs:

MIIIe Lacs Moraine

Wildlife Management Areas: Harold & Marie Deutsch

Ripple River White Fish

Private:

#### **Rare Species:**

**American Bittern Bald Eagle** Blanding's Turtle **Blunt-lobed Grapefern Bog Bluegrass** Butternut **Cerulean Warbler False Mermaid** Four-toed Salamander

Georgia Bulrush Goblin Fern

Halberd-leaved Tearthumb **Humped Bladderwort** 

Lanceleaf Grapefern Leafless Water Milfoil

**Least Moonwort** 

**Matricary Grapefern** 

Narrow-leaved Water Plantain Northern Barrens Tiger Beetle

Red-shouldered Hawk

Robbin's Spike-rush

**Snailseed Pondweed** 

Thread-like Najad

**Triangle Moonwort** 

Vasey's Pondweed

White Adder's-mouth



# Mille Lacs Moraine

### **Opportunity Area**

#### **Ecological Significance:**

While the Mille Lacs Moraine is an Eastern Broadleaf Forest community, it is located far enough to the north, that is has aspects more commonly seen within the Laurentian Mixed Forest. Wetlands receiving cold air drainage commonly have conifers such as tamarack, black spruce or white pine. White pine and balsam fir may also have a limited presence in upland communities too. The moraine lands provided a steeply rolling landscape that creates a matrix of wetlands, ponds, and small lakes. Much of the area remains uncultivated, and provides opportunities for conservation on a landscape scale. It also lies within the ecotone between Laurentian and Eastern Broadleaf provinces, and has a number of species that occur at the northern or southern edge of their ranges.



#### **Counties:**

Aitkin **Crow Wing** Mille Lacs Morrison

#### **Rare Native Plant Communities:**

Aspen - Ash Forest

Black Ash - Yellow Birch - Red Maple - Basswood

Swamp (Eastcentral)

Black Spruce Bog, Treed Subtype

Ice Deposition (Holocene)

Lake and Wetland Deposition (Holocene) Low Shrub Poor Fen

Native Plant Community, Undetermined Class

Northern Poor Fen

Red Oak - Basswood Forest (Calcareous Till) Rich Tamarack Swamp (Eastcentral)

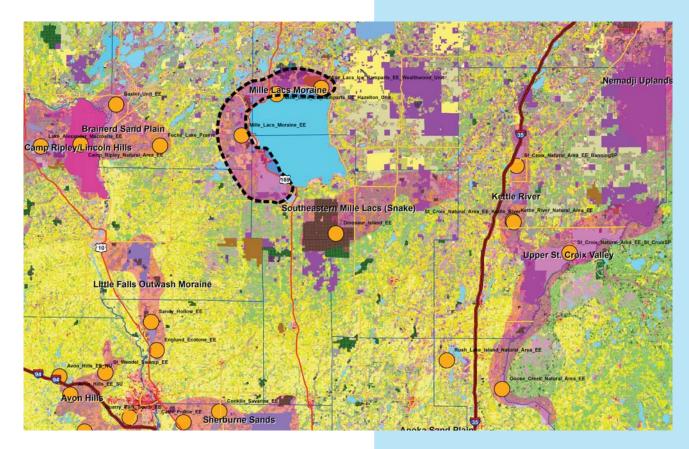
Sedge Meadow, Beaked Sedge Subtype

### **Ecological Evaluations:**

Mille Lacs Moraine Mille Lacs Ice Ramparts **Hazelton Unit Wealthwood Unit** 

# **Mille Lacs Moraine**

## **Ecological Evaluations, Land Cover, Public Ownership**



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

# **Mille Lacs Moraine**

## **Marxan Prioritization, Element Occurrences**

