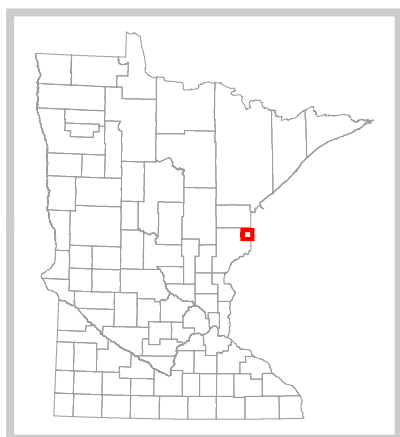


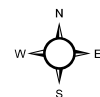
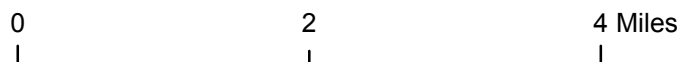
# HCVF Site 581400

## Ludwig - Belden, Pine County



**Legend**

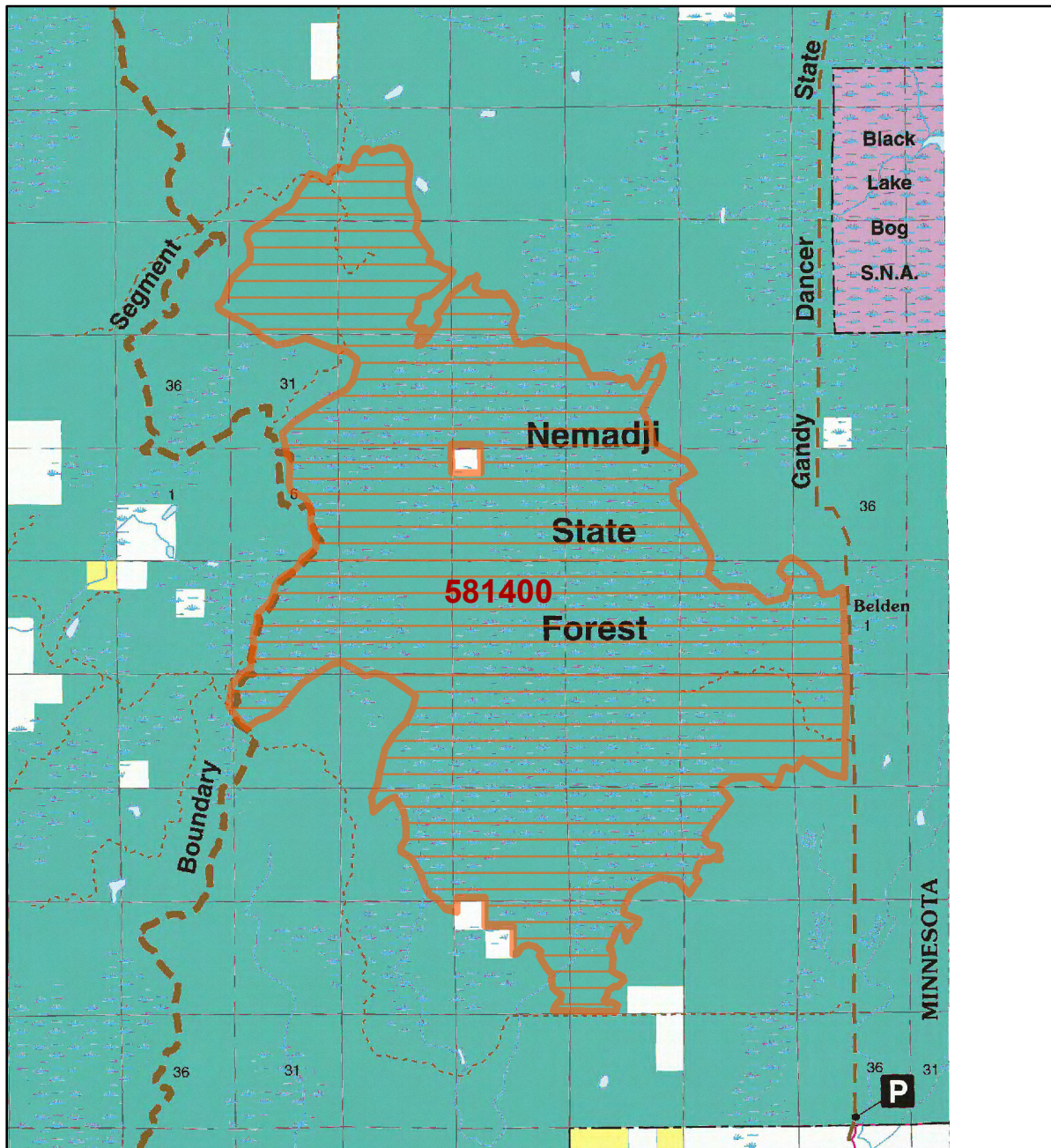
- Municipal, Township or Other Roads
- HCVF Site
- PLS Sections





# HCVF Site 581400

## Ludwig - Belden, Pine County



### LEGEND

HCVF Site

### MAP EXPLANATION

#### LAND OWNERSHIP

- County Land
- Recreation Area under 40 acres
- State Forest Land
- State Park and Recreation Land
- State Wildlife Management Area Land
- W.M.A.'s under 40 acres
- State Scientific & Natural Area Land
- S.N.A.'s under 40 acres
- National Waterfowl Production Area
- N.W.P.A.'s under 40 acres
- National Forest, Park, Wildlife Refuge & Recreation Land
- Bureau of Indian Affairs Land

#### BOUNDARIES

- County Unit Boundary
- State Unit Boundary
- National Unit Boundary

#### TRAILS AND FOREST ROADS

- State Trail
- State Forest Road

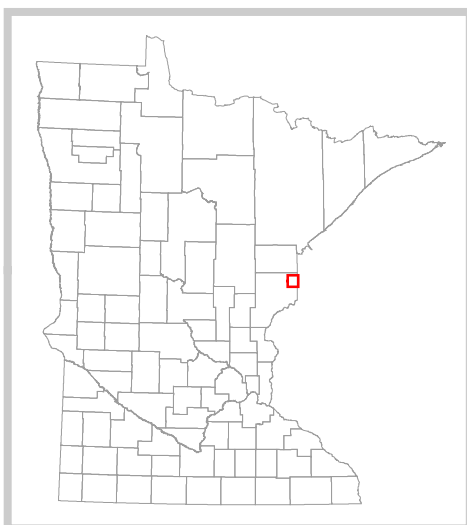
#### DESIGNATED WATERWAYS

- State Trout Stream
- State Canoe and Boating Route
- State Wild, Scenic & Recreational River (also designated Canoe & Boating Route)
- National Wild, Scenic & Recreational River (also designated Canoe & Boating Route)

#### FACILITIES

- D.N.R. Office
- Travel Information Center
- Rest Area (with facilities)
- Rest Area (limited facilities)
- Campground
- Watercraft Camping
- Equestrian Camping
- Water Access
- Carry-in Access
- Dam (on designated canoe route)
- Fishing Pier
- Overlook
- Parking
- Historic Site
- Geologic Feature
- Fish Hatchery
- Forestry Nursery
- National Great River Road
- State Great River Road

NOTE: Some of the features defined in this map explanation may not occur on the map.



The PRIM series was developed using funds provided through the Legislative Commission on Minnesota Resources (LCMR).

Base information was compiled from 1:100,000 series U.S. Geologic Survey planimetric maps.

Facility and ownership information was compiled from the following sources: Minnesota Department of Natural Resources, Minnesota Department of Transportation, State Planning Agency, Minnesota Historical Society and the respective counties.



0 2.5 5 Miles

*Land ownership categories on this map are in some cases outdated. HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.*



# HCVF Informational Report

Report Run: September 3, 2013

## General Information

**HCVF #: 581400**

**HCVF Name:** Ludwig - Belden

**Acres of HCVF site:** 13231.21

**County:** Pine

**Data edited by:** NE HCVF Workgroup

**Role:** NE HCVF Workgroup

**Date edited on:** 2013-07-26

**Corresponding Land Administrator(s):** DNR Forestry

**Management Unit Name(s) (if applicable):** Nemadji State Forest

## HCVF Summary

Large intact landscape of WSU ground moraine, some end moraine, topography with MHn upland islands in a very large forested peatland/swamp (Belden Swamp). This HCVF site lies within the largest remaining natural landscape in the WSU. State HCVF acres center on the expensive Belden Swamp and upland areas with designated old growth and concentrations of rare species. Most of the site is ground moraine although a finger of end-moraine occurs in the NW portion of the site in the Ludwig area. An esker fingers through the forested peatland in the far southern extent of the site. Belden Swamp is dominated black spruce bog (APn80) in the north and tamarack swamp in the south and black ash swamp and shrub swamp along the periphery. Belden Swamp is notable on a Statewide scale for a peatland of its size having no ditches or utility corridors bisecting it. Mineral soil uplands are dominated by northern hardwood forest (MHn35) with the esker covered by FDn43. Notable concentrations of rare salamanders, rare ferns, old-growth MHn, and a forest/peatland landscape >4,000 acres (HCV 3) that is almost entirely State owned.

### **HCVs known to be present that factored into HCVF designation.**

*FSC expects DNR to maintain HCVs within designated HCVFs. Because HCVF boundaries are not the same as the larger, multi-ownership MBS Sites, this list will differ from the values identified during the MBS Survey.*

HCV1b (S1 or S2 species): 2 Botrychium (spp.), 1 tree. HCV1e (Rare species concentration): 2 amphibians, 4 Botrychium., SGCN birds. HCV1f (Taxonomic group concentration): 2 amphibians, 4 Botrychium, SGCN birds. HCV2-LMFa (Large habitat block): Upland and lowland forest complex. HCV2-LMFbi (late-successional forest block): potential exists. HCV2-LMFbii (blocks with rare species): yes. HCV3c (Special S3 plant community): probable MHc47 and MHn47 types. HCV3e (Old-growth forest): NH. HCV3f (Primary forest): probable lowland conifer and small upland islands. HCV3g (Roadless area): best potential in Section.

## Management Considerations

**Overall management objectives for the entire HCVF:**

Maintain/enhance rare plant locations - maintain existing canopy cover and ground layer conditions. Maintain/enhance existing hemlock as a component within the forest matrix; enhance natural hemlock regeneration. Apply DNR salamander guidelines. Verify locations of S3 native plant communities within site. If present: Silvicultural prescriptions in rare native plant communities maintains or enhances the floristic, structural, and spatial components that define the native plant community; see SRM objective code CON1. Field verify potential primary forest occurrences. Field verify or research potential roadless conditions. Apply DNR HCV General Landscape Guidance.

**Management direction from the following sources was considered in developing the above recommendations:**

MLU SFRMP

**Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)?**  
\_No\_

## General Comments

*No information entered.*

*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually updated as new information becomes available. The lack of data listed for any geographic area should not be construed to mean that no significant features are present.*

*... Report End ...*