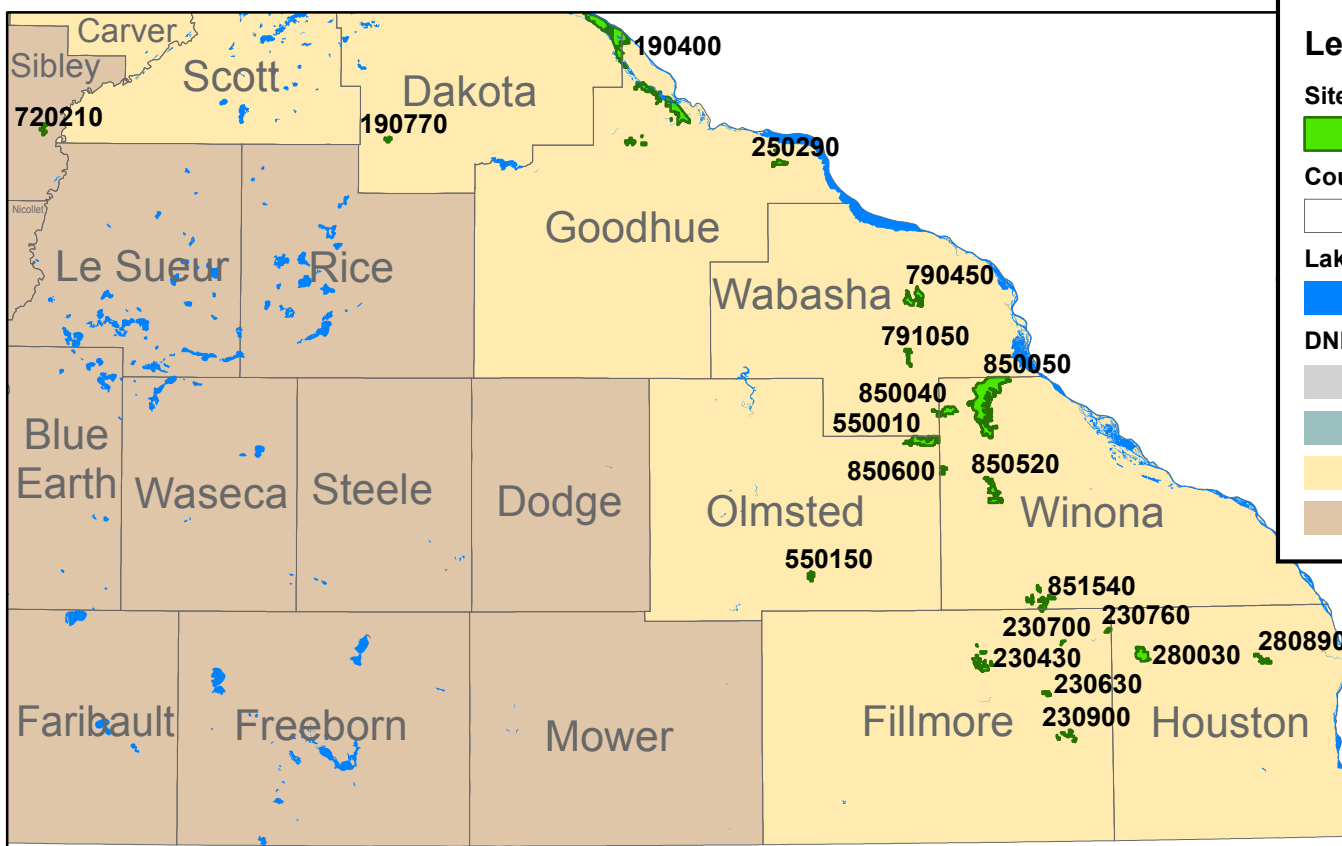
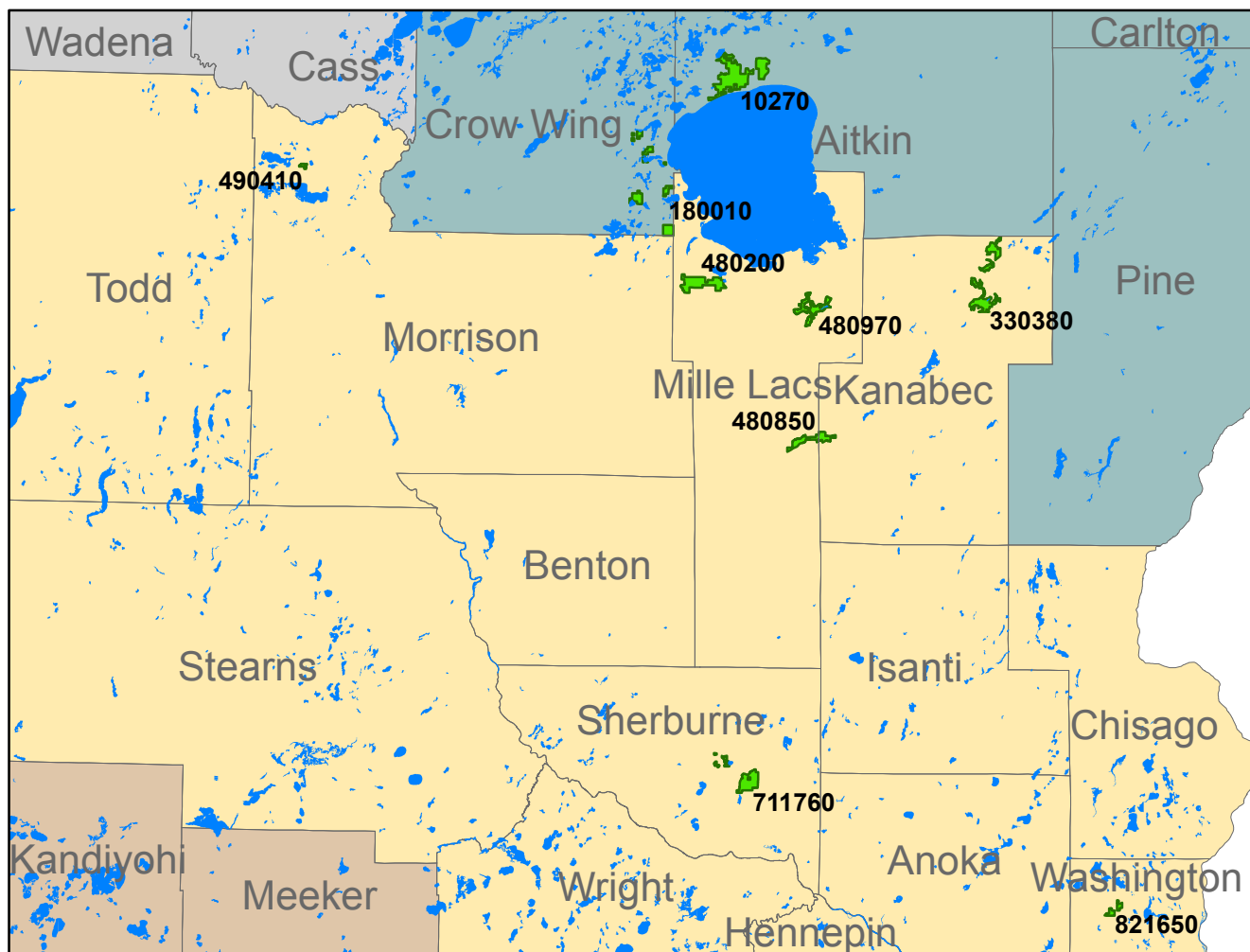


# HCVF Sites in Region 3



## Legend HCVF

### Sites



### County Boundaries



### Lakes



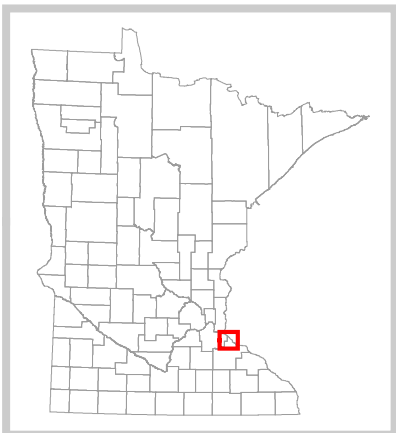
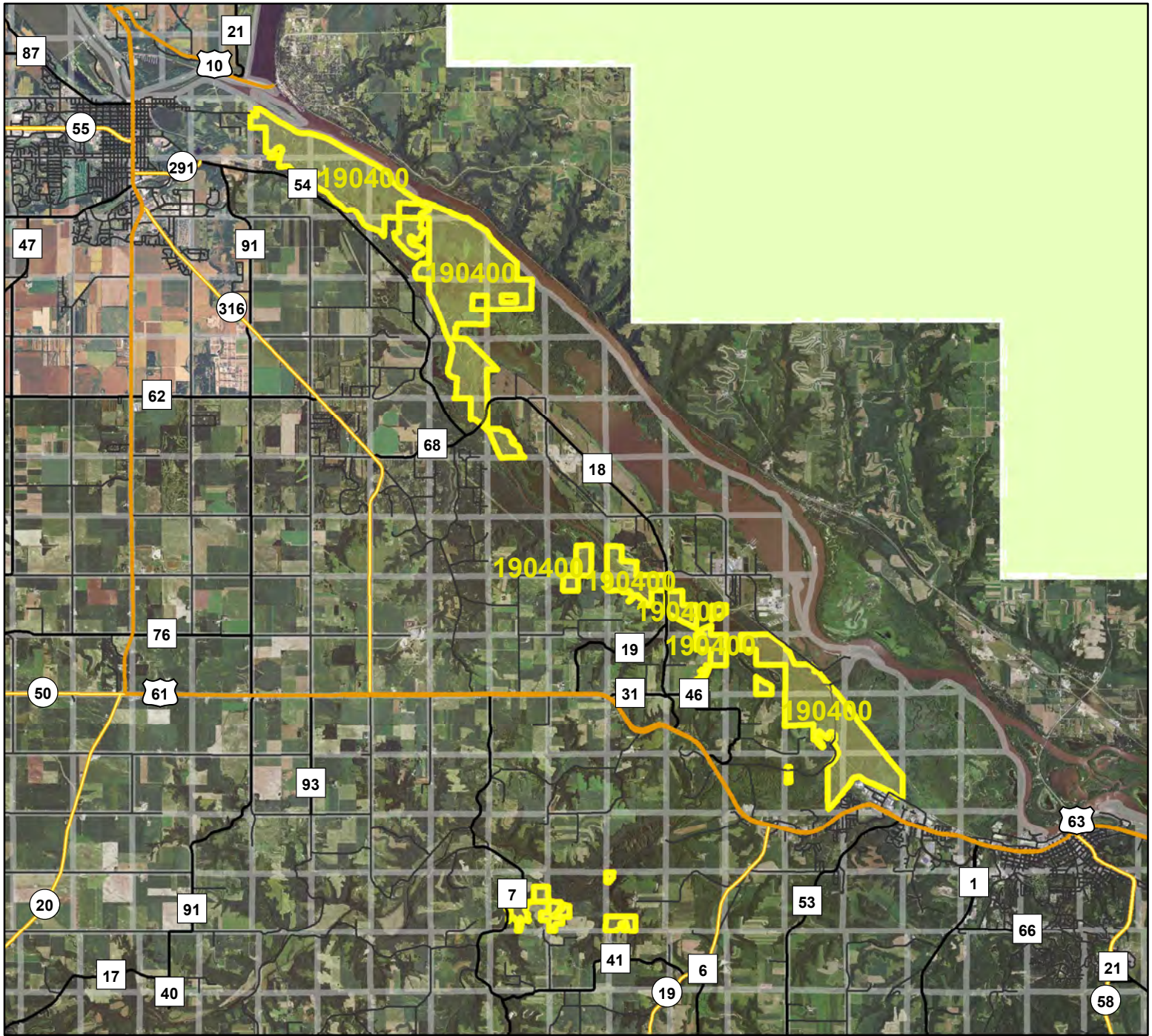
### DNR Regions

- Region 1
- Region 2
- Region 3
- Region 4



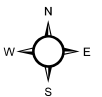
# HCVF Site 190400

Vermillion Bottoms & Lower Cannon River Area, Dakota County



## Legend

- |                                    |              |
|------------------------------------|--------------|
| Federal Trunk Highways             | Ramps        |
| State Trunk Highways               | HCVF Sites   |
| County Highways                    | PLS Sections |
| Municipal, Township or Other Roads |              |



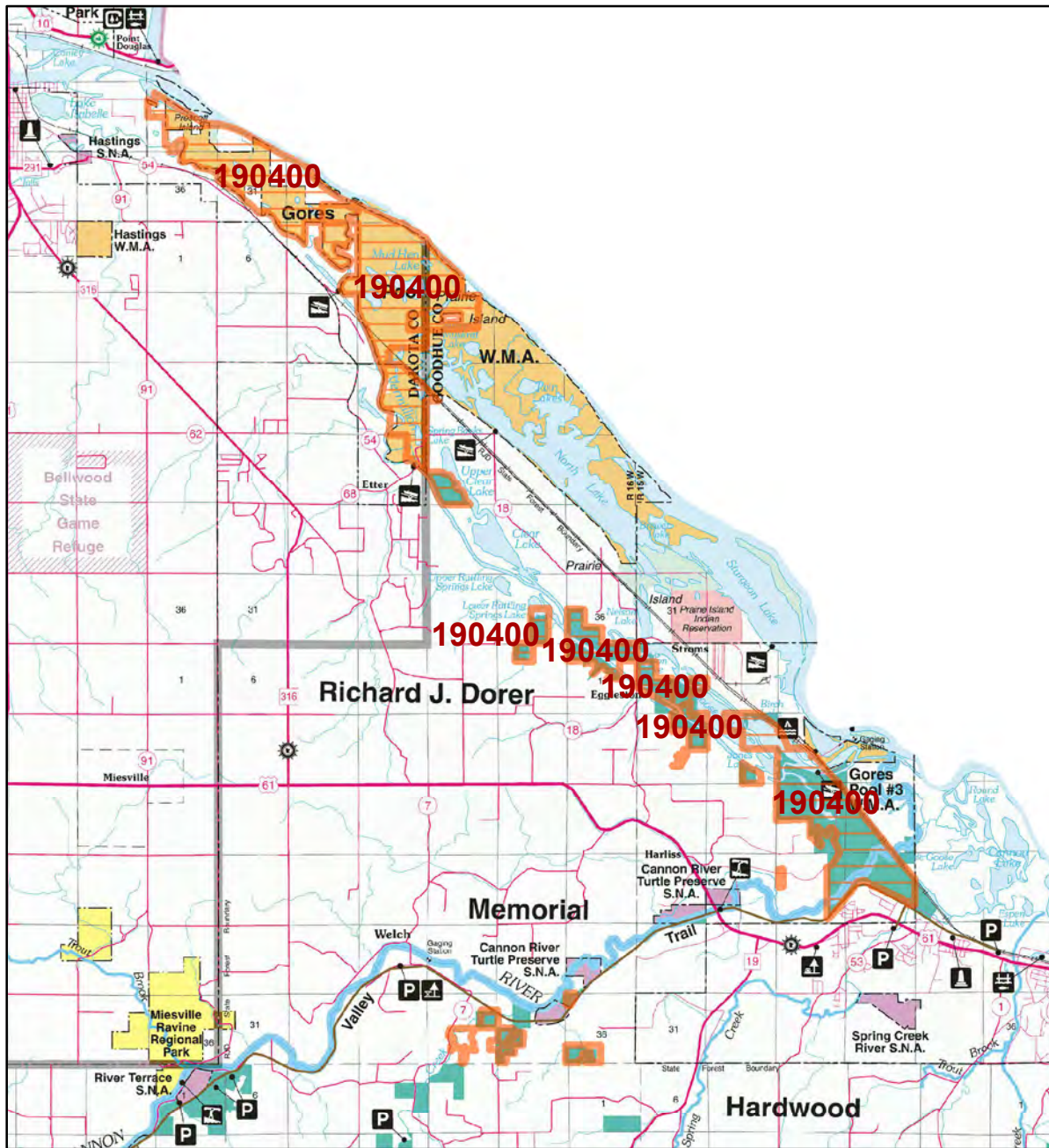
0 4 8 Miles





# HCVF Site 190400

## Vermillion Bottoms & Lower Cannon River Area, Dakota County



### LEGEND

HCVF Sites

### 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

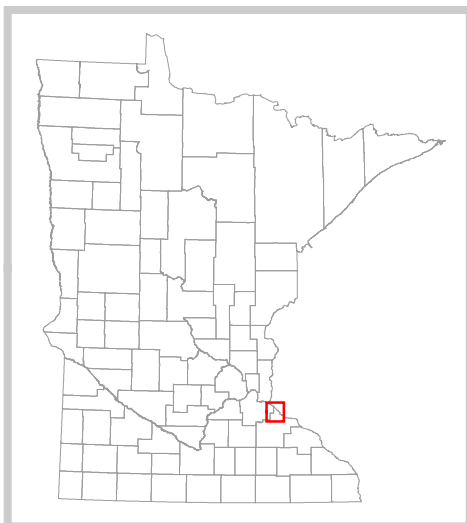
#### DESIGNATED WATERWAYS

- 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

HCVF: Scale of the bottom sheet in this map is 1:100,000 (not to scale).  
HCVF: Scale of the bottom sheet in this map is 1:100,000 (not to scale).



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 4 8 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 #: 190400**

**HCVF Name:** Vermillion Bottoms & Lower Cannon River Area

**Acres of HCVF site:** 5896.90

**County:** Dakota

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR & FAW

**Management Unit Name(s) (if applicable):** Gores WMA, Collischan Bottoms SF Unit

## HCVF Summary

Highly significant site on county and regional scales. Large expanses of floodplain along the Vermillion and Mississippi Rivers between Hastings and Red Wing and along the Cannon River west of Red Wing. Floodplain native plant communities include floodplain forest, emergent marsh, sedge meadow, shrub swamp, and calcareous fen. Bluffs bordering floodplains support mesic hardwood forests, notably Southern Mesic Maple-Basswood Forest. Important habitat for state-listed and SGCN bird species, including cerulean warbler, bald eagles, red-shouldered hawk, & Acadian flycatcher. One of two known populations in the state of the state-endangered plant *Iodanthus pinnatifidus* (purple rocket).

### 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): one reptile/amphian species. HCV1e (Rare species concentration): cerulean warblers, red-shouldered hawks, Acadian flycatchers, prothonotary warblers, wood turtles, SGCN bird species: 14 ( red-shouldered hawk, cerulean warbler, Acadian flycatcher, bald eagle, Wilson's phalarope, Canada warbler, Cape May warbler, Connecticut warbler, golden-winged warbler, least bittern, olive-sided flycatcher, prothonotary warbler, red-headed woodpecker, wood thrush). HCV1f (Taxonomic group concentration): birds and herps. HCV1g (Outstanding Key Habitats Examples): very large river. HCV2-EBFa (intact forest block): yes. HCV2-EBFb (old forest): yes. HCV3a (G1 or G2 plant community): OPp93c. HCV3b (S1 or S2 plant community): MRn93b, OPp93c, MHs39a. HCV3c (Special S3 plant community): FFs59a, FFs68a, MHs39b. HCV3e (Old-growth forest): stand 56 NH64 (21 acres).

## Management Considerations

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



Maintain native forest cover in floodplain forest plant communities; maintain large patches of older forest; manage for floodplain forest tree regeneration by controlling reed canary grass when necessary; maintain or enhance size and health of SGCN bird populations with adequate forest cover, vertical structure, & snags; ensure rare reptiles have habitat for nesting, feeding, & travel .

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

Blufflands SFRMP; High Bio. Site Plan; Vermillion Bottoms/Lower Cannon River Floodplain Tech. Guid. Document

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

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

All HCVs benefit. DNR SNA Program; Red Wing Wildlife League; Anderson Center; Prairie Island Indian Community; Audubon Society.

## General Comments

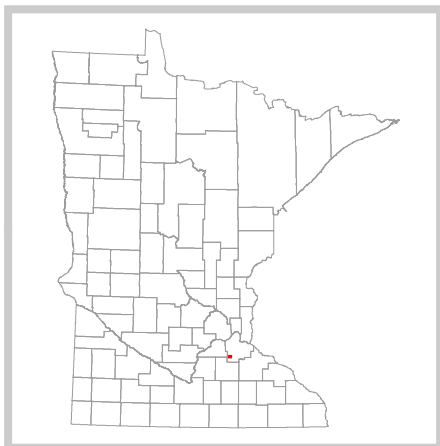
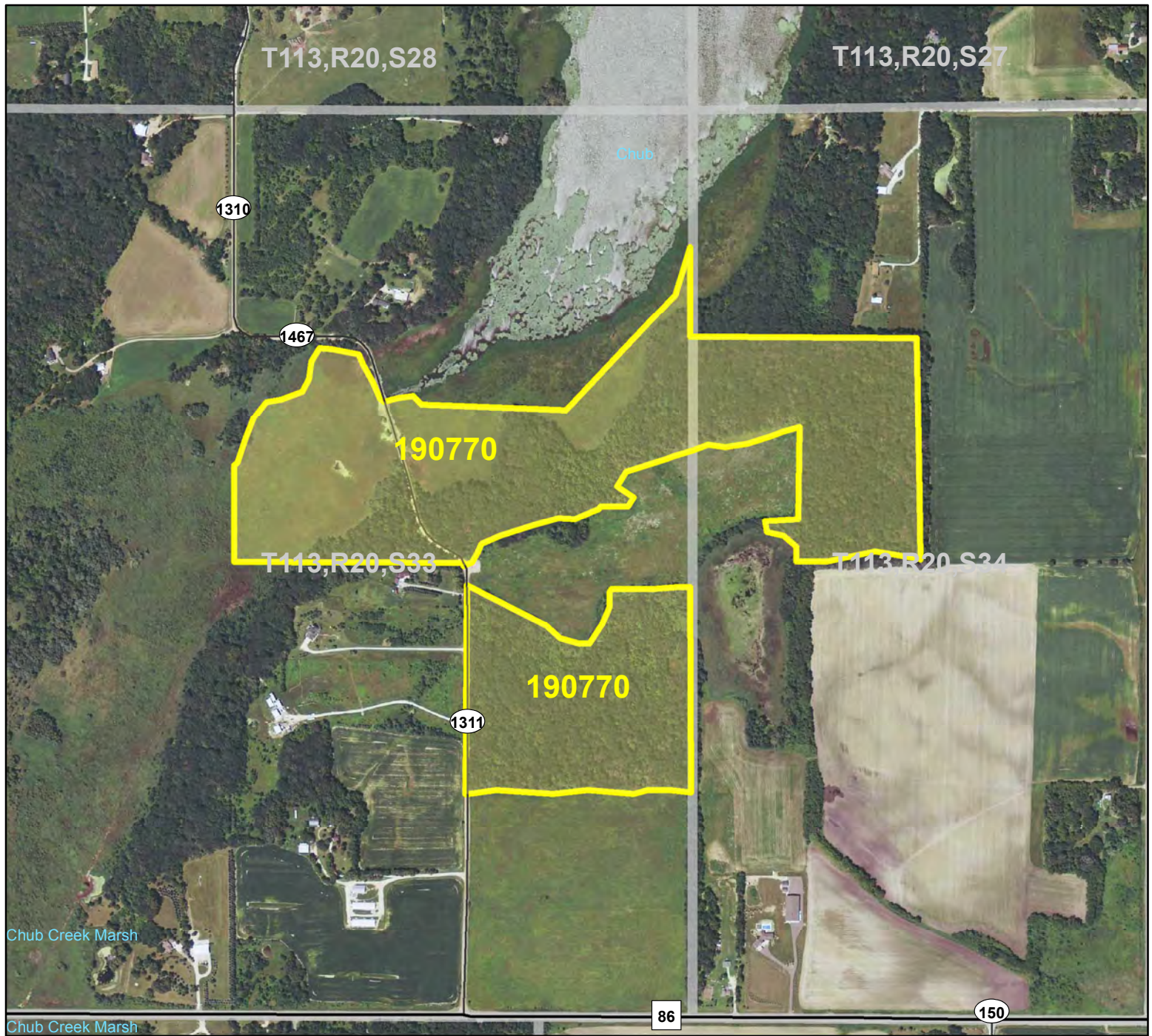
This is a "High Biodiversity Site" identified by the Blufflands SFRMP; designated Important Bird Area by Minnesota Audubon; covered by the Technical Guidance Document for the Vermillion Bottoms and Lower Cannon River Area Floodplains, Dakota and Goodhue Counties (August 8, 2005).

*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 ...

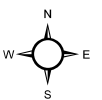
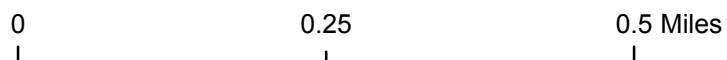
# HCVF Site 190770

## Chub Lake South, Dakota County



**Legend**

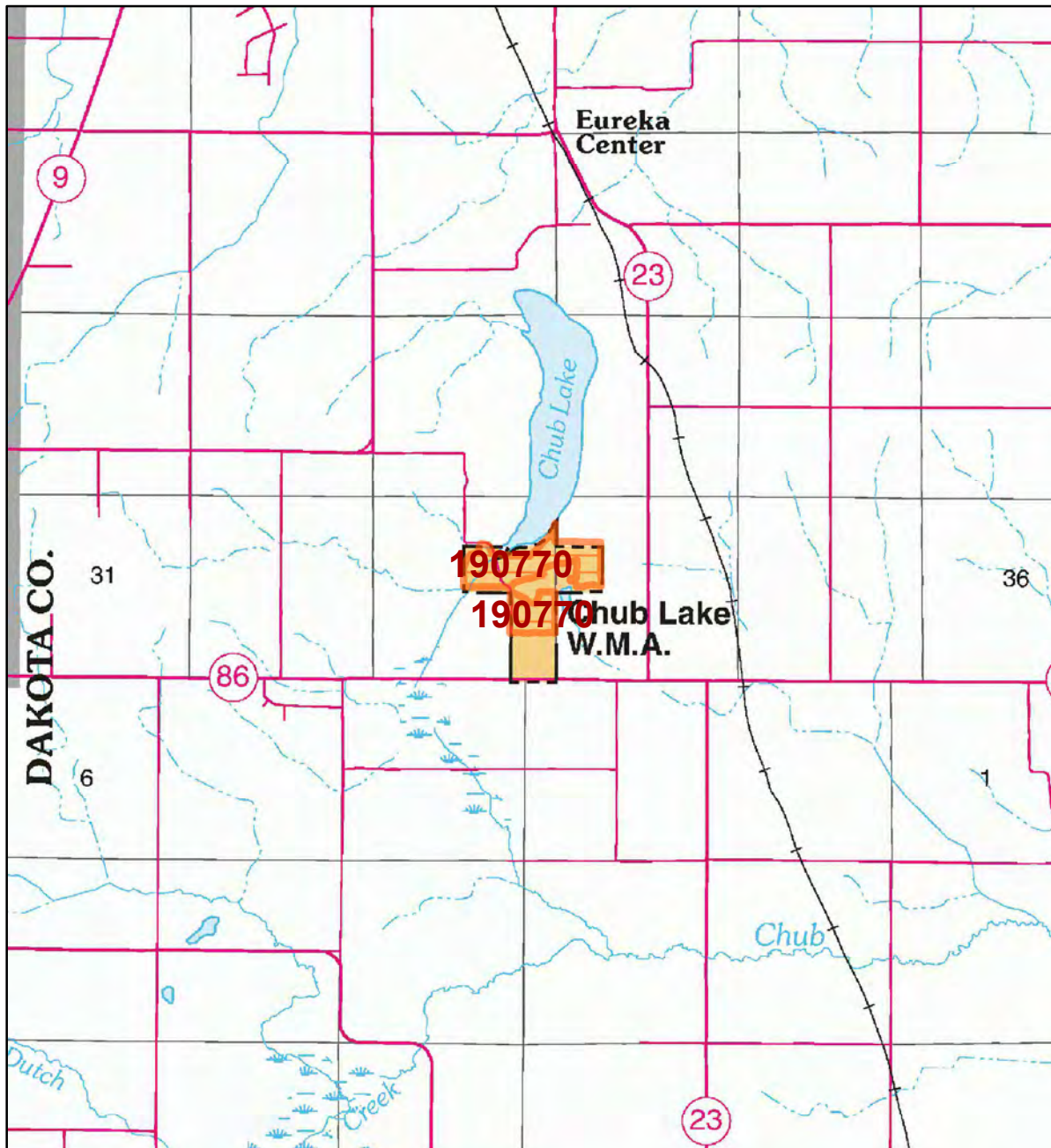
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 190770

## Chub Lake South, Dakota County



### LEGEND

HCVF Sites

### 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

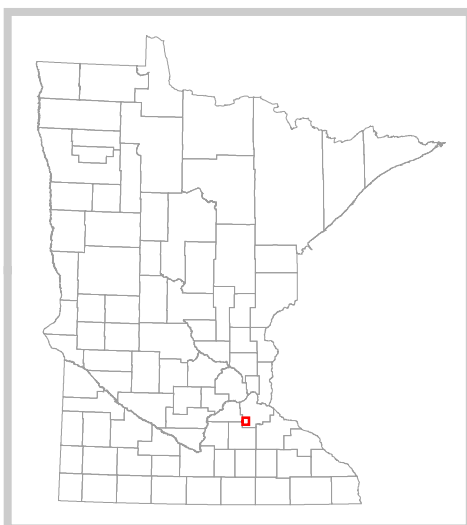
#### DESIGNATED WATERWAYS

- 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

HCVF: Some of the features depicted in this map are identified as such for informational purposes only.



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 1.5 3 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 #:** 190770

**HCVF Name:** Chub Lake South

**Acres of HCVF site:** 114.76

**County:** Dakota

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Chub Lake WMA

## HCVF Summary

Good quality mesic oak forest on nw-facing slopes with wet meadow and shrub swamp along the east shore of Chub Lake and Chub Creek, on rolling topography of Des Moines Lobe till. Exotics and armed shrubs locally abundant; evidence of past grazing. Trees even-aged with multiple stems. A rare forest herb is known from only two other locations on public land (state parks) in the state. Management to maintain and enhance this species is needed. A significant population of waterwillow (*Decodon verticillatus*) occurs in wetlands in the site and throughout Chub Lake's shore - this is a major disjunct population from the rest of its range. Cerulean warblers recorded in the forest.

**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): 1 vascular plant species. HCV1g (Outstanding Key Habitats Examples): Forest-Upland Deciduous (Hardwood); Wetland-Nonforest. HCV3c (Special S3 plant community): MHs38c.

## Management Considerations

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

Maintain overall canopy cover; consider light surface fires through forest and wetlands; control invasive shrub species.

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



*No information entered.*

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

**\_Yes\_**

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Forest and wetlands continue onto adjacent private lands, as do the lake, creek, and the population of waterwillow.

## General Comments

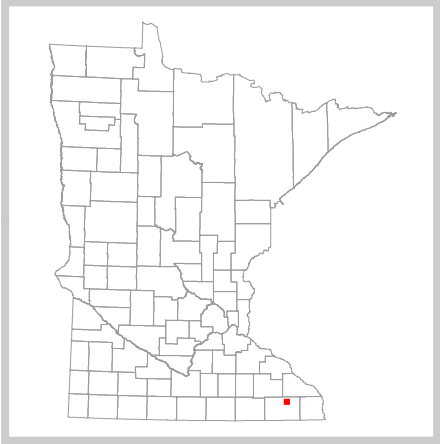
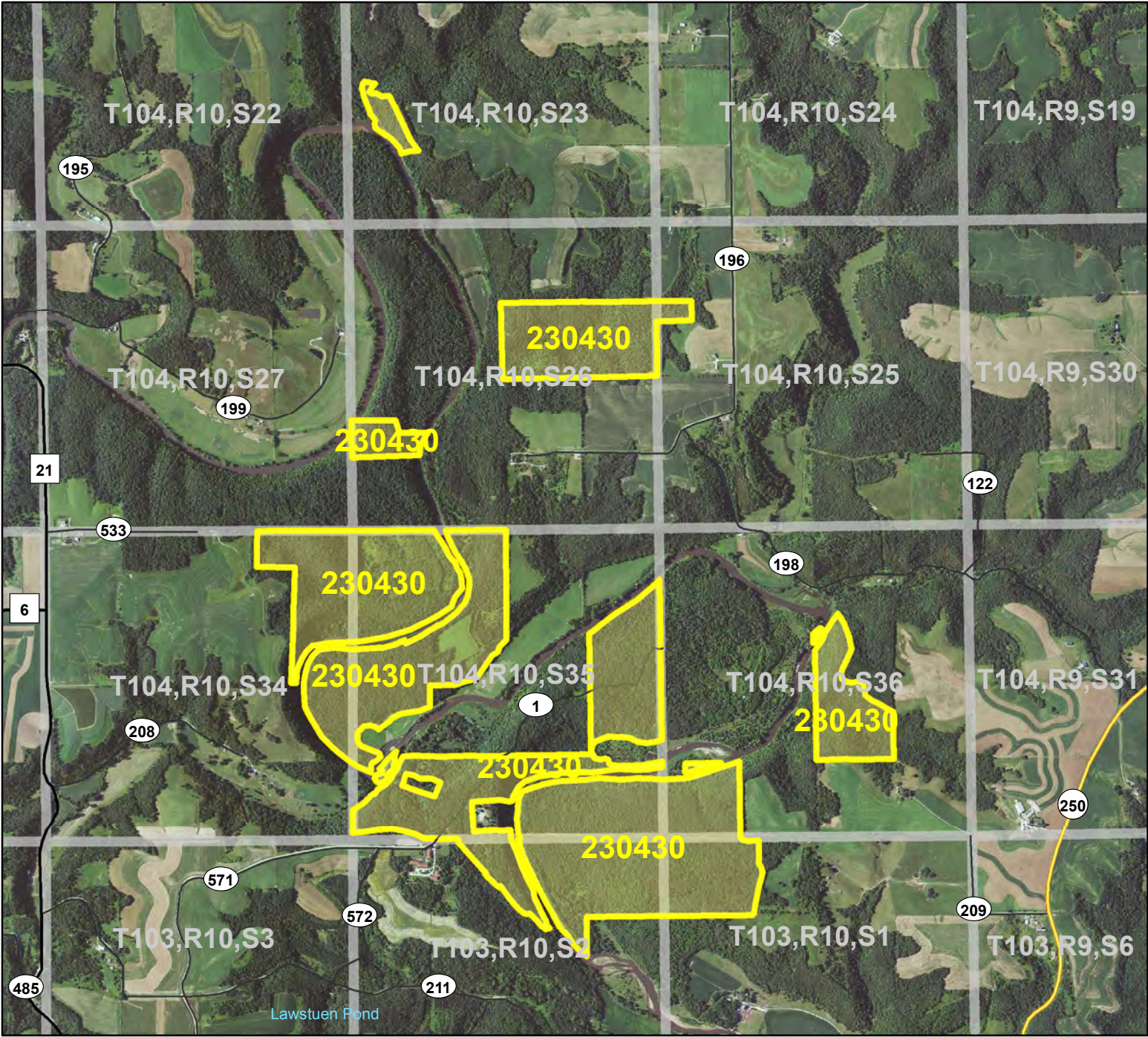
This area was included in a special regulations area to keep off-road vehicles out of the esker/tunnel valley areas during the trail inventory/planning process.

*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 ...*

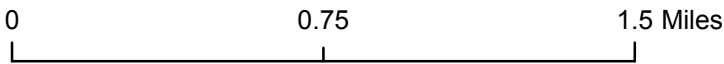
# HCVF Site 230430

## Brightsedale Forestry Unit, Fillmore County



**Legend**

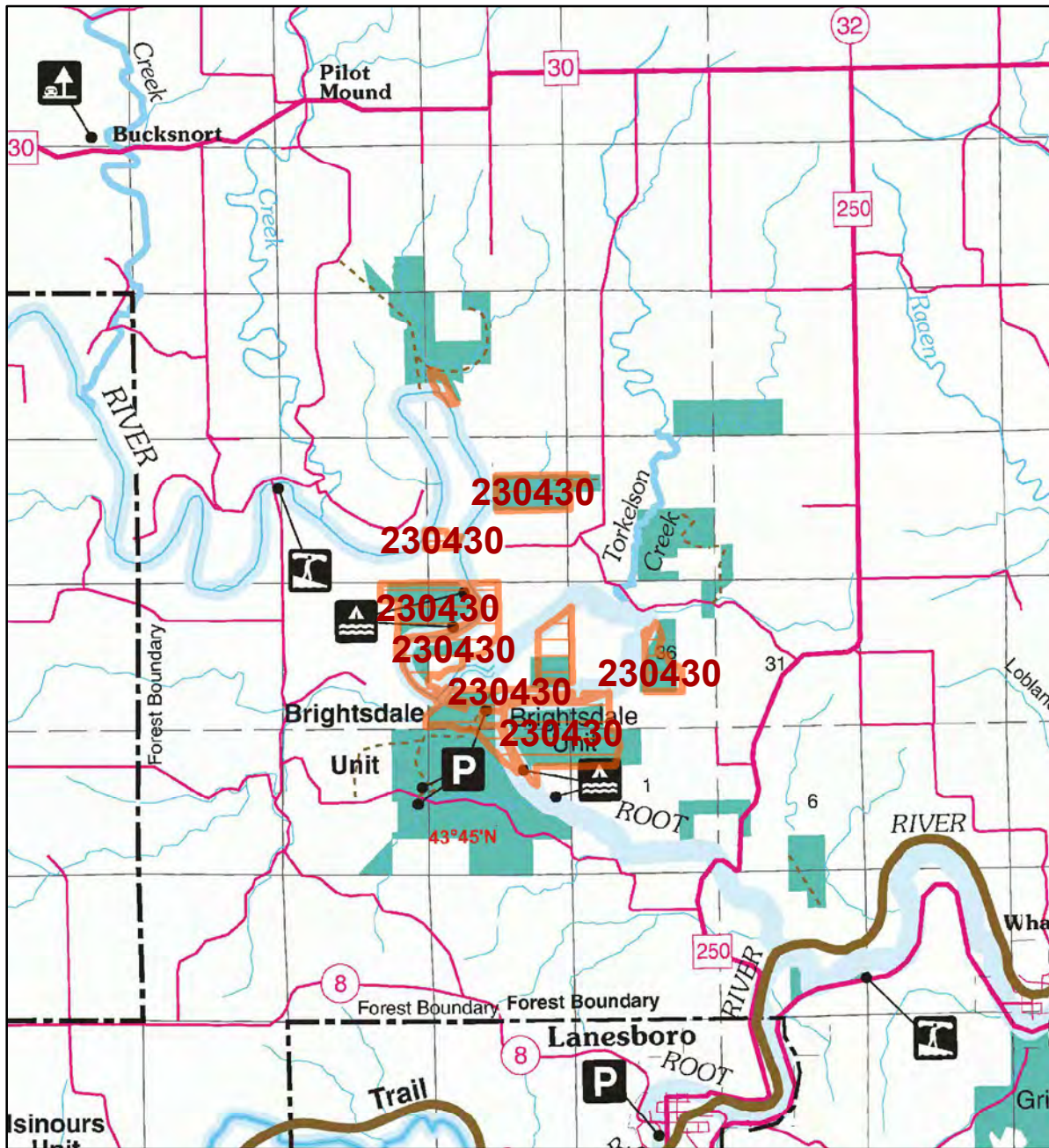
- State Trunk Highways
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections



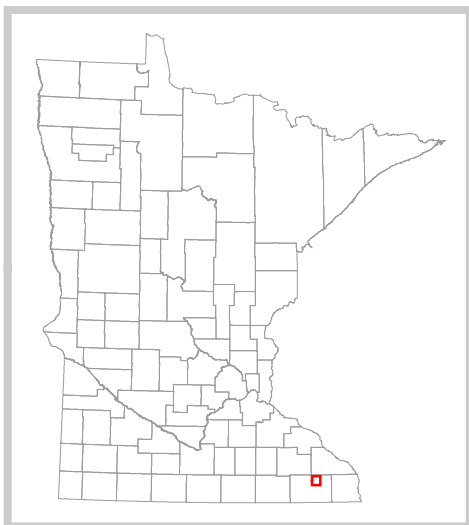


# HCVF Site 230430

## Brightsedale Forestry Unit, Fillmore County



- LEGEND**
- HCVF Sites**
- 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



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 4 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 #: 230430**

**HCVF Name:** Brightsdale Forestry Unit

**Acres of HCVF site:** 781.54

**County:** Fillmore

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Brightsdale Unit

## HCVF Summary

Root River Valley dissects Prairie du Chein bedrock; series of wide ancient meanders with long, narrow ridge-spurs separating oxbows, cliffs, talus, shorelines, and steep bluffs. Most forest canopy of low to moderate quality with some scattered above average stands with diverse structure; continuous canopy on slopes and some crests; very scenic with white pine on ridge crests.

### **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): reniform sulivantia (*Sullivantia sullivantii*), glade mallow (*Napaea dioica*), spreading sedge (*Carex laxiculmis*); HCV1e (Rare species concentration): Short's aster (*Aster shortii*), nodding wild onion (*Allium cernuum*), reniform sulivantia (*Sullivantia sullivantii*), glade mallow (*Napaea dioica*), spreading sedge (*Carex laxiculmis*), cliff goldenrod (*Solidago sciaphila*), Wolf's bluegrass (*Poa wolfii*), beaked snakeroot (*Sanicula trifoliata*), American ginseng (*Panax quinquefolius*), gravel chub (*Erimystax x-punctatus*), red-shouldered hawk (*Buteo lineatus*), tricolored bat (*Perimyotis subflavus*); HCV3b (S1 or S2 plant community): FFs59c [AB rank in 1995]; HCV3c (Special S3 plant community): MHs39b [BC, C ranks in 1994], MHs38a [2 sites, both BC rank in 1994], CTs33b [B ranked in 1994]; HCV3d (Natural origin pine stand): MHs38a

## Management Considerations

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



Maintain older forest where there are rare species in the uplands will be important as will be maintaining mature patches of forest throughout the site. Harvested areas should contain retention areas where mature forest structure and composition is maintained. Controlling invasive species will also be important for maintaining and enhancing the HCVs throughout the site, especially in the floodplain forests.

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

*No information entered.*

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

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about 42 different private landowners that surround this HCVF site, which has a rather choppy boundary given the state ownership boundary. State land managers can consult the rare species polygons and points and parcel data available in Quick Layers (or office plat maps if these are more accurate).

## General Comments

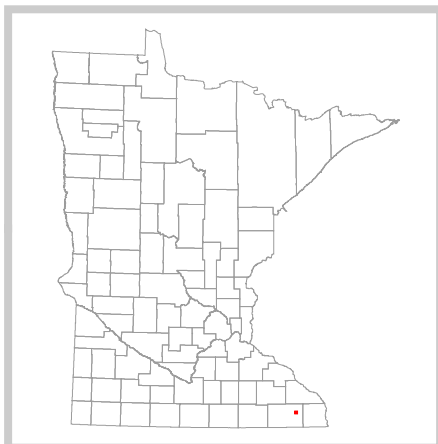
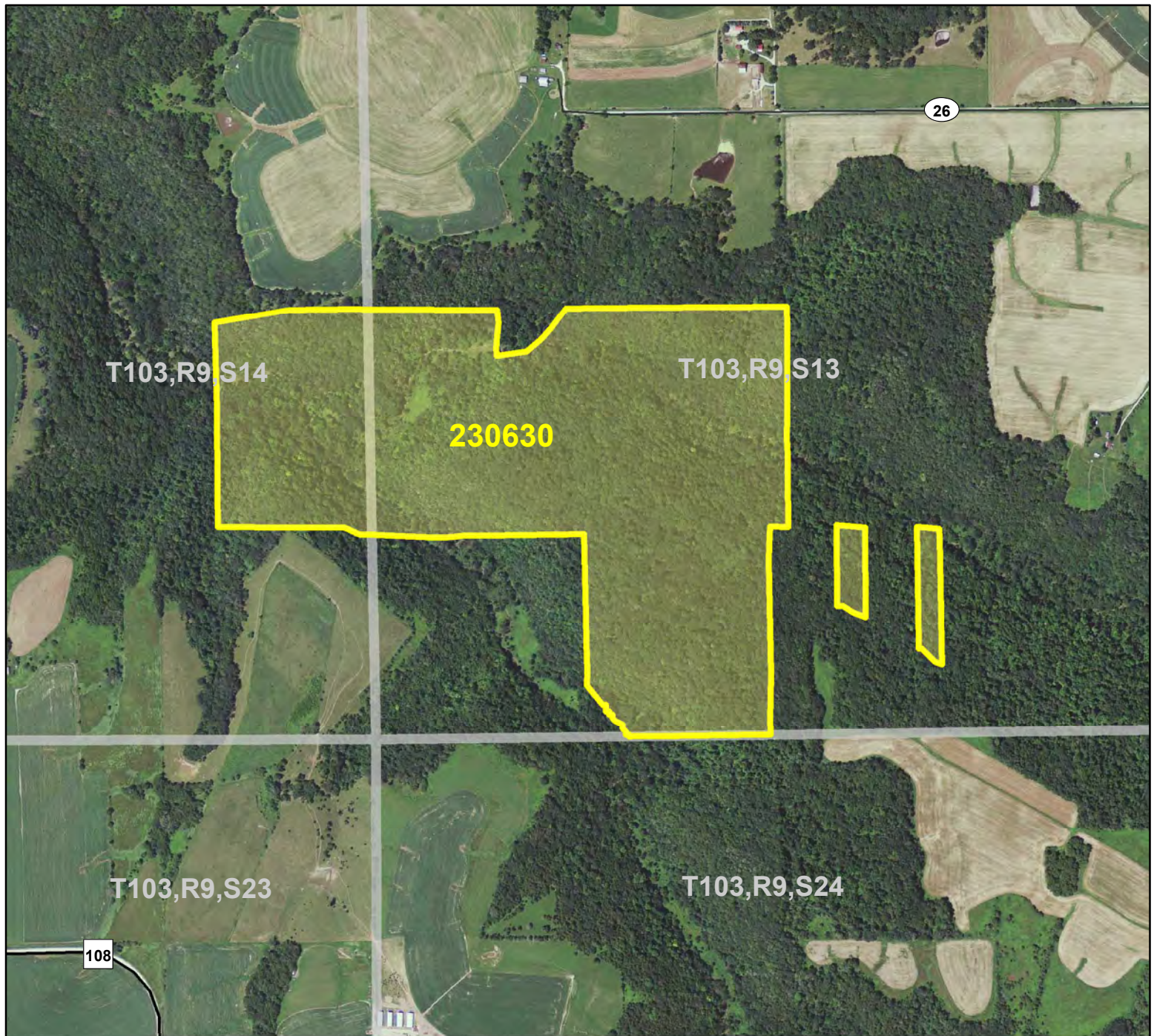
There were significant changes to the MBS site boundaries due to 1) the state ownership was a smaller part of several MBS sites and 2) disagreement among R3 HCVF team members on whether the site should be designated which resulted in a compromise in a smaller boundary around what we thought to be the higher quality areas. Because the state ownership is of mixed quality and has a rather patchy ownership boundary, we discussed the difficulty in maintaining/enhancing HCVs and controlling this quality on state land.

*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 ...*

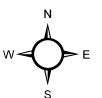
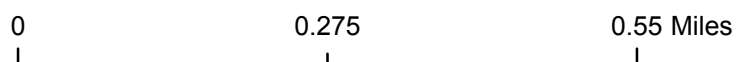
# HCVF Site 230630

## Diamond Creek Unit, Fillmore County



**Legend**

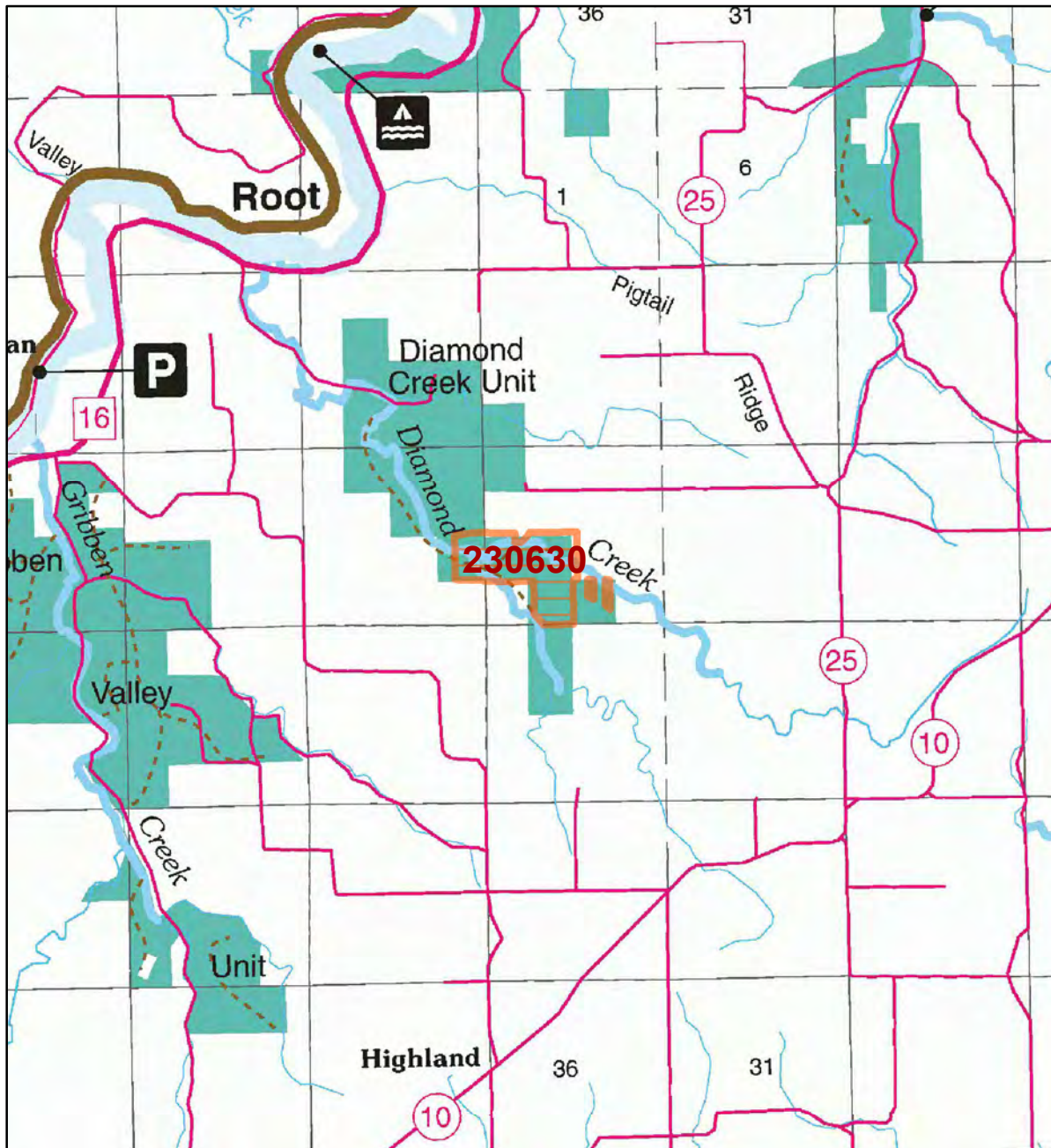
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 230630

## Diamond Creek Unit, Fillmore County



**LEGEND**

**HCVF Sites**

**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**

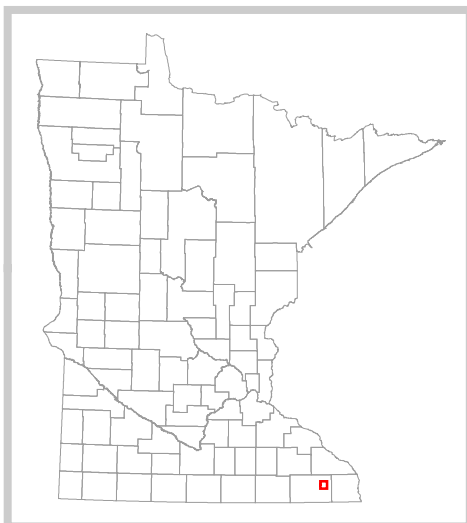
- State Trail
- State Forest Road

**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



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 1.5 3 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 #: 230630**

**HCVF Name:** Diamond Creek Unit

**Acres of HCVF site:** 153.10

**County:** Fillmore

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Diamond Creek Unit (Upper Diamond Creek Valley)

## HCVF Summary

Large, spring-fed, dissected tributary to the Root River within Shakopee and Oneota Dolomite. Scattered quality forests amid continuous canopy. Disturbed lowlands with some forest, seepage meadows, and pools. Old-growth dry-mesic oak and floristically diverse maple-basswood forest. Cliffy forested ravines and pallsades and some prairie. Important habitat for Acadian flycatcher, cerulean warbler, and Louisiana waterthrush.

### **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): five vascular plant species; HCV1e (Rare species concentration): smooth-sheathed sedge (*Carex laevivaginata*), James' sedge (*Carex jamesii*), spreading sedge (*Carex laxiculmis*), Carey's sedge (*Carex careyana*), narrow-leaved spleenwort (*Diplazium pycnocarpon*), squirrel-corn (*Dicentra canadensis*), Goldie's fern (*Dryopteris goldiana*), Wood's sedge (*Carex woodii*), stemless tick-trefoil (*Desmodium nudiflorum*), American ginseng (*Panax quinquefolius*), beaked snakeroot (*Sanicula trifoliata*), Louisiana waterthrush, cerulean warbler, Acadian flycatcher ; HCV3b (S1 or S2 plant community): MHs49 [C rank in 1996]; HCV3c (Special S3 plant community): MHs49 [C rank in 1996], MHs39b [B rank in 1994], MHs38c [2 records, B and BC rank in 1994]; HCV3e (Old-growth forest): 28.8 ac (stand 119 NH57).

## Management Considerations

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



Maintain older forest canopy where there are rare species in the uplands that depend on forest cover, especially on rich n and e-facing slopes and along stream valleys and groundwater seeps. Maintain hydrology of ground water seepage areas within the site for *Carex laevivaginata*. Controlling invasive species will be important for maintaining and enhancing the HCV's throughout the site. The High Bio Plan for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are at least 14 different private landowners that surround this HCVF site. State land managers should reference the rare species polygons & points and the parcel data in Quick Layers to view intersections and potential habitat crossover. Many HCVs would benefit from landowner coordination, but especially the bird HCVs (cerulean warbler, Louisiana waterthrush, and Acadian flycatcher).

## General Comments

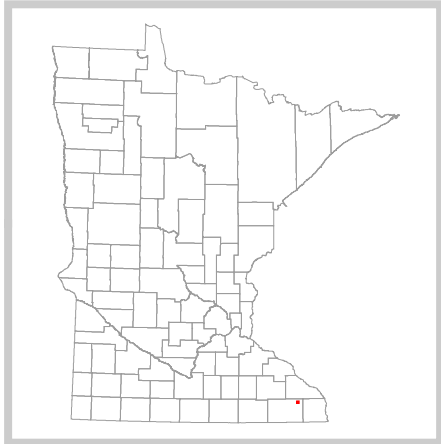
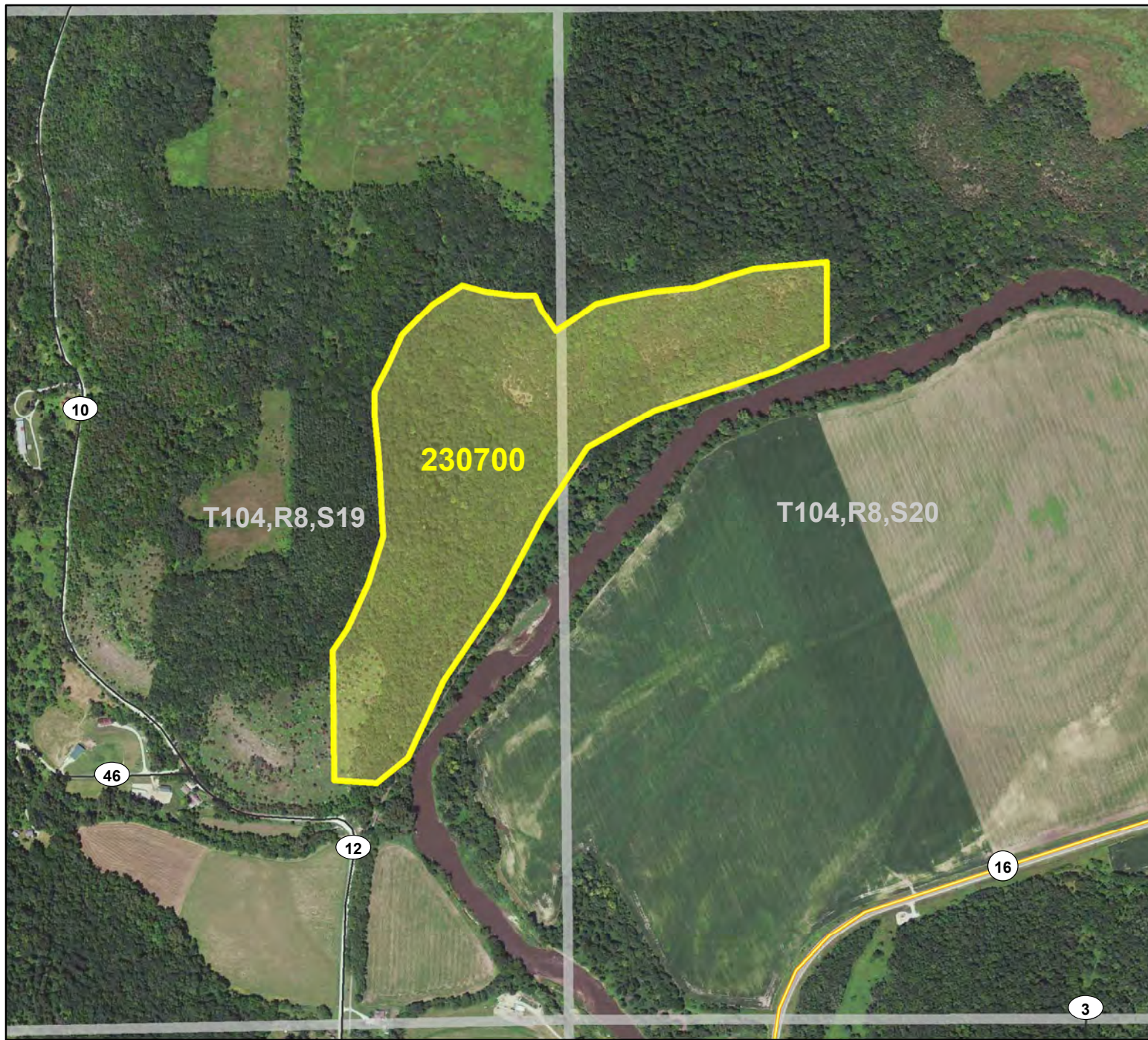
There is a High Bio Plan written for this site. This site differs from the MBS site boundary and the High Bio Plan boundary. It's much smaller than the MBS site boundary but is a compromise between the 2 boundaries agreed upon in the High Bio Plan write up (critical zone and project boundary). The HCVF boundary encompasses the majority of the HCVs on the site.

*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 ...

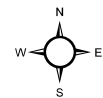
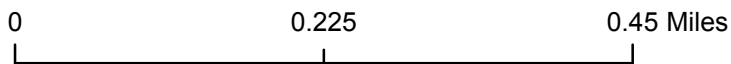
# HCVF Site 230700

## North Peterson Unit, Fillmore County



**Legend**

- State Trunk Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 230700

## North Peterson Unit, Fillmore County



### LEGEND

HCVF Sites

### MAP EXPLANATION

#### LAND OWNERSHIP

- County Land
- State Forest Land
- State Park and Recreation Land
- State Wildlife Management Area Land
- State Scientific & Natural Area Land
- National Waterfowl Production Area
- 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

HCVF: Some of the features shown in this map are not shown on the original 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 1.5 3 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 #:** 230700

**HCVF Name:** North Peterson Unit

**Acres of HCVF site:** 61.07

**County:** Fillmore

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** North Peterson Unit (Peterson Prairie)

## HCVF Summary

Mostly s-facing bluff of the Root River east of Peterson along the bike trail. This site has overgrown prairies with great species diversity in openings. Soil is Brodale Sandy Silt with cobbles and the upper slopes have Oneota outcrops.

### **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): one vascular plant species, one rare reptile/amphibian species; HCV1e (Rare species concentration): Short's aster (*Aster shortii*), slender-leaved scurf pea (*Psoralea tenuiflora*), Hill's thistle (*Cirsium hillii*), plains wild indigo (*Baptisia bracteata* var. *leucophaea*), rare reptile/amphibian spp. concentraion; HCV1f (Taxonomic group concentration): yes, reptile/amphibian species (3 spp) and plants (4 spp); HCV1g (Outstanding Key Habitats Examples): bluff prairies (UPs13c); HCV3c (Special S3 plant community): UPs13c [BC rank in 1995]

## Management Considerations

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

Maintenance of open bluff prairies by brush and tree removal, burning, etc. are necessary for the HCVs at this site. Road building without measures to protect rare species should be avoided. Management (burning, timber harvest), especially involving vehicles, should be conducted from late fall to early spring to protect rare species. The High Bio Plan for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit.

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



**recommendations:**

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are a few adjacent private landowners, and it would be important to coordinate management efforts, especially of UPs13c. Other adjacent landowners are located on the opposite side of the Root River and managing agricultural land. The State of Minnesota owns and manages the adjacent land to the north.

## General Comments

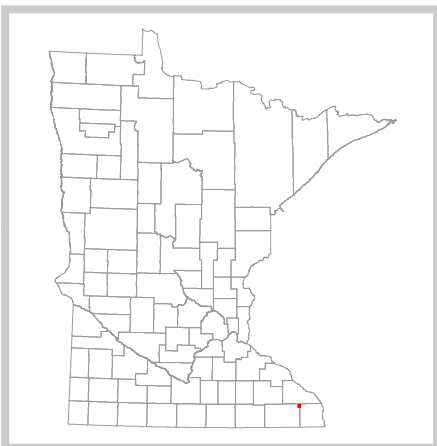
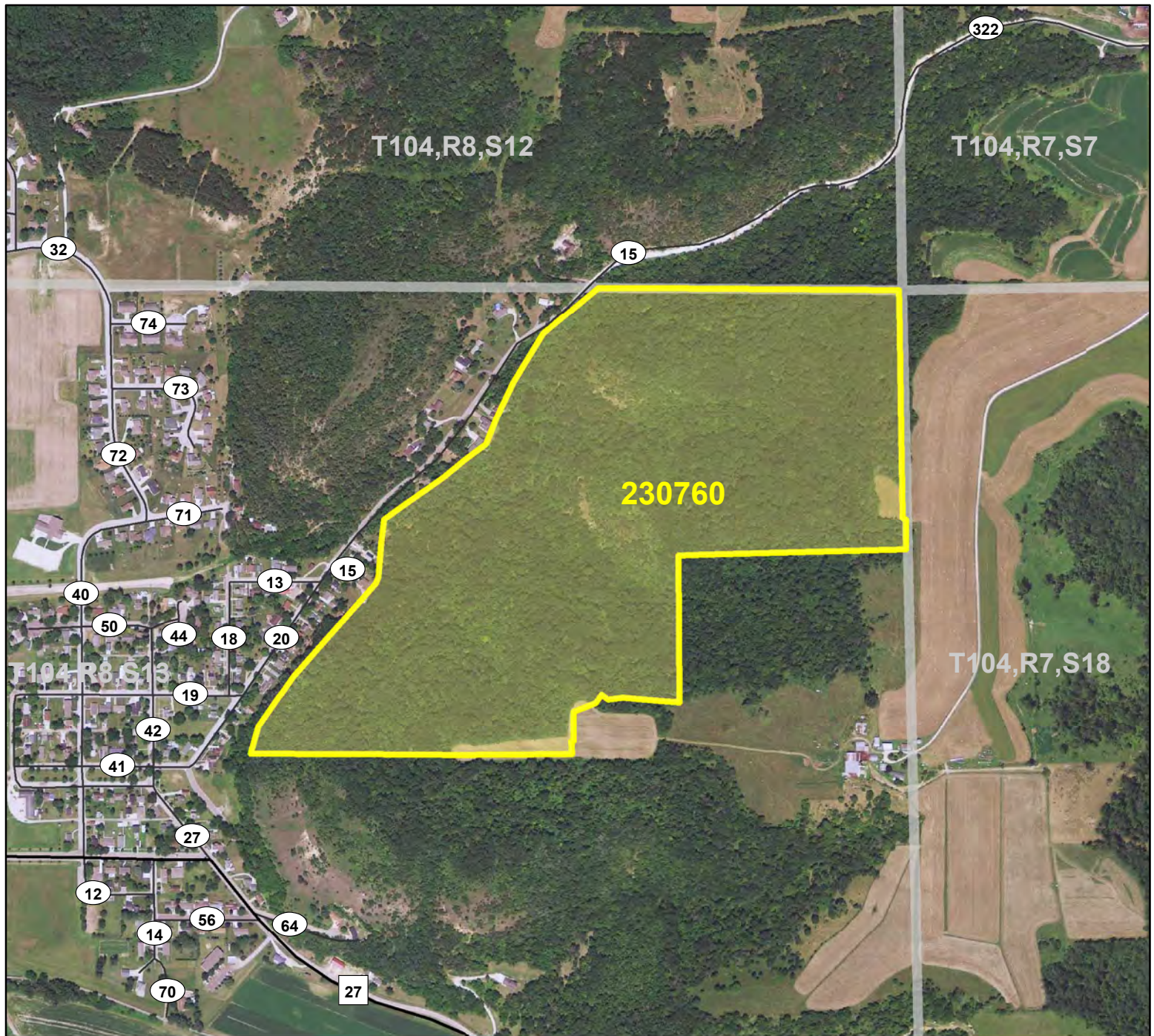
There is a High Bio Plan written for this site. This site differs from the MBS site boundary and the High Bio Plan boundary. It is smaller in area than both. It encompasses the scattered UPs13c mapped native plant communities located on state land and the adjacent forest that connects these mapped prairies.

*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 ...

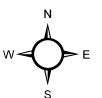
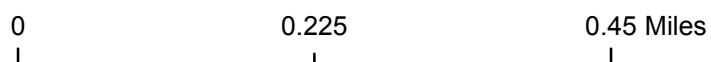
# HCVF Site 230760

## Rushford Bluffs, Fillmore County



**Legend**

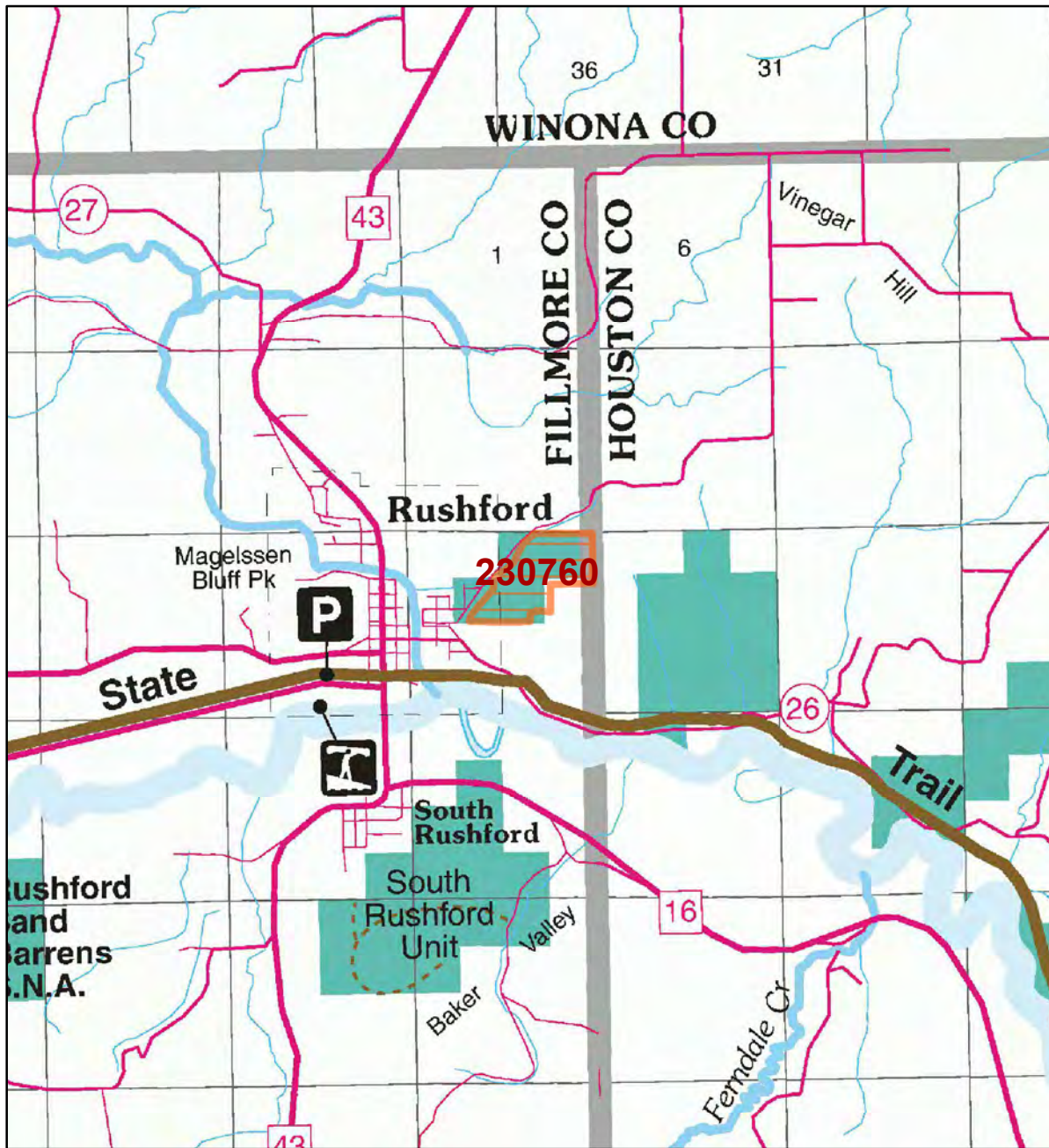
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections



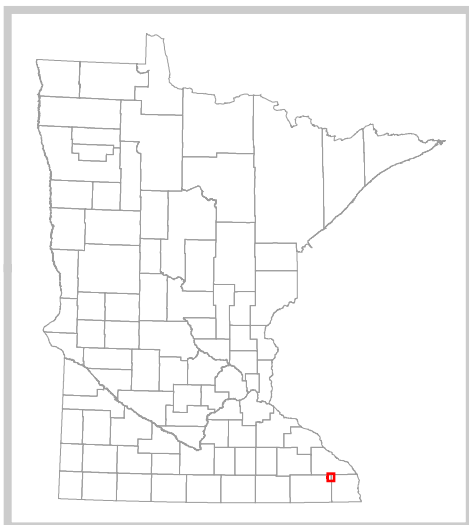


# HCVF Site 230760

## Rushford Bluffs, Fillmore County



- LEGEND**
- HCVF Sites**
- 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



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 1.5 3 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 #: 230760**

**HCVF Name:** Rushford Bluffs

**Acres of HCVF site:** 119.02

**County:** Fillmore

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Rushford Bluffs

## HCVF Summary

This HCVF site occurs on s to sw-facing bluffs and is within Rushford. It's dissected by branched ravines. Geologically, it's mostly Jordan Sandstone capped with Oneota Dolomite. Surrounding prairies are floristically diverse. The entire area is threatened with housing developments.

### **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): three vascular plant species, rare reptile/amphibian species; HCV1e (Rare species concentration): four vascular plant species, one rare reptile/amphibian species, ; HCV3b (S1 or S2 plant community): FDs27c [ranked C in 1994]; HCV3c (Special S3 plant community): UPs13c [ranked BC in 1994], MHs37a [ranked BC in 1994].

## Management Considerations

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



Maintenance of open bluff prairies by brush and tree removal, burning, etc. are necessary for the HCVs at this site. Road building without measures to protect rare species should be avoided. Management (burning, timber harvest), especially involving vehicles, should be restricted to the period from late fall to early spring to protect rare reptile/amphibian species. Maintaining larger patches of mature forest cover is important for a rare forest herb (and reserve patches should be strategically placed in known locations of this plant). Maintenance of oak forests (MHs37a) will be important and prescribed burning and TSI/understory thinning can be used to increase oak advanced regeneration in those areas prior to harvesting. Management of invasive species will maintain/enhance HCVs as well. The High Bio Plan for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

The rare prairie species and S3 native plant communities would benefit by coordinating with private landowners.

## General Comments

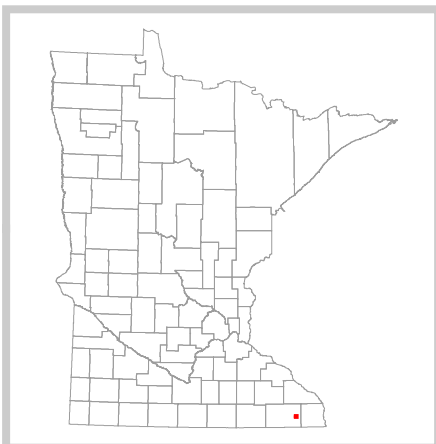
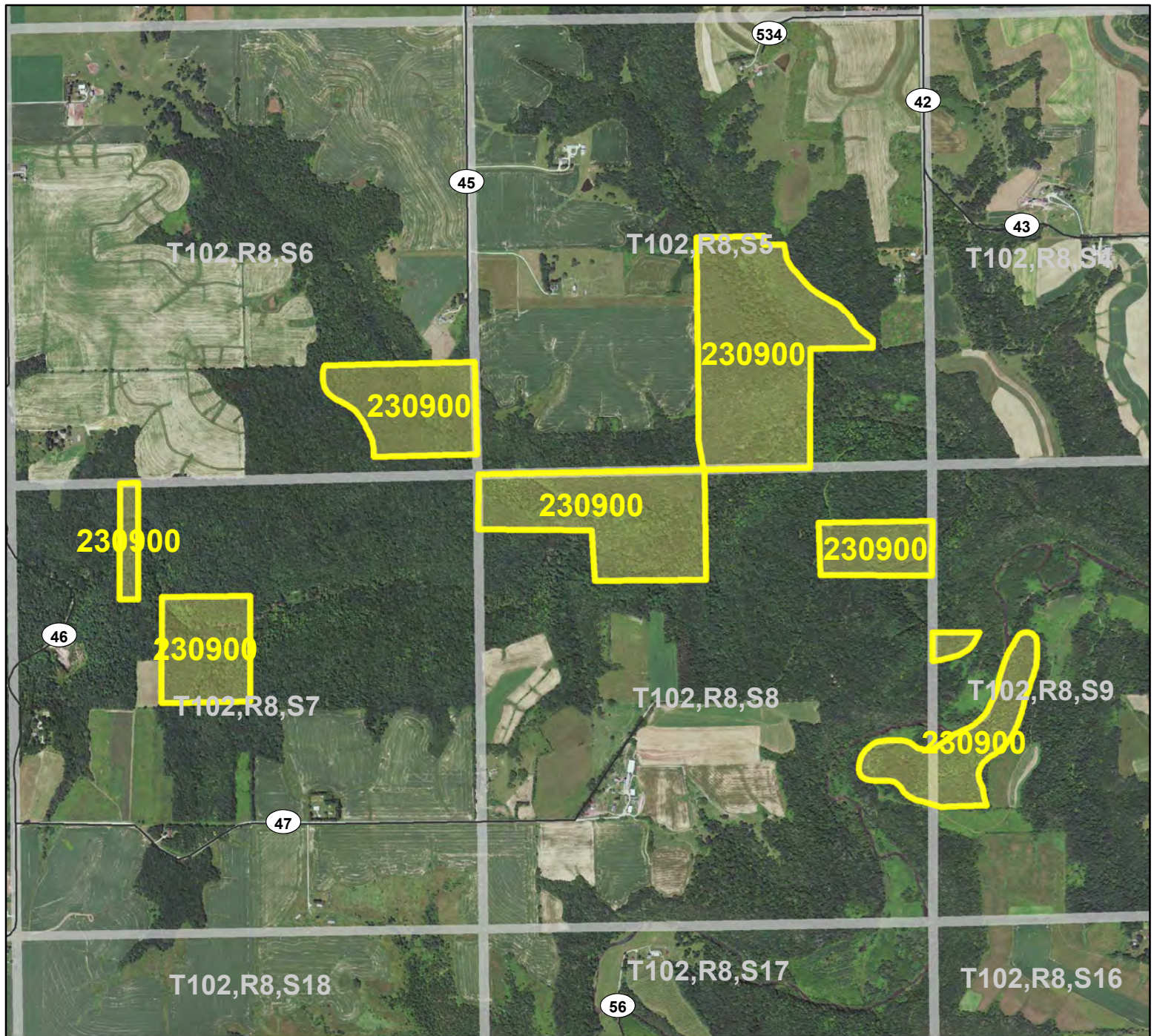
There is a High Bio Plan written for this site. This site differs from the MBS site boundary and the High Bio Plan boundary. It's smaller in area than both. The HCVF site only encompasses state land.

*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 ...

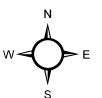
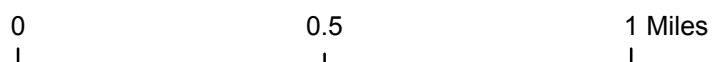
# HCVF Site 230900

## Shattuck Creek, Fillmore County



**Legend**

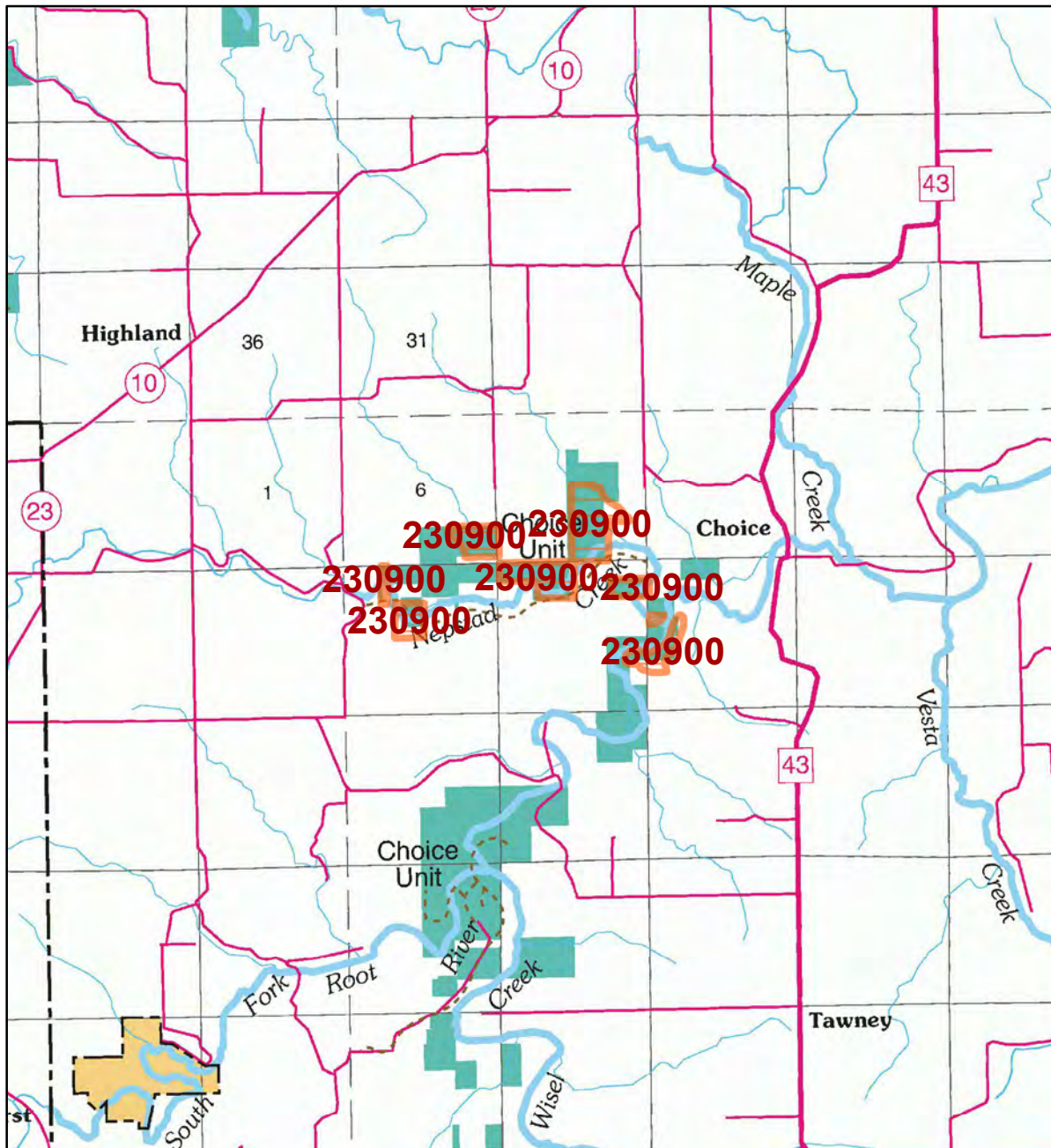
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 230900

## Shattuck Creek, Fillmore County



### LEGEND

HCVF Sites

### 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

HCVF: Some of the features shown in this map are not shown on the original 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 1.75 3.5 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 #: 230900**

**HCVF Name:** Shattuck Creek

**Acres of HCVF site:** 268.20

**County:** Fillmore

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Choice Unit (Shattuck Creek Valley)

## HCVF Summary

Large, highly dissected, spring-fed valley within Oneota bedrock. There's a continuous canopy of various quality forests with old-growth white pine, oak and maple-basswood lowland hardwoods (mostly very disturbed), and young canopy with some quality stands. Seepage areas and springs are present as well as a weak algific talus slope. There's a very large saxifrage population.

### **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): five vascular plant species; HCV1e (Rare species concentration): 12 vascular plant species, Acadian flycatcher (*Empidonax virescens*), Louisiana waterthrush (*Parkesia motacilla*), common five-lined skink (*Plestiodon fasciatus*), Cerulean warbler (*Setophaga cerulea*); HCV3b (S1 or S2 plant community): MHs38c [ranked C in 1996], MHs49b [1 record ranked C in 1996 & 1 record ranked BC in 1995], CTs46a2 [ranked C in 1994], CTs53 [no rank or date given]; HCV3c (Special S3 plant community): MHs39b [2 records ranked AB, 1 record ranked BC, 1 record ranked B all in 1996], MHs38a [1 record ranked BC in 1994, 1 record ranked BC in 1995], FDs38a [no rank or date given]

## Management Considerations

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



Maintain older forest canopy where there are rare species in the uplands that depend on forest cover, especially on rich N and E facing slopes and along stream valleys and groundwater seeps. Maintain hydrology of ground water seepage areas within the site for *Carex laevivaginata*. Controlling invasive species will be important for maintaining and enhancing the HCV's throughout the site. The High Bio Plan for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about 32 different private landowners that surround this HCVF site, which by the nature of the state ownership is scattered. Many of these landowner have forested properties and all HCVs would benefit from management coordination for maintaining/enhancing.

## General Comments

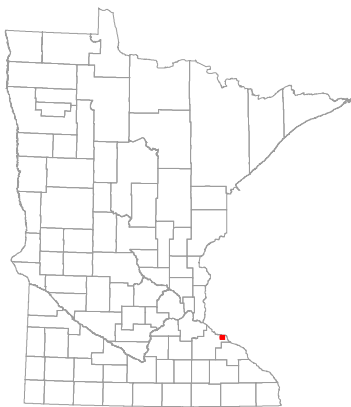
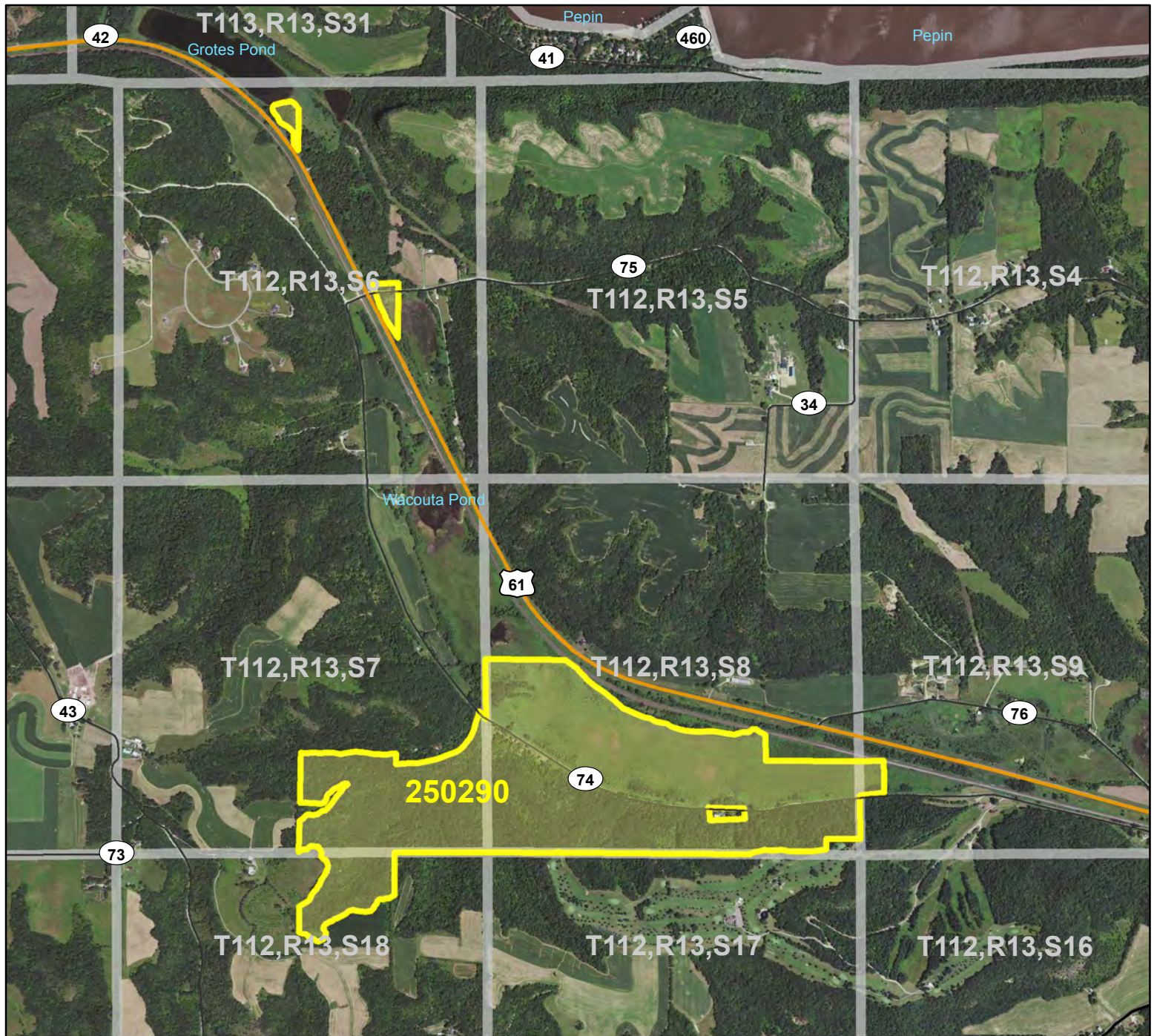
There is a High Bio Plan written for this site. This site boundary differs from both the MBS site boundary and the High Bio Plan boundary. The HCVF boundary only includes the state land within the critical zone boundary stated in the High Bio Plan.

*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 ...

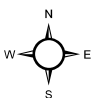
# HCVF Site 250290

## Perched Valley, Goodhue County



### Legend

- Federal Trunk Highways
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections



0 0.5 1 Miles





# HCVF Site 250290

## Perched Valley, Goodhue County



### LEGEND

HCVF Sites

#### 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

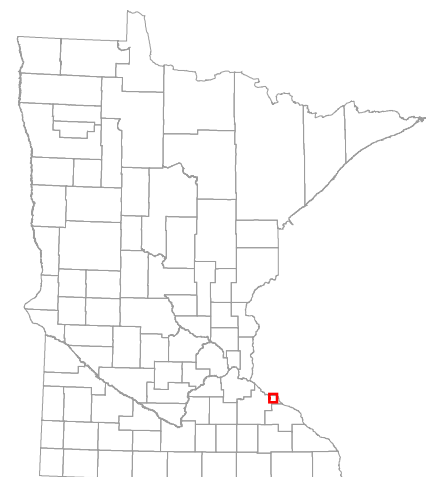
##### DESIGNATED WATERWAYS

- 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

HCVF: Some of the features shown in this map are not shown on the original 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 1.75 3.5 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 #: 250290**

**HCVF Name:** Perched Valley

**Acres of HCVF site:** 348.05

**County:** Goodhue

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:**

**Corresponding Land Administrator(s):** FOR & FAW

**Management Unit Name(s) (if applicable):** Perched Valley

## HCVF Summary

Emergent marsh/shrub wetland/calcareous fen complex in an old Mississippi River streambed that contains a large expanse of diverse shrub wetland (rare in county). The calcareous fen, which is only 1 of 2 in the county, occurs around seeps in the site. The fen contains rare plant species. The upland portion of this site is a mixed oak forest and white pine-hardwood forest on steep north-facing slopes adjacent to the wetland area. Most of the forest is submature to mature with frequent rock outcrops and scenic cliffs. This site is one of three native pine sites in the county. There are at least two small bluff prairies.

### **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): two vascular plant species, one reptile/amphibian species; HCV1e (Rare species concentration): three vascular plant species, two reptile/amphibian species; HCV3a (G1 or G2 plant community): OPp93c [ranked A in 1994]; HCV3b (S1 or S2 plant community): OPp93c [ranked A in 1994]; HCV3c (Special S3 plant community): MHs38a [ranked B in 1990], CTs33a [not ranked, 1990], WMs83a1 [ranked B in 1994], UPs13c [ranked BC in 1990].

## Management Considerations

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

Maintain hydrology of the wetlands on site and control invasive species if necessary. In the mesic hardwood community, maintain older forest canopy, especially where there are rare species that depend on it. If oak regeneration is a goal, patch management may be an option.

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



**recommendations:**

*No information entered.*

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about 11 different private landowners that surround this HCVF site, although much of it is agricultural land. A few adjacent landowners have some forested land or wetland and coordinating with these landowners would be helpful in maintaining/enhancing all the HCVs on the site, especially the native plant communities.

## General Comments

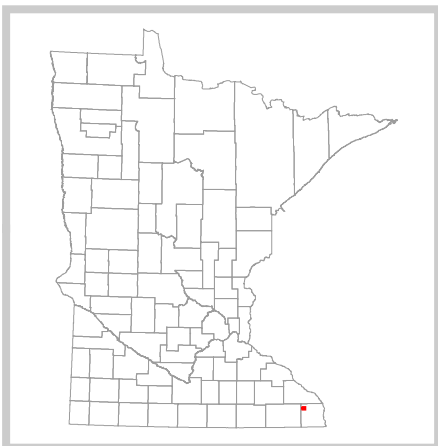
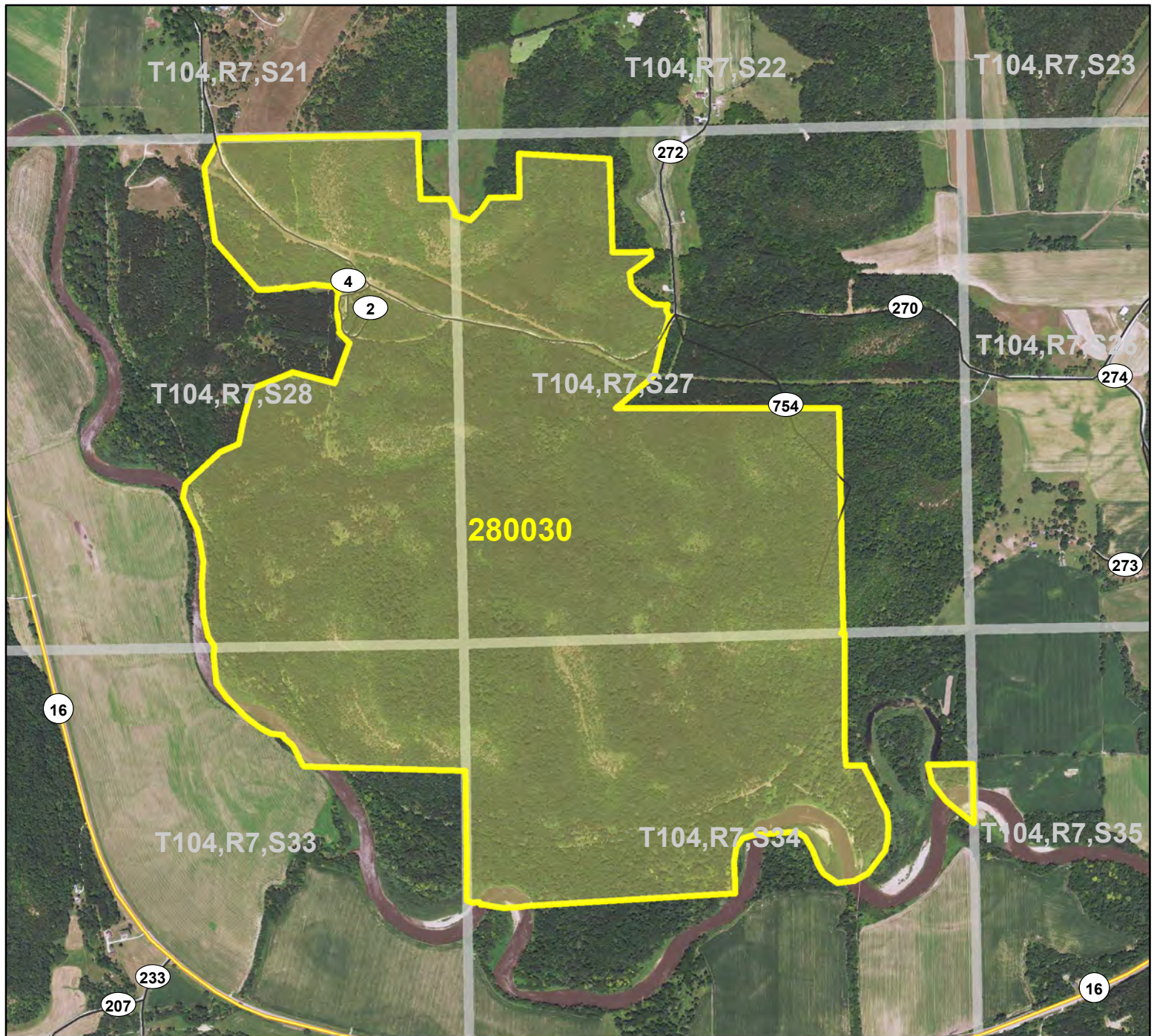
The HCVF site boundary differs from the MBS site boundary so that it matches state land

*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 ...*

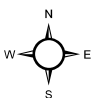
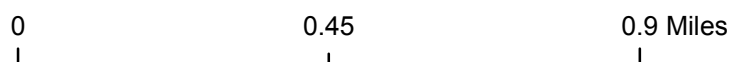
# HCVF Site 280030

## Vinegar Ridge, Houston County



**Legend**

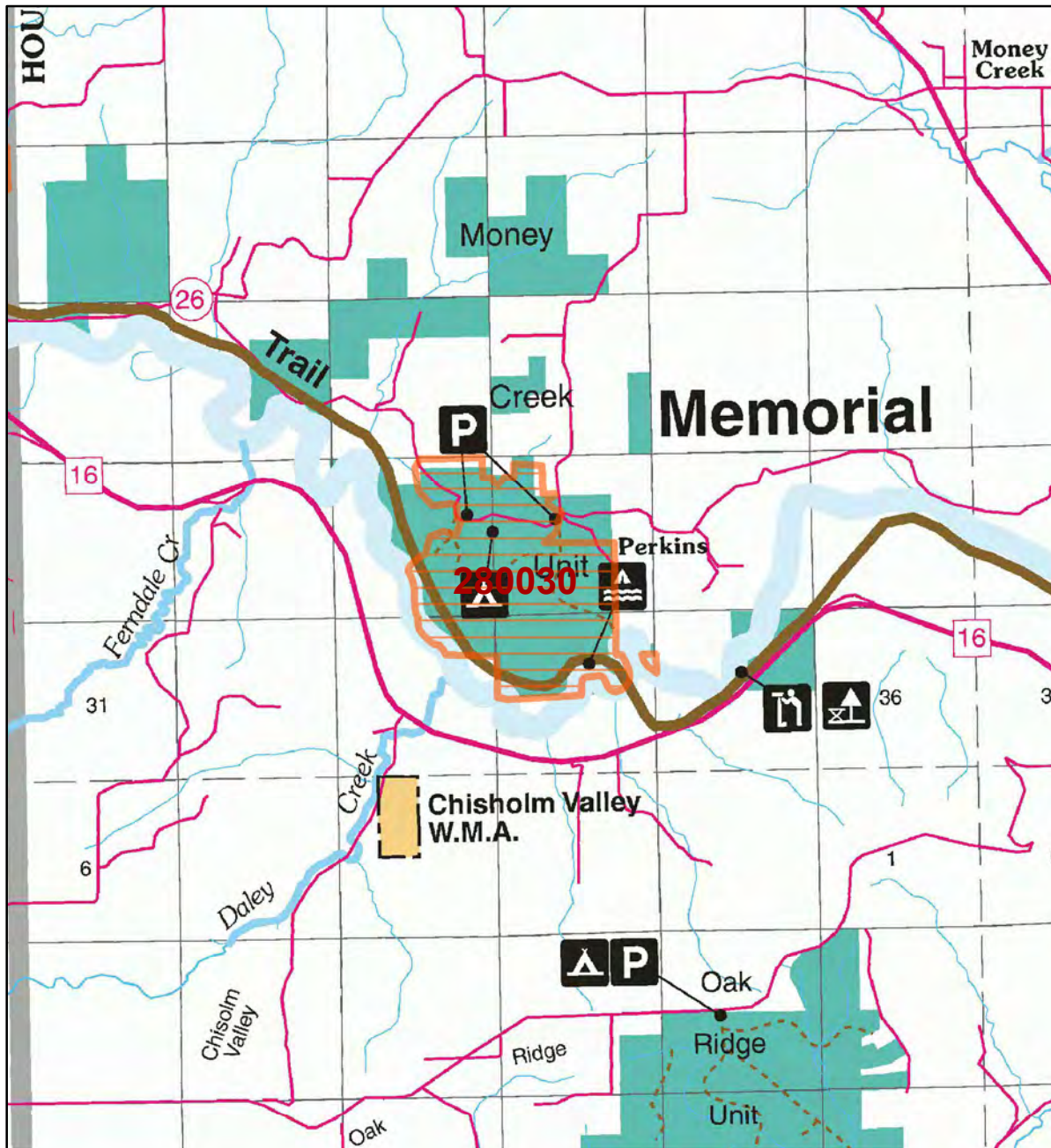
- State Trunk Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections



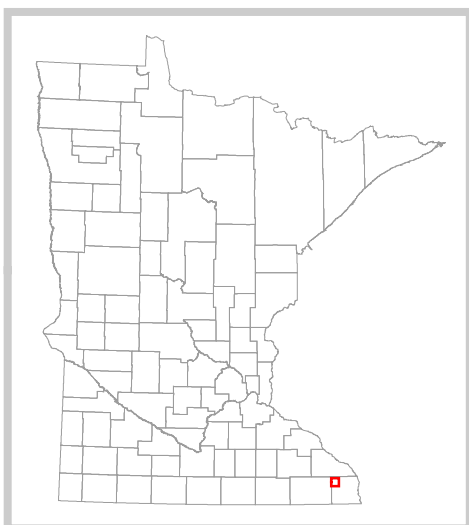


# HCVF Site 280030

## Vinegar Ridge, Houston County



- LEGEND**
- HCVF Sites**
- 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



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 1.75 3.5 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 #:** 280030

**HCVF Name:** Vinegar Ridge

**Acres of HCVF site:** 892.04

**County:** Houston

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Vinegar Ridge/Money Creek Unit (Money Creek Bluff)

## HCVF Summary

This site is a large ridge spur forming a steep bluff in a large, ancient meander of the Root River. The site is highly dissected by small, steep-sided valleys and ravines with many narrow ridges that create a unique landscape with unusual soil patterns. There are several high-quality native plant communities present including bluff prairies and oak forests especially on the broad crests. This site contains the only large intact floodplain forest in the interior Root River, which is a moderate quality forest on channeled alluvium with sand river beaches. State Trail meanders adjacent to the river in the southern portion of the site. This site includes two Representative Sample Areas for UPs14a and FFs59c.

**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): rough-seeded fameflower (*Talinum rugospermum*), Canadian forked chickweed (*Paronychia canadensis*), ovate-leaved skullcap (*Scutellaria ovata*), three-flowered melicgrass (*Melica nitens*), upland boneset (*Eupatorium sessilifolium*), blunt-lobed grapefern (*Botrychium oneidense*), timber rattlesnake (*Crotalus horridus*) clasping milkweed (*Asclepias amplexicaulis*), witch-hazel (*Hamamelis virginiana*), sea-beach needlegrass (*Aristida tuberculosa*), three-leaved coneflower (*Rudbeckia triloba*); HCV1e (Rare species concentration): rough-seeded fameflower (*Talinum rugospermum*), Canadian forked chickweed (*Paronychia canadensis*), ovate-leaved skullcap (*Scutellaria ovata*), three-flowered melicgrass (*Melica nitens*), upland boneset (*Eupatorium sessilifolium*), blunt-lobed grapefern (*Botrychium oneidense* (?)), timber rattlesnake (*Crotalus horridus*), cliff goldenrod (*Solidago sciaphila*), plains wild indigo (*Baptisia bracteata* var. *leucophaea*), three-leaved coneflower (*Rudbeckia triloba*), goat's-rue (*Tephrosia virginiana*), rhombic-petaled evening primrose (*Oenothera rhombipetala*), purple cliff-brake (*Pellaea atropurpurea*), clasping milkweed (*Asclepias amplexicaulis*), witch-hazel (*Hamamelis virginiana*), sea-beach needlegrass (*Aristida tuberculosa*), ebony spleenwort (*Asplenium platyneuron*), Acadian flycatcher, North American racer (*Coluber constrictor*), gopher snake (*Pituophis catenifer*), bald eagle ; HCV1g (Outstanding Key Habitats Examples): oak savanna; HCV2-EBFa (intact forest block): yes; HCV3a (G1 or G2 plant community): UPs13a [not ranked], UPs14a2 [1 record ranked BC in 1992, 1 record ranked C in 1992]; HCV3b (S1 or S2 plant community): UPs14a2 [1 record ranked BC in 1992, 1 record ranked C in 1992], FFs59c [C rank, 1992], UPs13a [not ranked]; HCV3c (Special S3 plant community): UPs13c [1 record ranked C in 1992, 2 records ranked B in 1992, 1 record BC in 1992], FDs38a [C rank, 1992].

## Management Considerations

### Overall management objectives for the entire HCVF:

Clear and use prescribe burning in the oak savannah and prairie areas. Coordinate with EWR non-game and plant ecology specialists on burn season/timing and size of burn area to provide refugia for rare species. Oak woodlands would also benefit from this management. Managing the understory to produce oak advanced regen prior to harvests would help maintaining dry-mesic oak forests. Control invasive species throughout the site. The High Bio Plan for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit. [NOTE: much of this management is already in progress]

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

High Biodiversity Site Plan

### Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)?

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about 11 private landowners that are adjacent to the HCVF site. Much of the adjacent land is managed agriculturally, but coordinating management of the flood plain forest (especially for invasive species) and prairies would be beneficial (this has already been happening with the prairie site; the DNR was given permission to burn the private ownership). The adjacent upland forest would be better maintained/enhanced with landowner coordination and management participation as well.

## General Comments

There is a High Bio Plan written for this site. It is also part of the DNR's Adaptive Forest Management Project portfolio. The HCVF boundary is smaller than the MBS boundary. The HCVF site follows the High Bio Plan boundary (but excludes all private land).

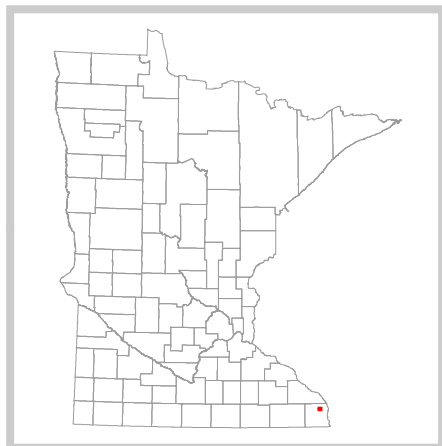
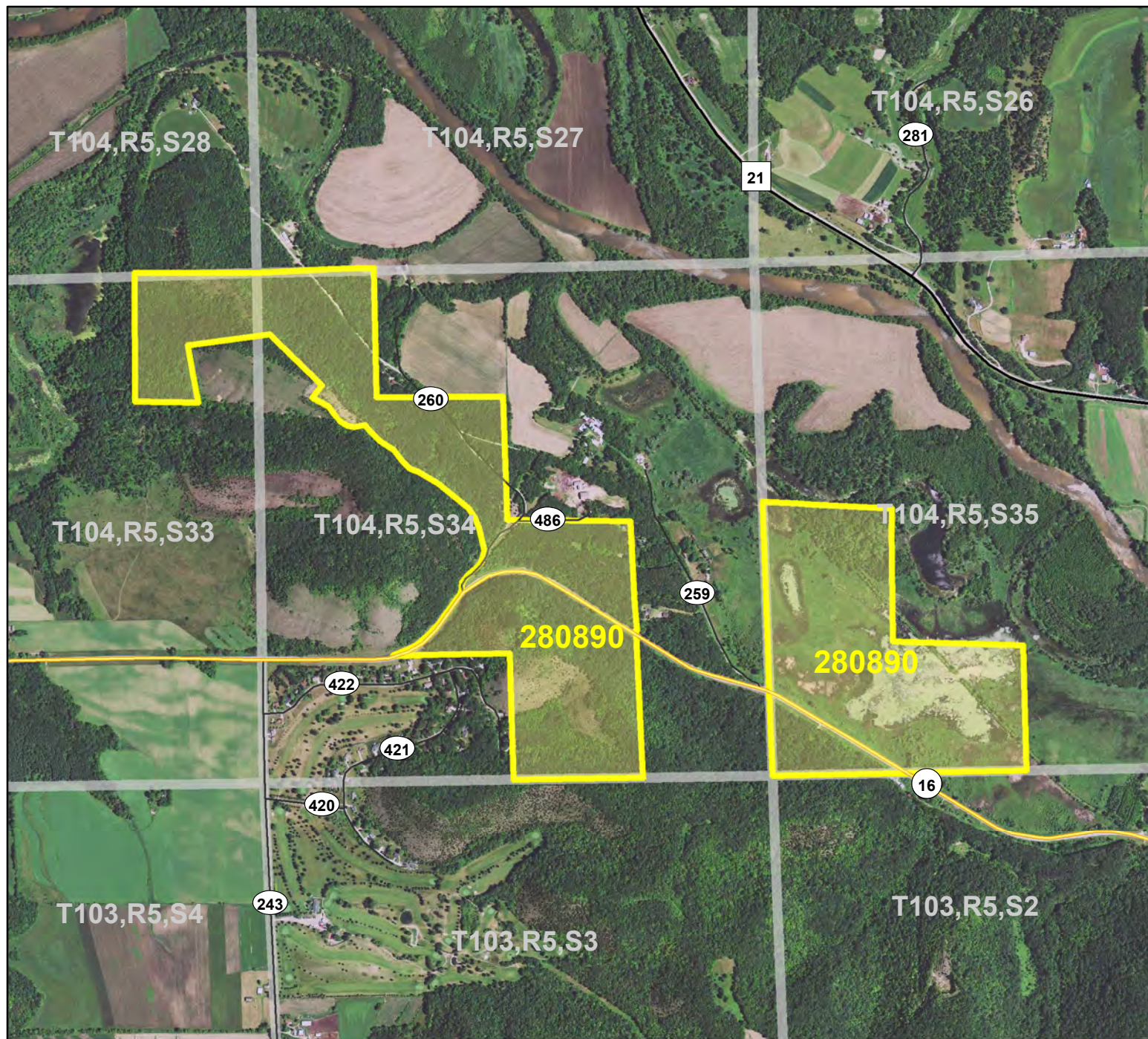
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*... Report End ...*



# HCVF Site 280890

## Mound Prairie, Houston County

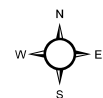


### Legend

- State Trunk Highways
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites

PLS Sections

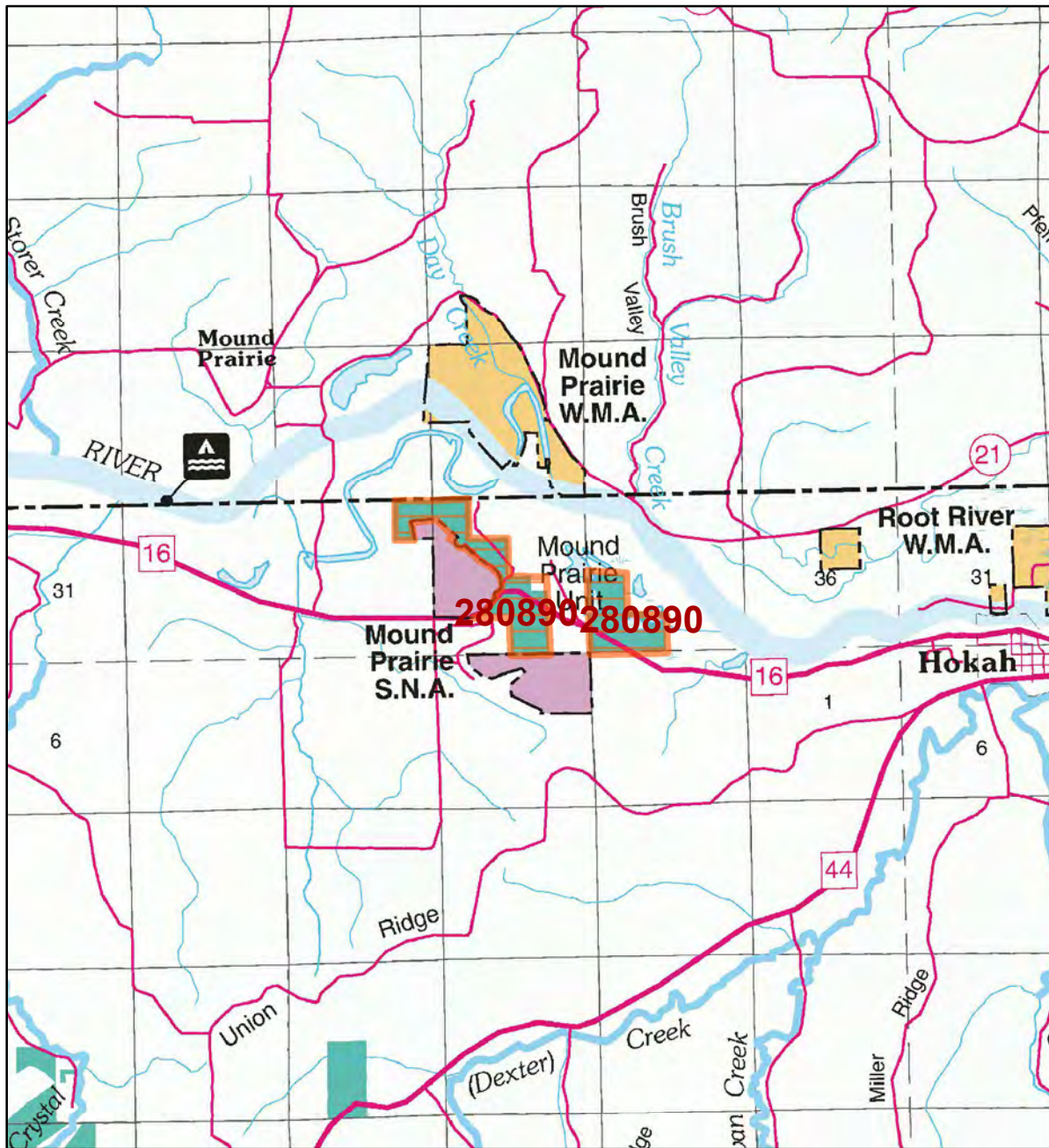
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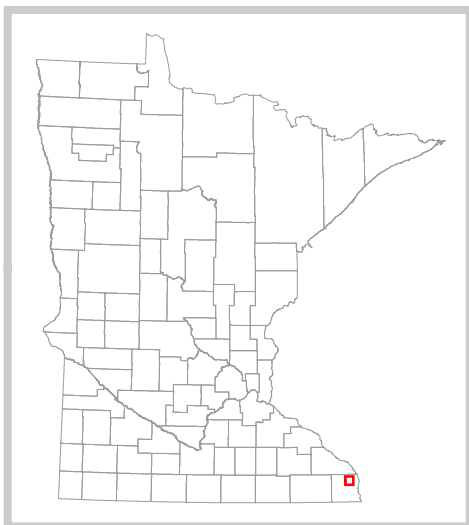
# HCVF Site 280890

## Mound Prairie, Houston County



### LEGEND

- HCVF Sites
- 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



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 1.75 3.5 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 #: 280890**

**HCVF Name:** Mound Prairie

**Acres of HCVF site:** 316.14

**County:** Houston

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Mound Prairie Unit

## HCVF Summary

This site contains the largest and highest quality wetland complex on the Root River floodplain. This seepage meadow receives ground water from the base of the bluff and has peat soils and clear water pools free from sedimentation (these maybe oxbow sloughs or were possibly dredged for the railroad bed that transects the area). The wetland has a very diverse flora with several zones of species dominants. Near the wetland are upland forest and prairies. The prairies are a series of lateral ridge spurs separated by large ravines with the lower slopes that make up part of the sandy bench terrace. North aspects and crests have low to moderate quality oak forests, sand terraces with white pine, and small savanna remnants on fenced ravine knolls.

### **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): One vascular plant species , one reptile/amphibian species; HCV1e (Rare species concentration): Five vascular plant species, three reptile/amphibian species, prairie vole (*Microtus ochrogaster*); HCV1f (Taxonomic group concentration): yes, reptile/amphibians; HCV1g (Outstanding Key Habitats Examples): prairies & non-forested wetlands; HCV3c (Special S3 plant community): UPs13c [4 records, B rank, BC rank, & C rank in 1992 and B rank in 1993], MRn93 [A rank, 1993], FFs59a [no rank]

## Management Considerations

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

Continue to clear and use prescribe burning on prairies. Non-game and plant ecology specialists should be consulted to check on appropriate burn season and burn unit size. Maintain hydrology of the rare wetlands. Control invasive species.

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

*No information entered.*

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

**\_Yes\_**

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

At least 14 larger private land owners, and many smaller ones adjacent to forestry and SNA land. Some land is managed agriculturally, for residences, and as a golf course, but much of it appears to be native forest, prairie, and wetland, on which landowner coordination would benefit all HCVs. A fair amount of adjacent private land has MBS native plant community (NPC) mapping and records for rare species and NPCs. Good coordination is already happening between Forestry and the adjacent Mounds Prairie SNA.

## General Comments

The HCVF boundary is different from the MBS boundaries in that it contains all state certified land within the outstanding, high, and moderate biodiversity categories.

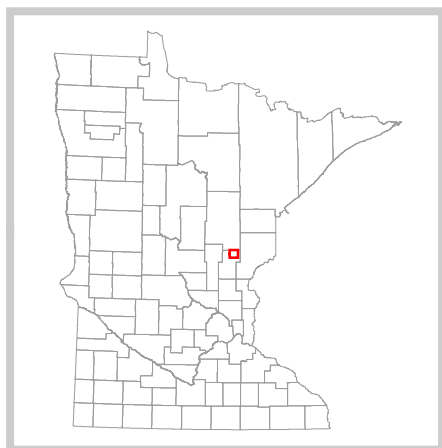
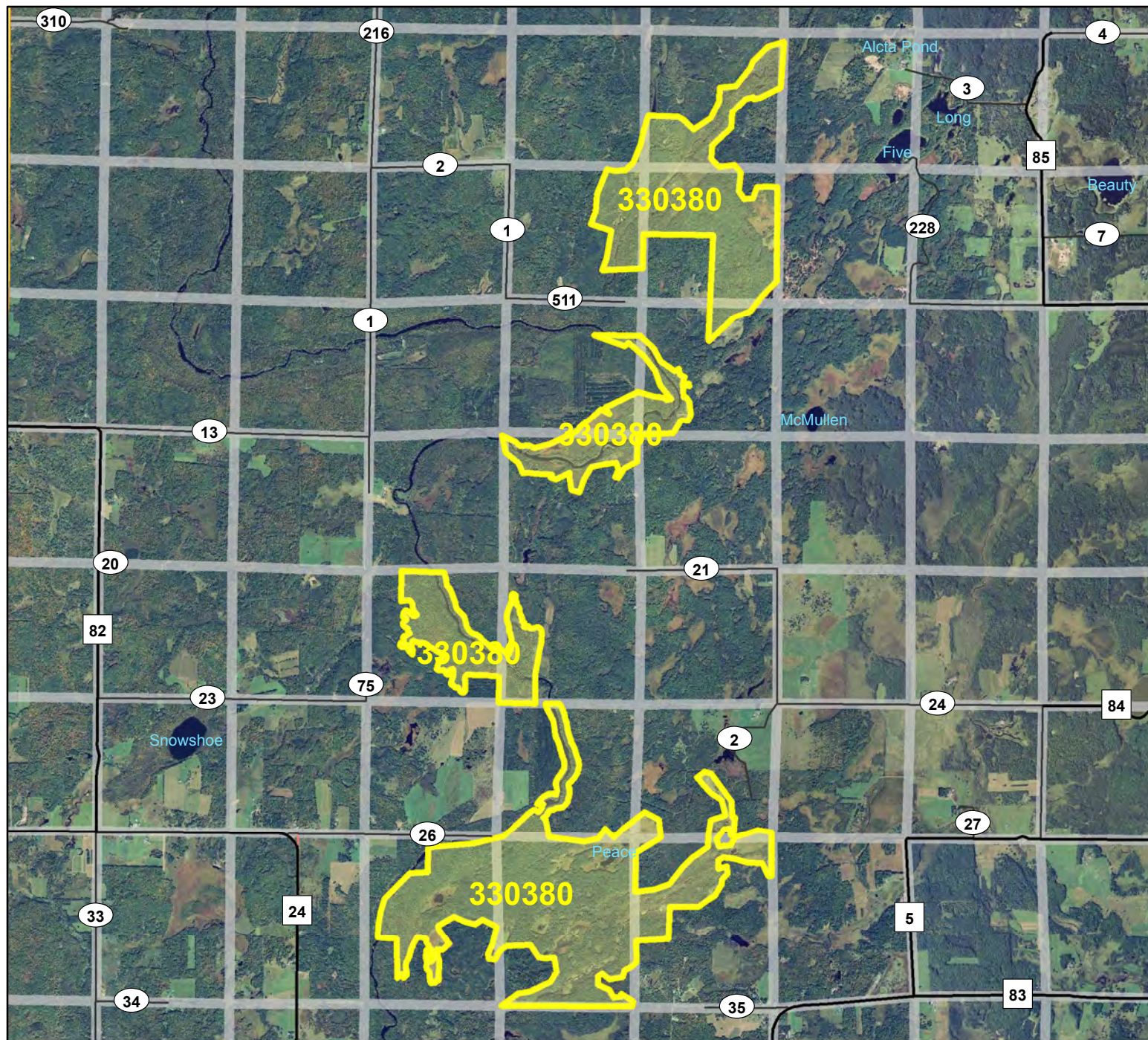
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*... Report End ...*



# HCVF Site 330380

## Snake River State Forest, Kanabec County



### Legend

- State Trunk Highways
- County Highways
- Municipal, Township or Other Roads
- Ramps
- HCVF Sites
- PLS Sections



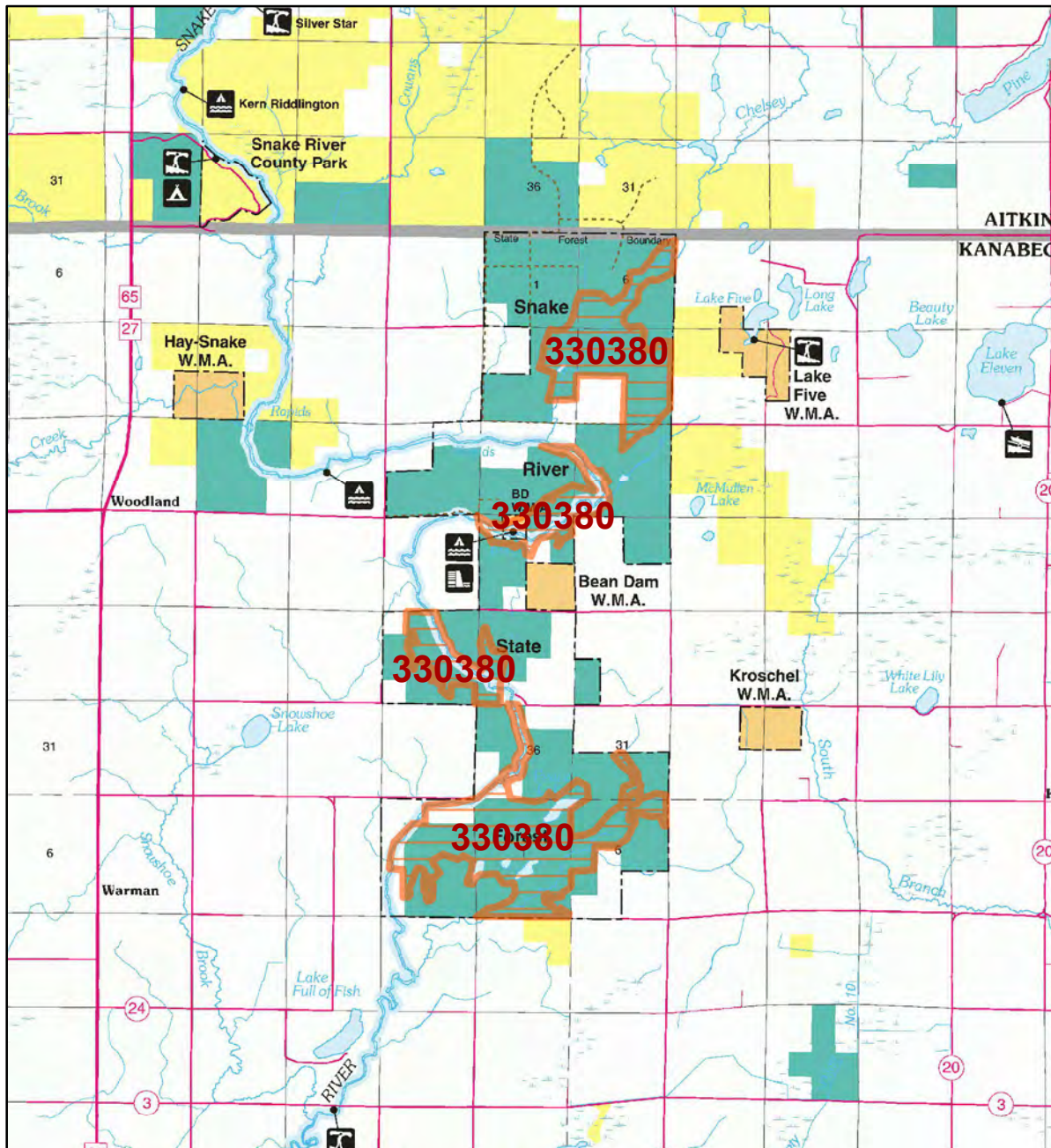
0 1.75 3.5 Miles



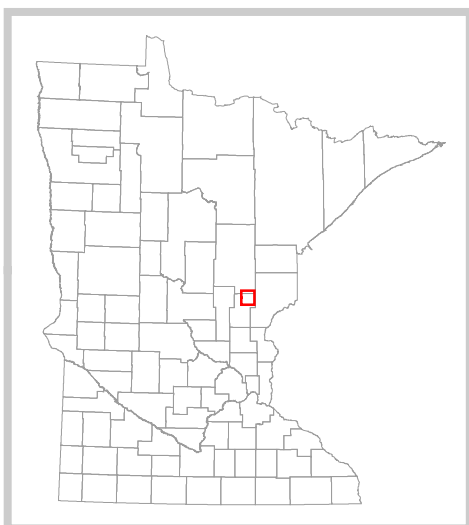


# HCVF Site 330380

## Snake River State Forest, Kanabec County



- LEGEND**
- HCVF Sites**
- 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 Wetland 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)
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  - Overlook
  - Parking
  - Historic Site
  - Geologic Feature
  - Fish Hatchery
  - Forestry Nursery
  - National Great River Road
  - State Great River Road



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

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0 3 6 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 #:** 330380

**HCVF Name:** Snake River State Forest

**Acres of HCVF site:** 2863.83

**County:** Kanabec

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

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

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

## HCVF Summary

The northern portion of the Snake River SF has good quality examples of end and ground moraine features as well as portions of an esker and tunnel valley. Upland forest quality is mixed, but there are good quality native plant communities, including northern hardwood forest, oak forest, lowland hardwood forest, wet meadow, shrub swamp, poor fen, and black ash swamp. The southern portion of the Snake River SF contains good quality upland and wetland vegetation with an interesting band of isolated wetlands (tunnel valley landform?). The site has characteristics typical of an end moraine landform with irregularly rolling topography and numerous small and isolated wetlands. The site contains Peace Lake, which is completely undeveloped with an intact forest and wetland buffer surrounding it.

### 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): bog bluegrass (*Poa paludigena*), round pigtoe (*Pleurobema coccineum*), mucket (*Actinonaias ligamentina*); HCV1e (Rare species concentration): bog bluegrass (*Poa paludigena*), round pigtoe (*Pleurobema coccineum*), mucket (*Actinonaias ligamentina*), thread-like naiad (*Najas gracillima*), butternut (*Juglans cinerea*), gilt darter (*Percina evides*), southern brook lamprey (*Ichthyomyzon gagei*), spike (*Elliptio dilatata*), fluted-shell (*Lasmigona costata*), black sandshell (*Ligumia recta*); HCV1f (Taxonomic group concentration): invertebrate animals associated with river; HCV1g (Outstanding Key Habitats Examples): headwater to large river; HCV2-LMFbi (late-successional forest block): yes; HCV3b (S1 or S2 plant community): MRn83 [not ranked]; HCV3c (Special S3 plant community): FFn57a [not ranked], WFn74 [not ranked], APn91b (SW edge of range)[not ranked], MHc26 on esker and WMn82 in tunnel valley landforms [not ranked]; HCV3e (Old-growth forest): stand 35 O56 (128 ac, MHc26b).

## Management Considerations

### Overall management objectives for the entire HCVF:

Maintain forested and wetland buffers along the Snake River. Maintain older mesic hardwood forest of the unit through uneven aged management and patch harvests.

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

*No information entered.*

### Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)?

Yes

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Private land including intact forest/wetland cover exists around this site. Some of the surrounding area has been cleared for agriculture/pasture and residential uses. The Snake River appears to be buffered by forest. The designated old-growth stand extends onto private land, thus coordination could help retain the entire site as old growth.

## General Comments

The HCVF site boundary does not match the MBS boundary. In consultation with area staff, we trimmed the MBS boundary to align with state land and the area within state land that represented the HCVs.

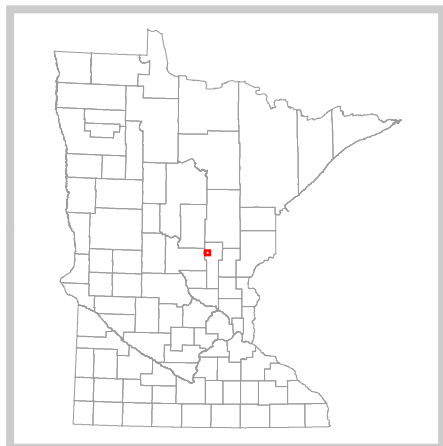
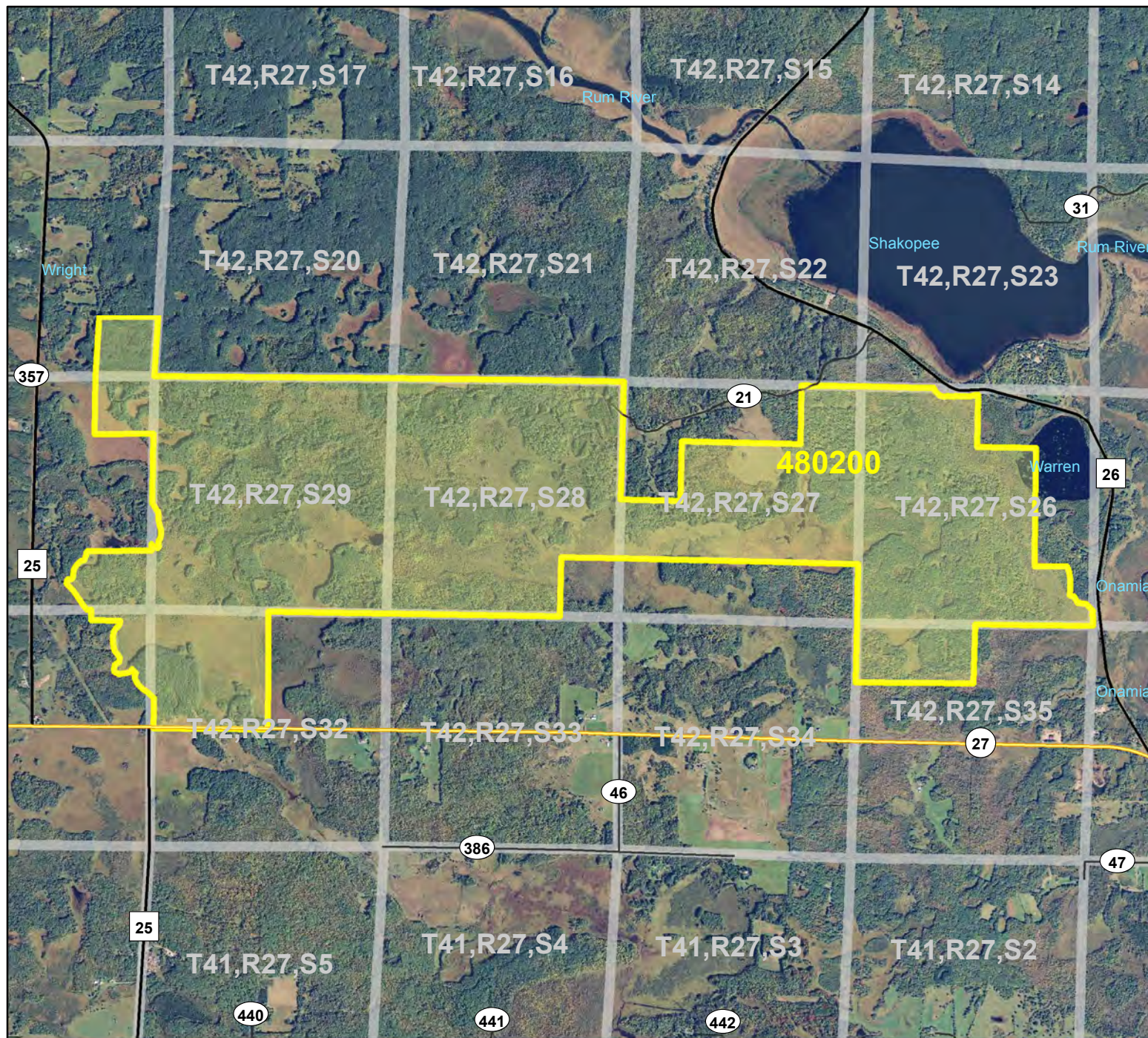
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*... Report End ...*



# HCVF Site 480200

Rum River State Forest--North Unit, Mille Lacs County



## Legend

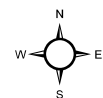
State Trunk Highways

County Highways

Municipal, Township or Other Roads

HCVF Sites

PLS Sections

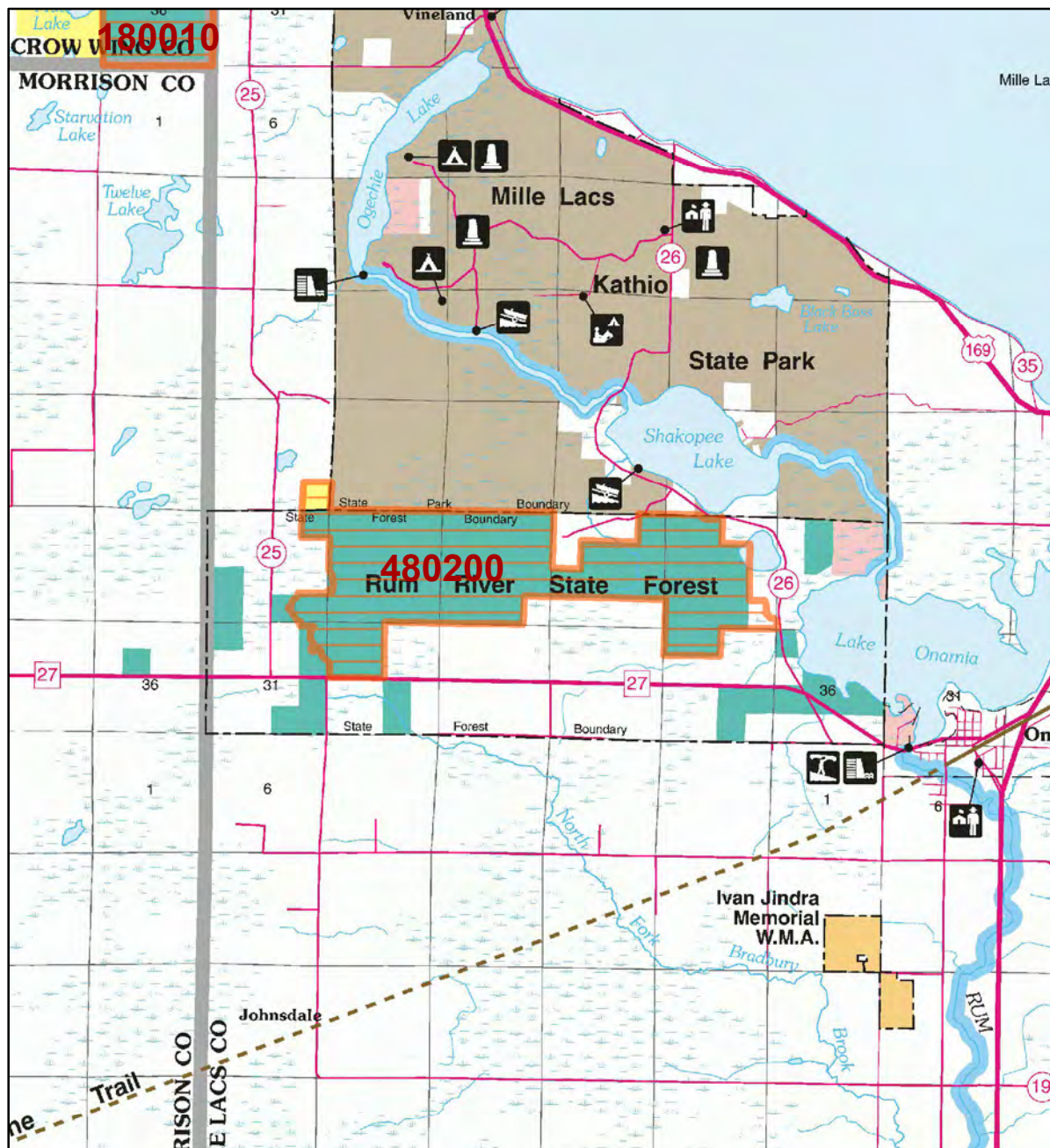


0 1 2 Miles



# HCVF Site 480200

## Rum River State Forest--North Unit, Mille Lacs County



**LEGEND**

**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

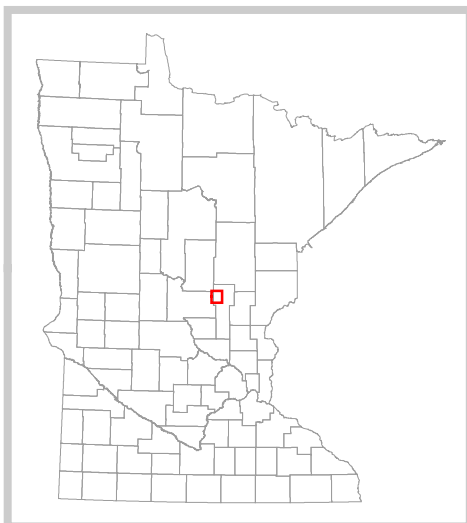
**DESIGNATED WATERWAYS**

- 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 shown in this map are not shown on the ground.



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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 #:** 480200

**HCVF Name:** Rum River State Forest--North Unit

**Acres of HCVF site:** 2427.81

**County:** Mille Lacs

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

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

**Management Unit Name(s) (if applicable):** Rum River State Forest--North Unit

## HCVF Summary

There is an even split of wetland and upland acreage. The wetlands are large and interconnected with gently sloped uplands that are scattered throughout, typically as islands within the wetland matrix. The overall native plant communities appear to be in good condition with the wetland communities in nearly pristine condition. The upland forests have varying degrees of forest management activities. This site is contiguous with Mille Lacs Kathio State Park and provides an important buffer to the park. The site includes the headwaters of a small creek that flows into Shakopee Lake. There was limited ground survey completed here and the NPC quality is assumed to be AB-C quality based on photo interpretation.

### **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.*

HCV1e (Rare species concentration): butternut (*Juglans cinerea*), red-shouldered hawk, bald eagle, other SGCN birds; HCV1g (Outstanding Key Habitats Examples): non-forested wetlands; HCV2-LMFa (Large habitat block): yes both forest and wetland, if adjacent State Park is included (HCVF site is ~2400 ac); HCV3b (S1 or S2 plant community): MRn83; HCV3c (Special S3 plant community): WFn55b [not ranked], FPn72a [not ranked].

## Management Considerations

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

Maintain older forest canopy at the landscape level while recruiting and advancing oak regen through prescribed burning, understory & midstory treatments, and harvest. Make sure harvested patches maintain sufficient canopy for the rare bird species that depend on it. Maintain hydrology in wetland native plant communities. Control for invasive species.

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

*No information entered.*

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

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about 24 private landowners & the Mille Lacs Kathio State Park that surround the HCVF site. The red-shouldered hawk and other SGCN bird species would all benefit from management coordination. Much of the private land is forested or contains wetlands that connect to those in the HCVF site.

## General Comments

The HCVF site follows the same boundaries as the MBS sites except that it only encompasses certified state land.

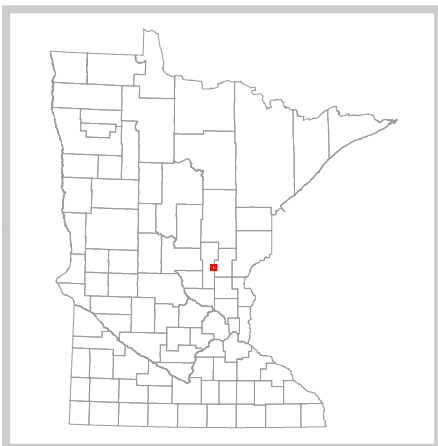
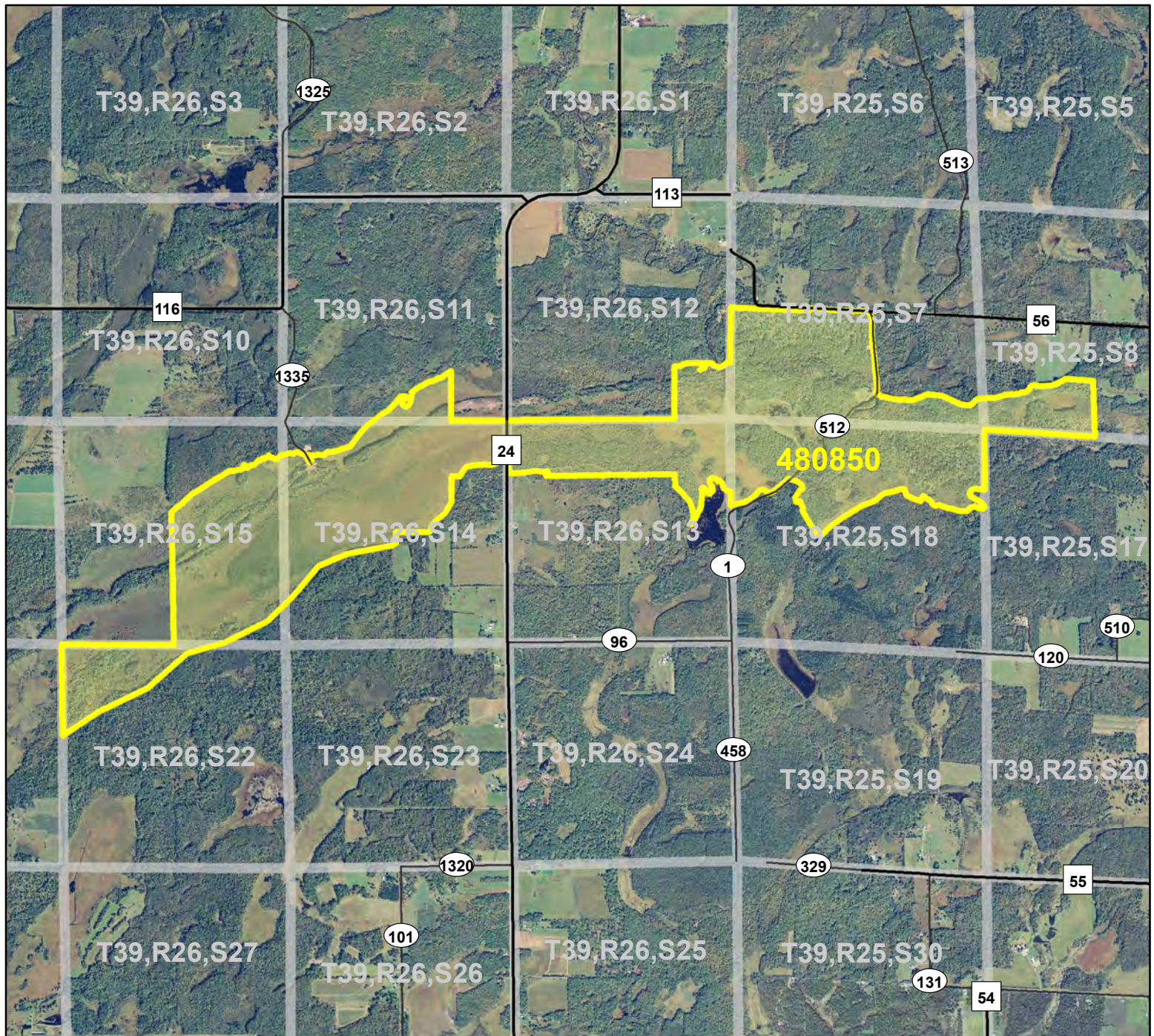
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...*



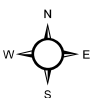
# HCVF Site 480850

## Mille Lacs Esker, Mille Lacs County



**Legend**

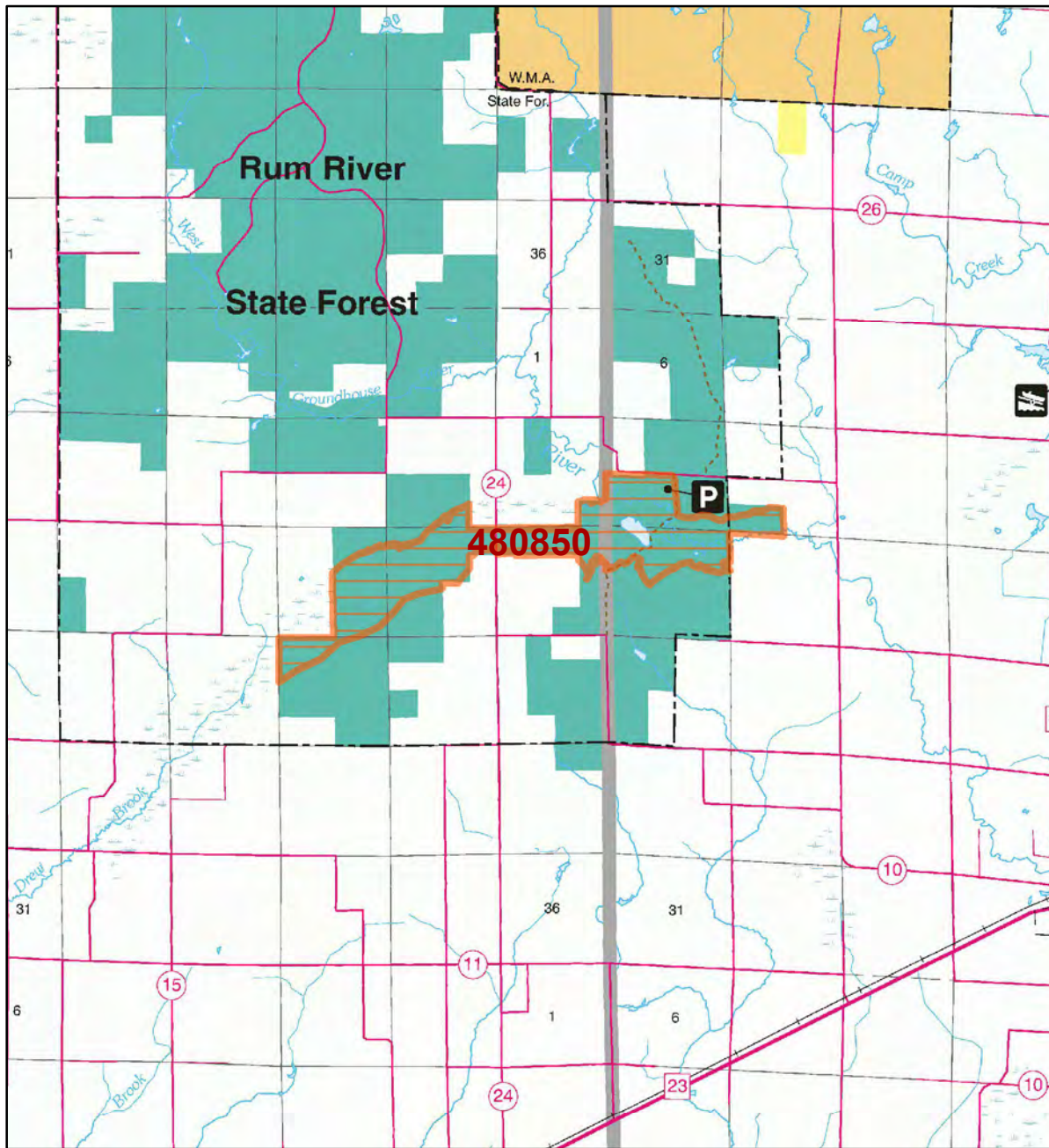
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 480850

## Mille Lacs Esker, Mille Lacs County



### LEGEND

HCVF Sites

### 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

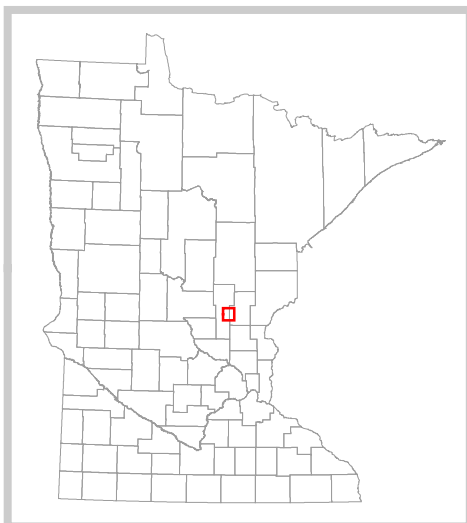
#### DESIGNATED WATERWAYS

- 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

Source: Some of the features shown in this map are derived from the following sources: Minnesota Department of Natural Resources, Minnesota Department of Transportation, State Planning Agency, Minnesota Historical Society and the respective counties.



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 #: 480850**

**HCVF Name:** Mille Lacs Esker

**Acres of HCVF site:** 1408.00

**County:** Mille Lacs

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

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

## HCVF Summary

This site provides a good example of a prominent esker and tunnel valley and includes some of the best quality, most intact natural areas in Rum River State Forest. Mesic hardwood native plant communities include Red Oak-Basswood Forest (MHc36a), Central Dry-Mesic Oak-Aspen Forest (MHc26), and Basswood-Black Ash Forest (MHc47a). Forested wetland plant communities include Rich Tamarack Swamp (FPn72a), Black Ash-Silver Maple Terrace Forest (FFn57a), Black Ash-Yellow Birch-Red Maple-Alder Swamp (WFn64b), Black Ash-Yellow Birch-Red Maple-Basswood Swamp (WFn55b), Poor Tamarack-Black Spruce Swamp (APn81b). Open wetland plant communities include Low Shrub Poor Fen (APn91a), Graminoid Poor Fen (APn91b), Willow-Dogwood Shrub Swamp (WMn82a), Northern Mixed Cattail Marsh (MRn83), and Sedge Meadow (WMn82b). The Groundhouse River flows through a gap in an esker within this block. The wetland communities are likely little changed since presettlement times and uplands were likely logged of at least the pines around the turn of the 20th century. Rare features include Butternut, Blanding's turtle, and Wood's sedge, all of which fill gaps for the WSU Section. Gravel mining is a primary concern regarding the long-term quality of this site.

### **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): one reptile/amphibian species, butternut (*Juglans cinerea*). HCV1g (Outstanding Key Habitats Examples): mixed hardwood-pine forests. HCV2-LMFa (Large habitat block): - 1400 acres both forest and wetland. HCV2-LMFbii (blocks with rare species): yes. HCV3b (S1 or S2 plant community): MRn83. HCV3c (Special S3 plant community): FFn57a, FPn72a, APn91b, MHc47a, WFn55b, Mesic hardwood forest native plant communities (NPCs) on esker, & wetland NPCs in tunnel valley.

## Management Considerations

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

Maintain natural hydrologic processes, avoid any disturbance to wetlands. Manage Mesic Hardwood Forests with minimal canopy opening. Minimize recreational use. Prohibit gravel mining.

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

*No information entered.*

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

Yes

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Potential for coordination with private landowners. Esker and tunnel valley continue many miles - could determine major landowners and offer technical assistance.

## General Comments

*No information entered.*

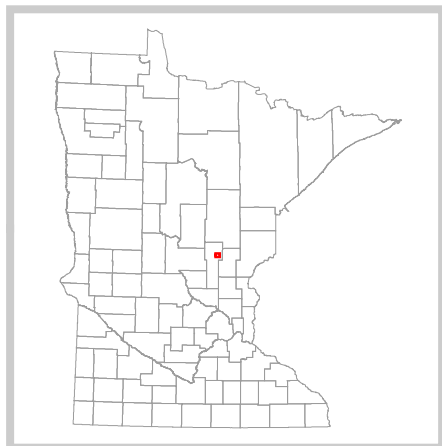
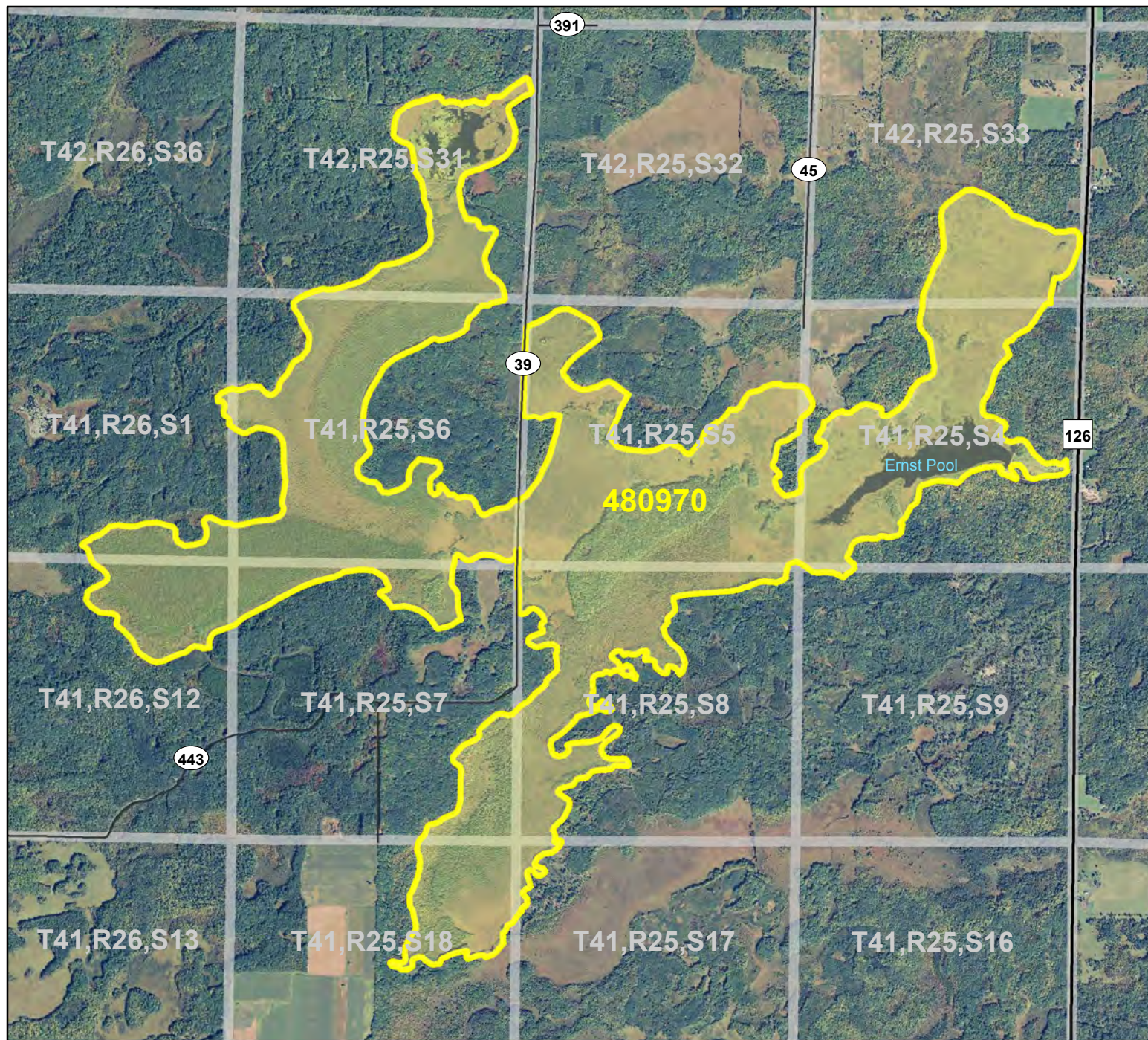
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...



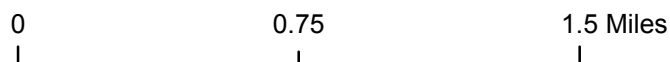
# HCVF Site 480970

## Ernst Pool Peatlands, Mille Lacs County



**Legend**

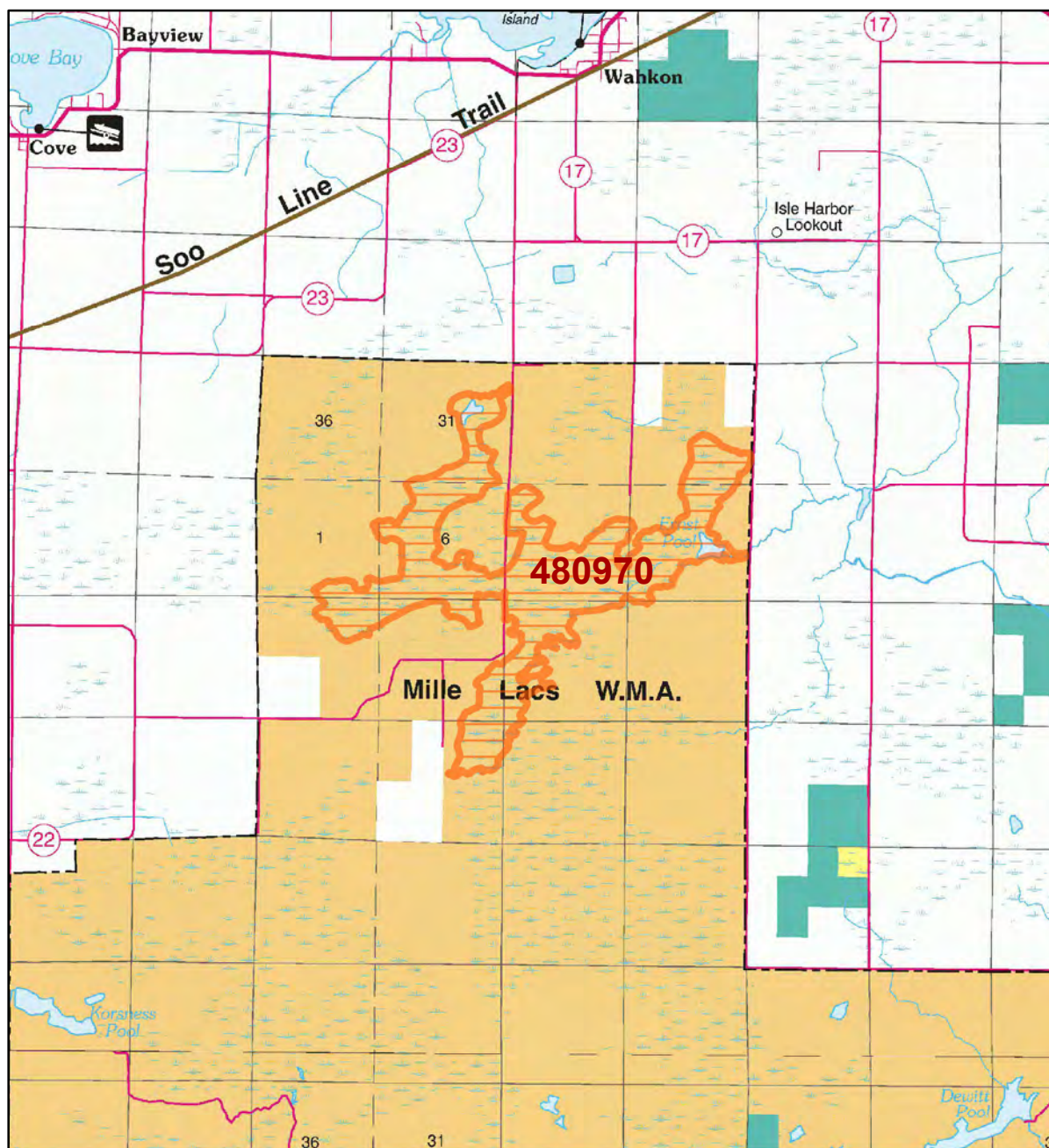
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 480970

## Ernst Pool Peatlands, Mille Lacs County



- LEGEND**
- HCVF Sites**
- 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

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 2.25 4.5 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 #: 480970**

**HCVF Name:** Ernst Pool Peatlands

**Acres of HCVF site:** 1792.77

**County:** Mille Lacs

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Mille Lacs WMA

## HCVF Summary

Interconnected high-quality northern peatland native plant communities near the south edge of their range in the north portion of the Mille Lacs WMA and within the Kathio Moraine LTA. The site was delineated to highlight very good quality wetlands plant communities surrounded by upland forests with more active land management activities. Native plant communities include MHc36a, MHn46a, APn81a, WFn55b, FPn73a, FPn72a, OPn81a, WMn82a, and MRn83. There is a water control structure at the Ernst Pool Outlet and a few beaver impoundments scattered in the east half of the site. The conifer swamps have interesting sharp arc-shaped transition zones and appear to be in very good condition and mostly 80-100+ years old, with a few stands 120+ years old. An upland island of MHc36a forest support populations of the rare plants triangle moonwort and least moonwort. Site has good potential for rare reptile/amphibian species presence. Site is bisected north-south by Olson Road and by an abandoned railroad grade but is otherwise free of trails.

### **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): triangle moonwort (*Botrychium lanceolatum*). goblin fern (*Botrychium mormo*). HCV1e (Rare species concentration): 11 SGCN bird species. HCV1g (Outstanding Key Habitats Examples): forest-lowland coniferous. HCV2-LMFbi (late-successional forest block): yes; HCV3b (S1 or S2 plant community): MRn83. HCV3c (Special S3 plant community): FPn72a. HCV3e (Old-growth forest): potential lowland conifer old growth.

## Management Considerations

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

Maintain natural hydrologic processes, avoid any disturbance to wetlands. Minimal logging of wet forests.  
Manage Mesic Hardwood Forests with minimal canopy opening.

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

*No information entered.*

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

No

## General Comments

Nongame surveys in 2012 found excellent salamander habitat.

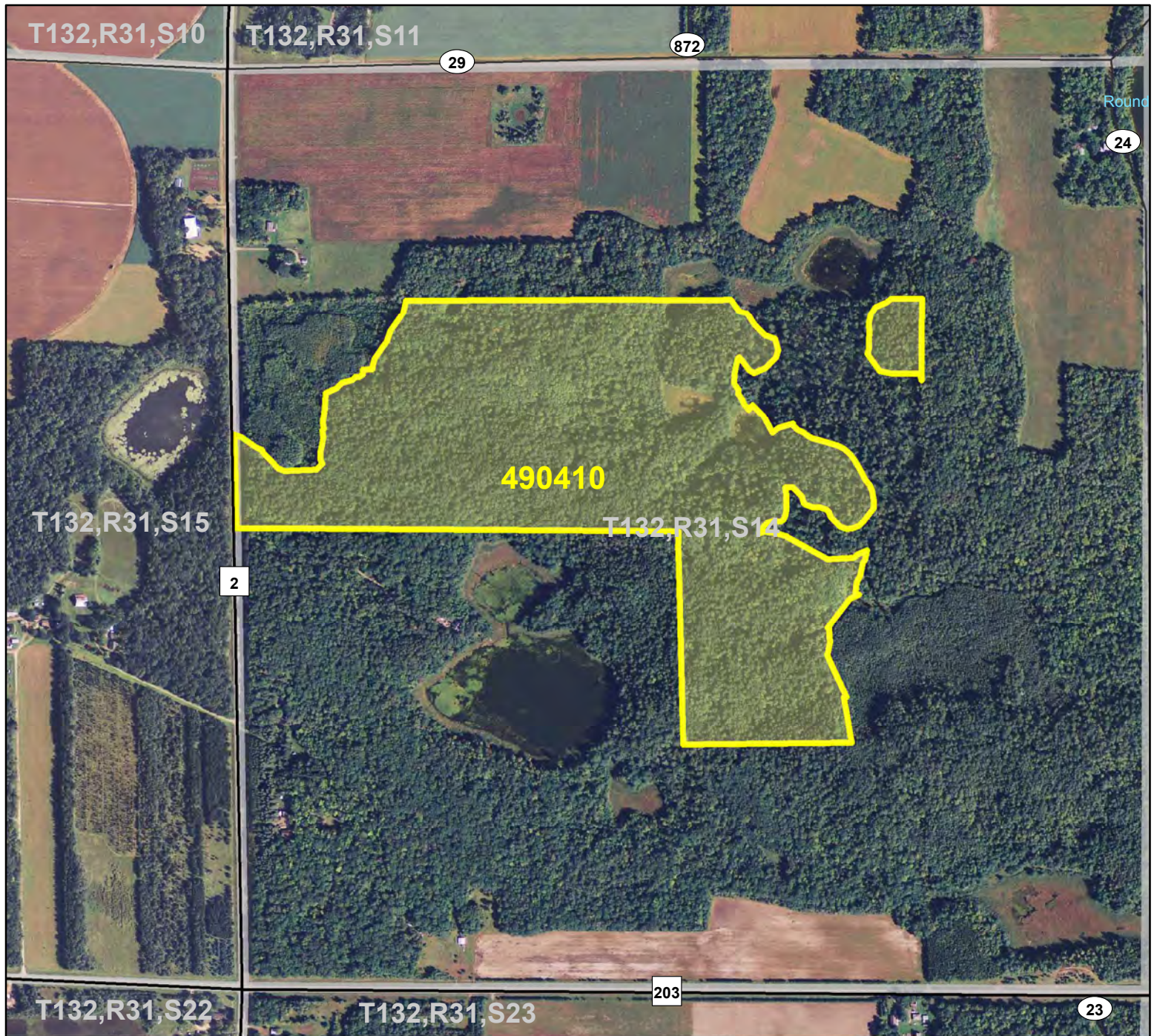
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*... Report End ...*



# HCVF Site 490410

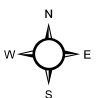
## Scandia Valley, Morrison County



**Legend**

- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections

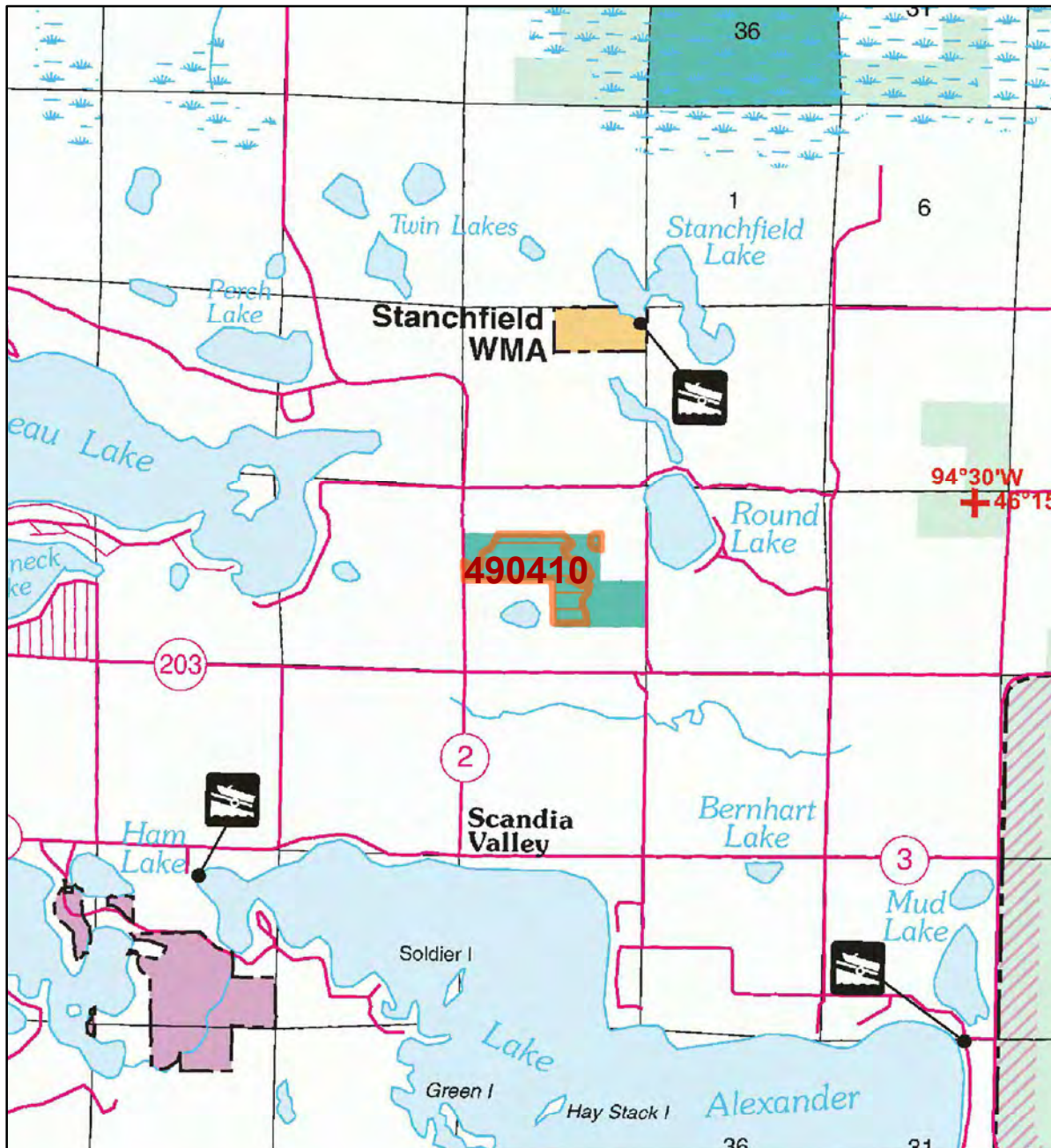
0 0.25 0.5 Miles



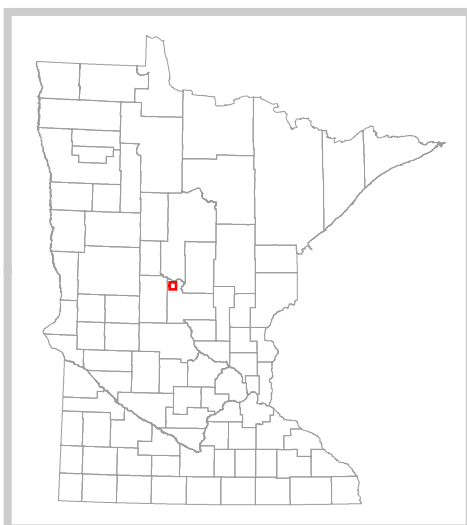


# HCVF Site 490410

## Scandia Valley, Morrison County



- LEGEND**
- HCVF Sites**
- 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



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 1.5 3 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 #:** 490410

**HCVF Name:** Scandia Valley

**Acres of HCVF site:** 111.78

**County:** Morrison

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Scandia Valley

## HCVF Summary

Red pine and mixed pine-hardwoods with 79 acres of mature natural origin red pine and 20 acres of mature, natural origin white pine. Dominant native plant community appears to be FDc34 with some FDc34a presence.

**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.*

HCV1e (Rare species concentration): 5 SGCN bird species; HCV3b (S1 or S2 plant community): FDc34a; HCV3d (Natural origin pine stand): yes (99 acres).

## Management Considerations

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

Maintain native forest cover with species indicative of the FDc34 plant community and take SGCNs into account; facilitate continued transition to the species and structure present in mature and old growth stages for some portion of the site; look for options to retain the presence of mature and regenerating red pine on site even if use of Rx fire is not feasible; and work to minimize encroachment of invasive species. Consider use of Rx fire for pre-sale site prep and/or regeneration; use of small gap harvest treatments to foster natural white pine and oak regeneration; harvest of red pine seed for use in planting back on site; and investigate Diplodia/Sirococcus presence to aid in red pine regeneration option selection.

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

*No information entered.*

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

**\_Yes\_**

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Mature/natural origin pine runs onto private land south of the SW corner of property and other surrounding landowners should be made aware of site values and plans if Rx fire used.

## General Comments

Significant acreage of large diameter natural origin pine (both Red and White) for this landscape. Also contains some large diameter mature oak. Much of site is transitioning to a mature growth stage for the type, with some natural regeneration of white pine occurring.

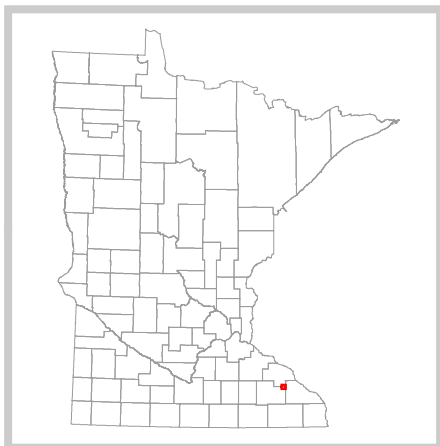
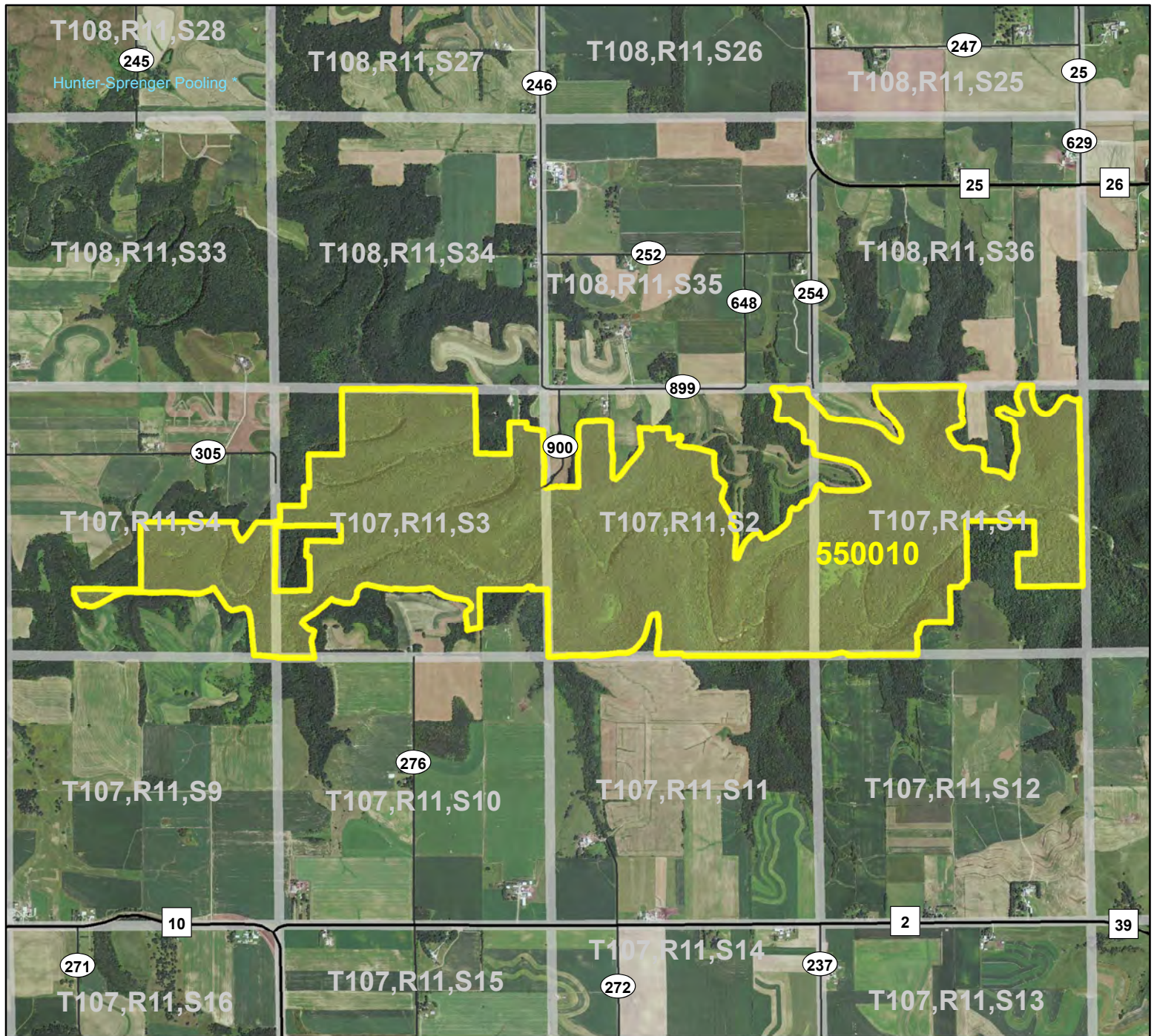
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*... Report End ...*



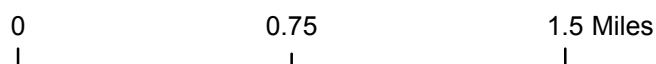
# HCVF Site 550010

## North Fork Whitewater WMA, Olmsted County



**Legend**

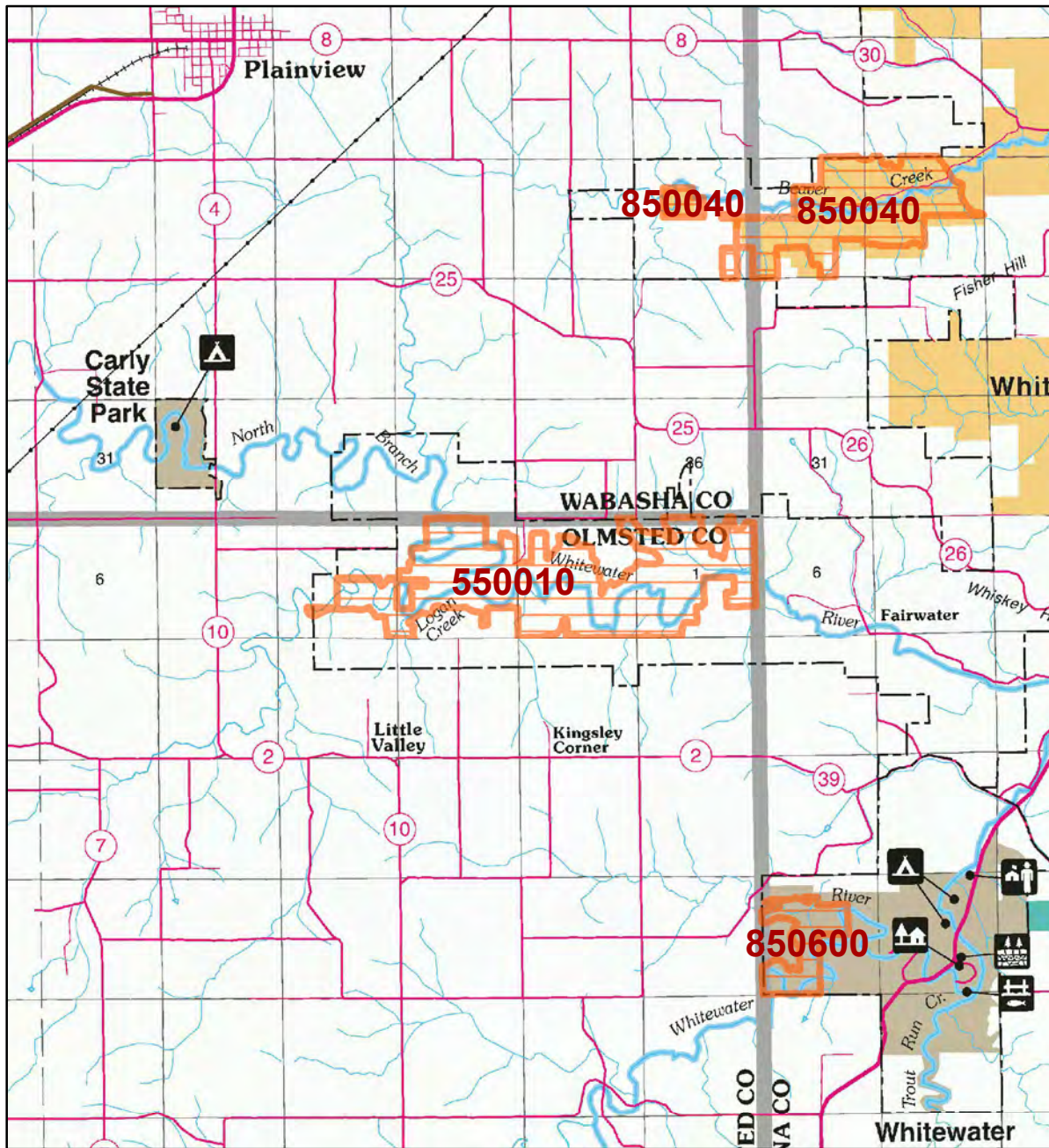
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 550010

## North Fork Whitewater WMA, Olmsted County



**LEGEND**

**HCVF Sites**

**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 Wetland 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**

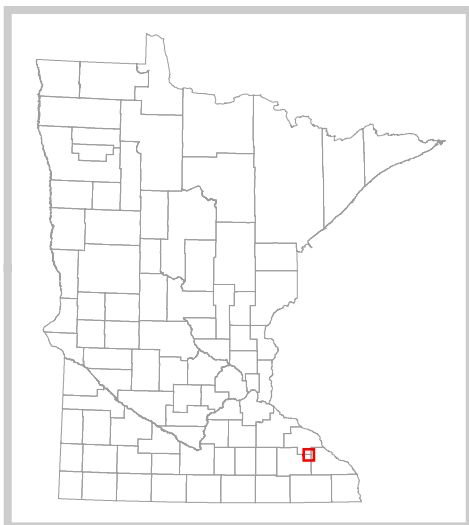
- State Trail
- State Forest Road

**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



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 2.25 4.5 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 #: 550010**

**HCVF Name:** North Fork Whitewater WMA

**Acres of HCVF site:** 1353.04

**County:** Olmsted

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** North Fork Whitewater River Valley (Whitewater WMA)

## HCVF Summary

Approximately 1300 acres of very steep wooded bluffs and bottomlands along the North Fork Whitewater and Logan Branch Whitewater Rivers. Includes moderate cliffs, high-quality maple-basswood & oak forests & high-quality bluff prairies. Forest continues into Wabasha & Winona Counties. This is the most significant site in the county. Designated OG includes white pine, oak, and northern hardwoods stands. The oak and northern hardwood old growth stands are: MHs37b, MHs38a, MHs39b, MHs49. Important site for rare forest birds: Acadian flycatcher, cerulean warbler, Louisiana waterthrush.

### **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.*

HCV1a (G1 or G2 species): Bluff vertigo (*Vertigo meramecensis*), Leedy's roseroot (*Rhodiola integrifolia* ssp leedy). HCV1b (S1 or S2 species): Bluff vertigo (*Vertigo meramecensis*), goldenseal (*Hydrastis canadensis*), leedy's roseroot (*Rhodiola integrifolia* ssp leedyi), glade mallow (*Napaea dioica*). HCV1c (Federal T or E species): *Rhodiola integrifolia* ssp leedy. HCV1e (Rare species concentration): 27 SCGN species. HCV2-EBFa (intact forest block): yes. HCV2-EBFb (old forest): yes. HCV3b (S1 or S2 plant community): CTs43a1, CEs46a2, FFs59c. HCV3c (Special S3 plant community): MHs38a, MHs38c, MHs39b. HCV3d (Natural origin pine stand): white pine (old-growth). HCV3e (Old-growth forest): stand 45 NH73 (6.7 acres), stand 20 WP54 (22 acres), stand 94 WP64 (16 acres), stand 52 O86 (5 acres), stand 95 NH64 (26 acres).

## Management Considerations

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

See Representative Sample Area Memorandum of Understanding for management/protection of lowland terrace forest. Old-growth forest - monitor for invasive species and control if found. Mesic hardwood forest communities should have minimal canopy openings so that forest interior birds and rare plants requiring shade and little disturbance can persist. Fire-dependent forest can be managed with fire and timber cutting to maintain or enhance the native plant communities.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Private landowners

## General Comments

This is a "High Biodiversity Site" identified in the Blufflands SFRMP. Includes North Fork Whitewater Terrace Forest Representative Sample Area.

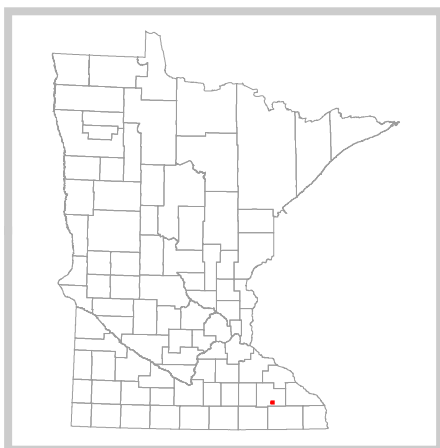
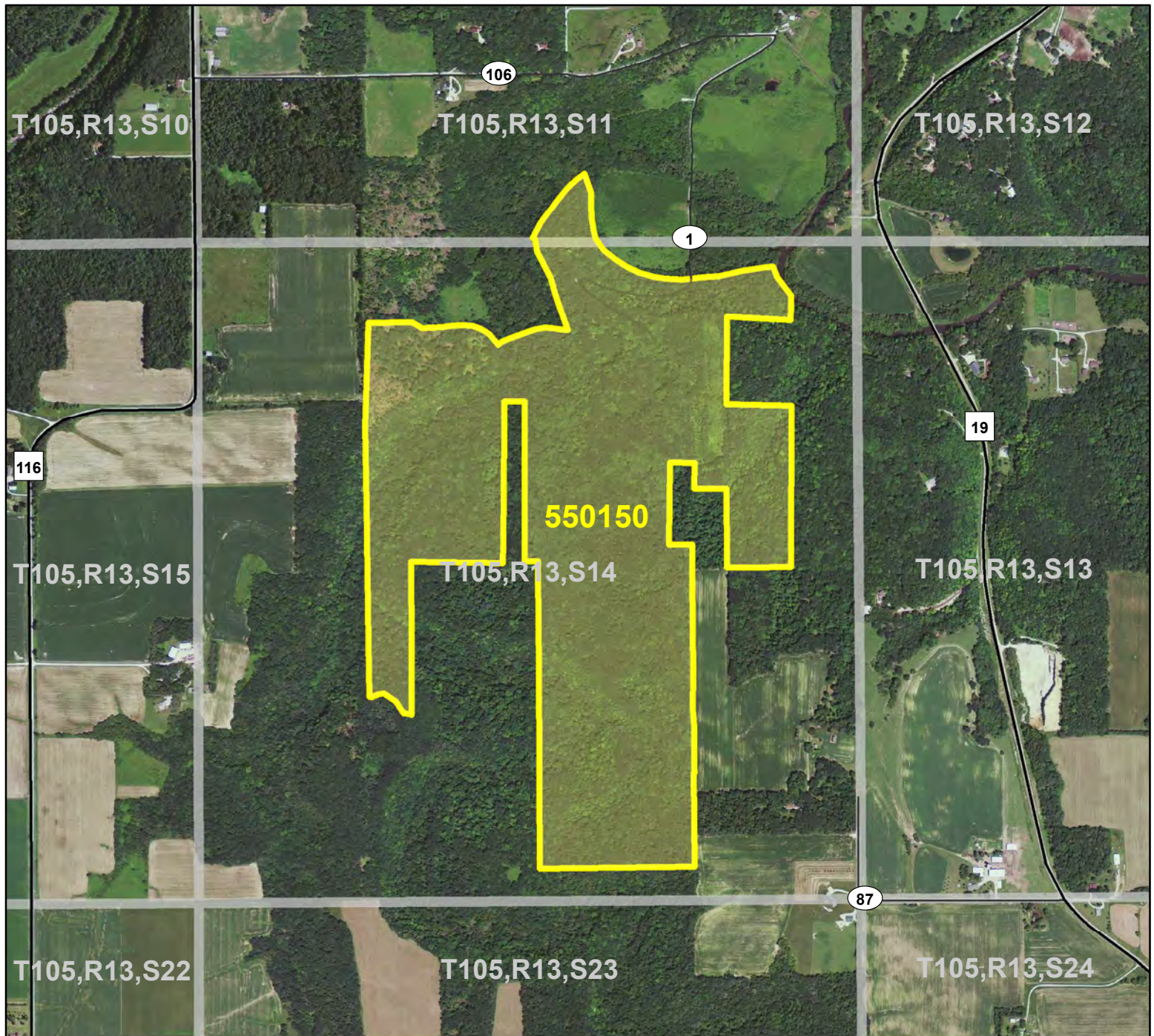
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...



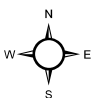
# HCVF Site 550150

## Partridge Creek, Olmsted County



**Legend**

- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections



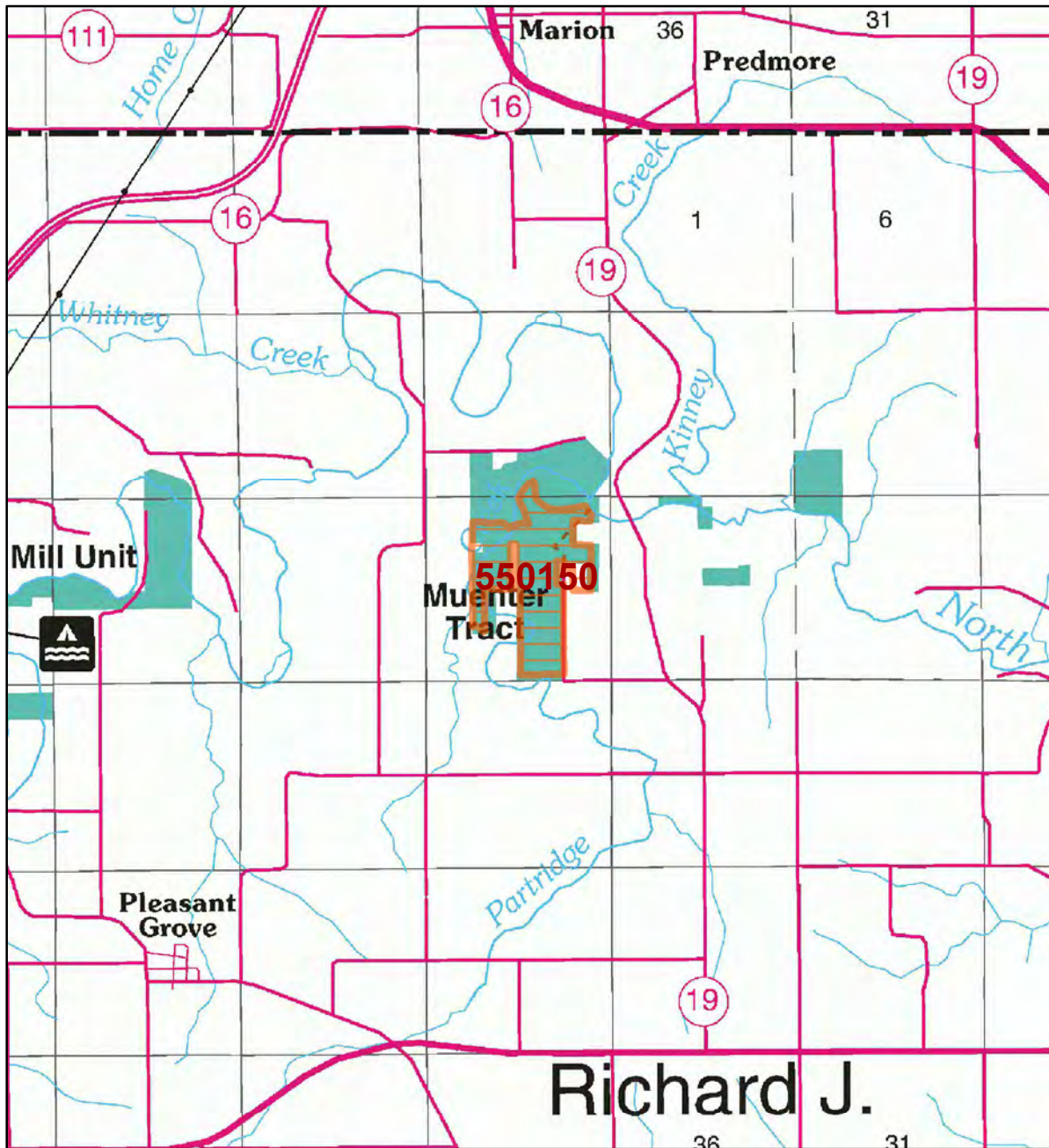
0 0.35 0.7 Miles





# HCVF Site 550150

## Partridge Creek, Olmsted County



### LEGEND

HCVF Sites

### MAP EXPLANATION

#### LAND OWNERSHIP

- County Land
- State Forest Land
- State Park and Recreation Land
- State Wildlife Management Area Land
- State Scientific & Natural Area Land
- National Waterfowl Production Area
- 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

HCVF: Some of the features depicted in this map are identified as such for informational purposes only.

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 1.5 3 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 #: 550150**

**HCVF Name:** Partridge Creek

**Acres of HCVF site:** 226.54

**County:** Olmsted

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Muentert Tract (Partridge Creek Area)

## HCVF Summary

This site is composed of the uplands and a narrow valley along Partridge Creek and the south side of the Root River. There is a large area of even and medium-aged oak forest and woodland. High-quality maple-basswood stand with several rare plant species. The site contains a trout stream and is one of the top forest tracts in the county.

### **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): Five vascular plant species; one reptile/amphibian species ; HCV1e (Rare species concentration): Eight vascular plant species, reptile/amphians species, gravel chub (*Erimystax x-punctata*), ; HCV2-EBFb (old forest): yes; HCV3b (S1 or S2 plant community): MHs49b [C rank, 1994], MHs39a [B rank, 1994]; HCV3c (Special S3 plant community): MHs37a [BC rank, 1994], MHs39b [no rank], FDs38a [no rank]; HCV3d (Natural origin pine stand): yes (stand 33 NH59?); HCV3e (Old-growth forest): stand 25 NH69 (38.4 ac), stand 12 NH69 (12.3 ac.).

## Management Considerations

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

Maintaining older forest where there are rare species in the uplands will be important as will be maintaining mature patches of forest throughout the site. Harvested areas should contain retention areas where mature forest structure and composition is maintained. Depending on site conditions, uneven aged management would be appropriate for MHs49 and MHs39 communities. If oak regeneration is an objective in the MHs37 and FDs38 communities, this could be done with multi-staged harvests or patch harvests depending on size and location of the stand (and its overall contribution to mature forest canopy for the overall HCVF site). Invasive species management may be necessary if infestations arise. The High Bio Plan for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Approximately 1/2 of the private land parcels surrounding the site are forested, including parcels with Partridge Creek frontage. There may be opportunities to coordinate management efforts with neighboring landowners to enhance/maintain HCVs.

## General Comments

There is a High Bio Plan written for this site. The HCVF site follows similar boundaries as the MBS site but excludes all non-state land and lower quality areas within the Outstanding boundary. The HCVF boundary is within the project boundary of the High Bio Plan for this site but is significantly larger than the specified critical zone.

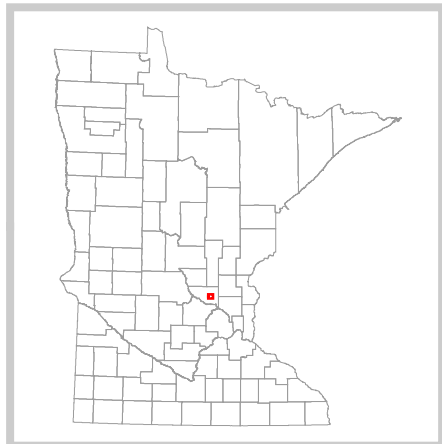
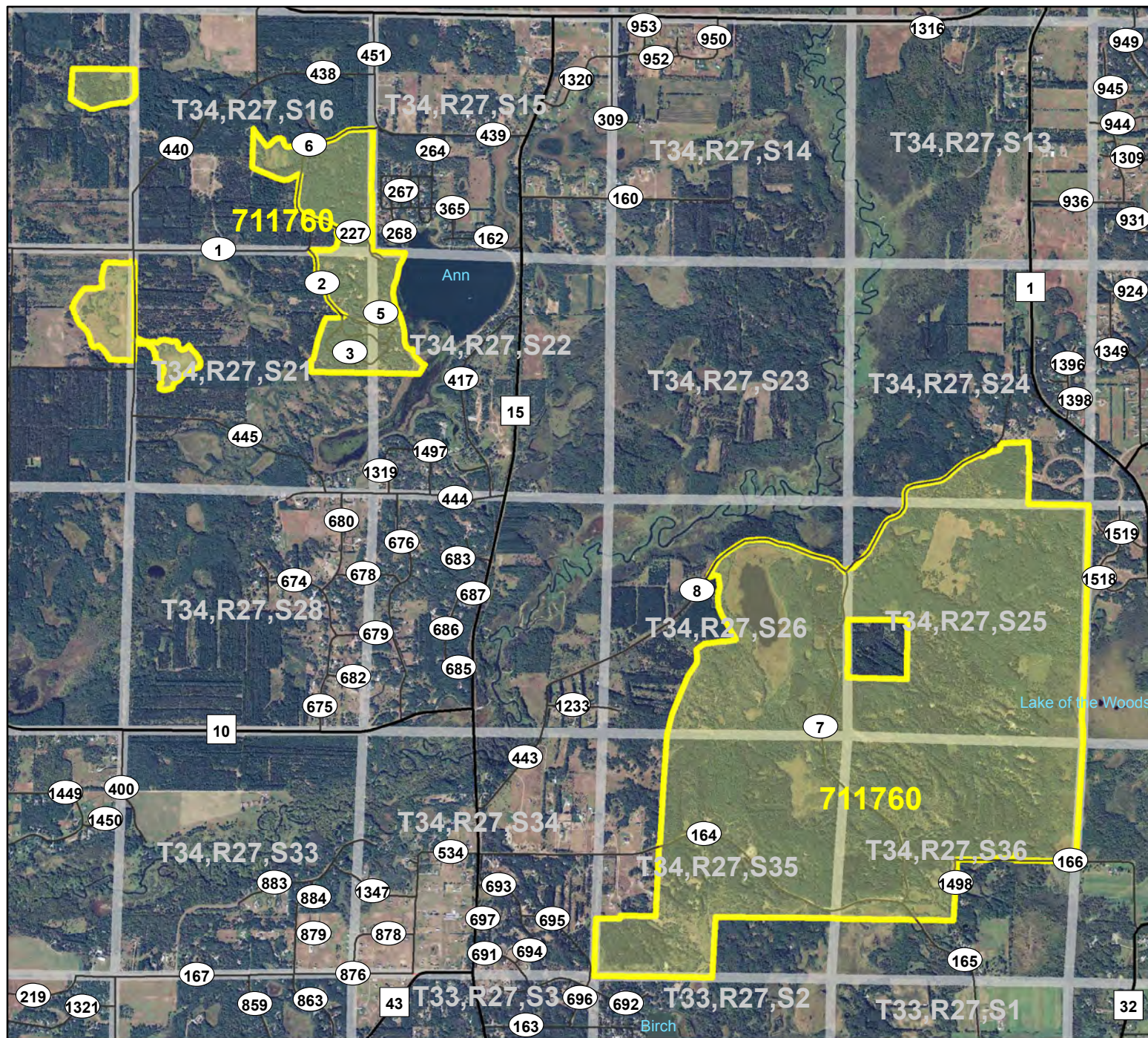
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... Report End ...



# HCVF Site 711760

## Sand Dunes State Forest, Sherburne County



### Legend

- County Highways
- Municipal, Township or Other Roads
- Ramps
- HCVF Sites

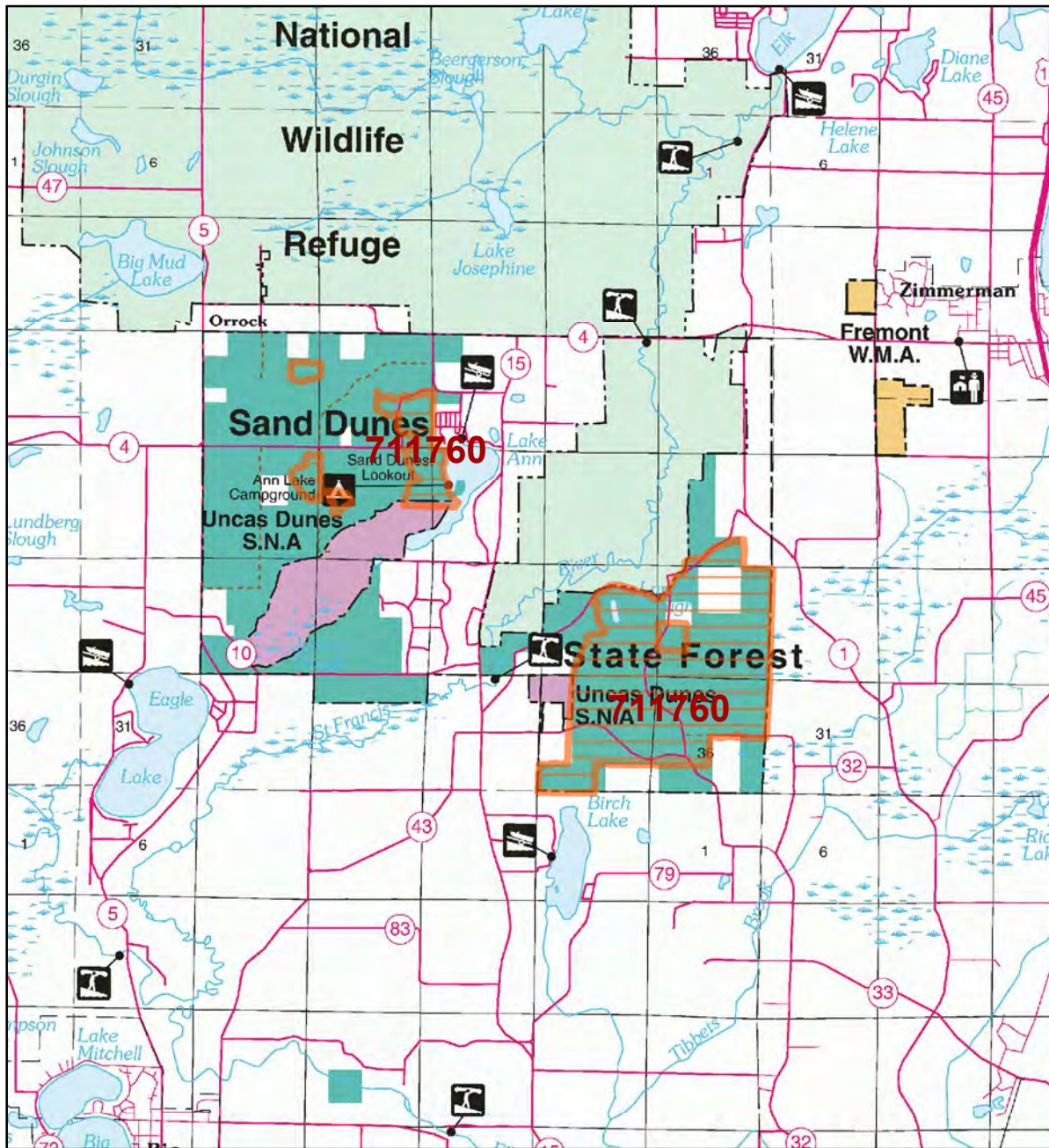
PLS Sections





# HCVF Site 711760

## Sand Dunes State Forest, Sherburne County



**LEGEND**

**HCVF Sites**

**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

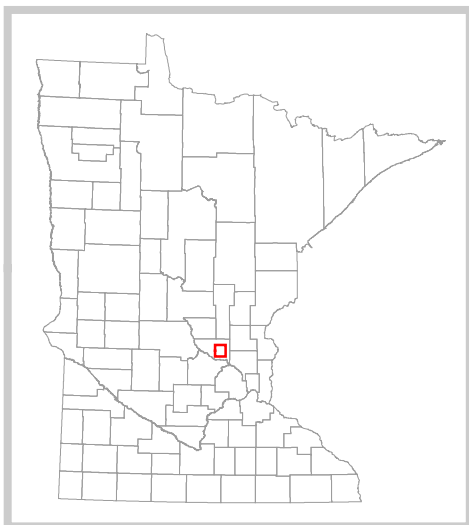
**DESIGNATED WATERWAYS**

- 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

Source: Some of the features shown in this map are derived from the following sources: Minnesota Department of Natural Resources, Minnesota Department of Transportation, State Planning Agency, Minnesota Historical Society and the respective counties.



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 #:** 711760

**HCVF Name:** Sand Dunes State Forest

**Acres of HCVF site:** 2054.53

**County:** Sherburne

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

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

## HCVF Summary

This site is located on a matrix of oak savanna and oak woodland on old dune topography. The site varies greatly in quality but include many rare species of animals and plants that depend on savanna and barren habitats. Planted and ingressing pines are shading out these habitats. The site also contains some S3 wetland communities. An operational management guidance document was written to balance both timber and rare species management long-term goals.

### **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): lance-leaved violet (*Viola lanceolata*), annual skeletonweed (*Shinnersoseris rostrata*), Blanding's turtle (*Emydoidea blandingii*), Uncas skipper (*Hesperia uncas*) HCV1e (Rare species concentration): [barrens and sand dunes species]= lance-leaved violet (*Viola lanceolata*), annual skeletonweed (*Shinnersoseris rostrata*), small-leaved pussytoes (*Antennaria parvifolia*), beach-heather (*Hudsonia tomentosa*), creeping juniper (*Juniperus horizontalis*), sea-beach needlegrass (*Aristida tuberculosa*), Blanding's turtle (*Emydoidea blandingii*), Uncas skipper (*Hesperia uncas*), red-shouldered hawk, jumping spider (*Metaphidippus arizonensis*), plains pocket mouse (*Perognathus flavescens*), northern barrens tiger beetle (*Cicindela patruela patruela*), gopher snake (*Pituophis catenifer*), northern myotis (*Myotis septentrionalis*), Leonard's skipper (*Hesperia leonardus leonardus*); HCV1g (Outstanding Key Habitats Examples): oak savanna, dune habitat, non-wetland forest; HCV3a (G1 or G2 plant community): UPs14a, UPs14a2, FPs63a; HCV3b (S1 or S2 plant community): UPs14a2 (7 records from 1989 range from B to CD in quality; 3 records from 2001 range from BC to CD in quality), UPs23a (C rank in 2001), FSs63a (B rank, 1989); HCV3c (Special S3 plant community): OPp91 (C rank in 1989).

## Management Considerations

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

Management should follow the guidance given in the "Operational Management Plan for Sand Dunes State Forest," (written by an interdisciplinary team and approved by three DNR divisions) and any subsequent management plan documents. See this website for plan details:  
<http://www.dnr.state.mn.us/forestry/subsection/anoka/preliminary.html>.

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

Sand Dunes SF Operational Mgmt. Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are at least 42 private landowners that surround the HCVF site. In addition, the Uncas Dunes SNA and Sherburne National Wildlife Refuge border some of the site. Many of the HCVs will benefit from management coordination. The SNA and Wildlife Refuge should be key partners in management efforts.

## **General Comments**

The HCVF boundaries follow the immediate and eventual management areas decided upon in the Operational Management Plan for Sand Dunes State Forest.

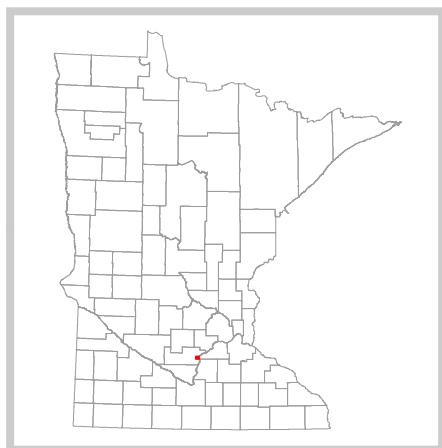
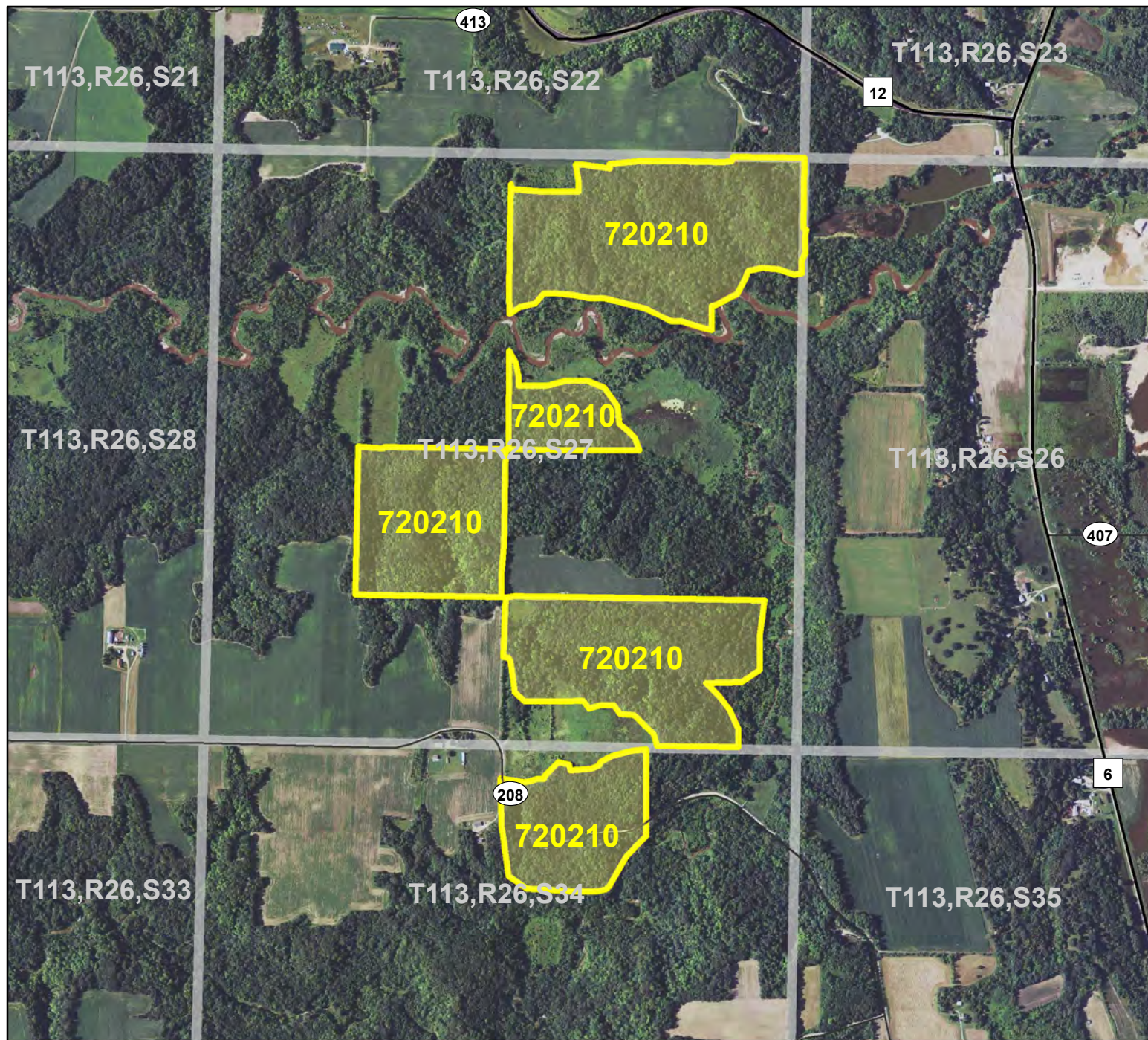
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*... Report End ...*



# HCVF Site 720210

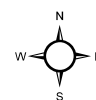
## High Island Creek, Sibley County



**Legend**

- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections

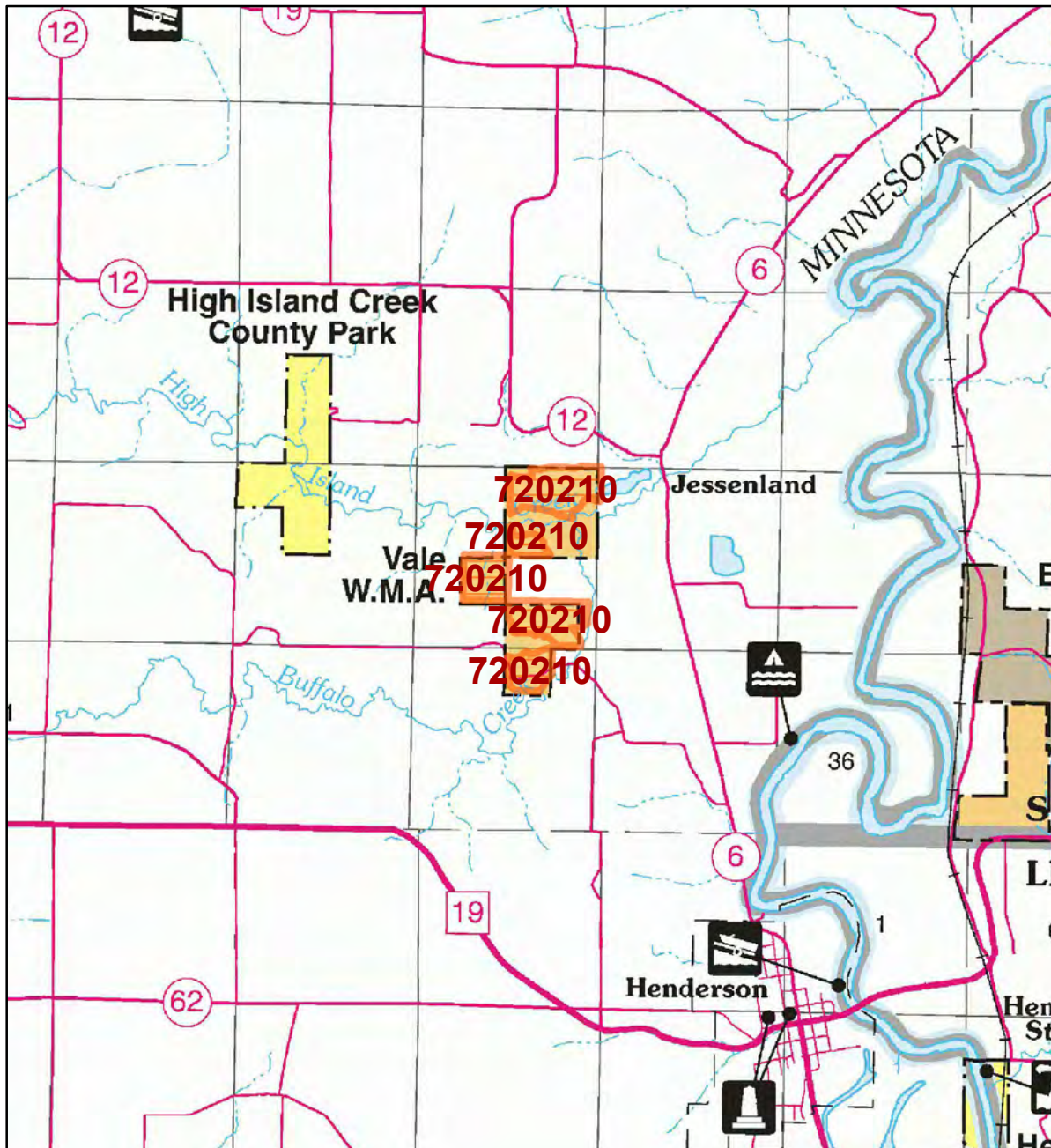
0 0.4 0.8 Miles





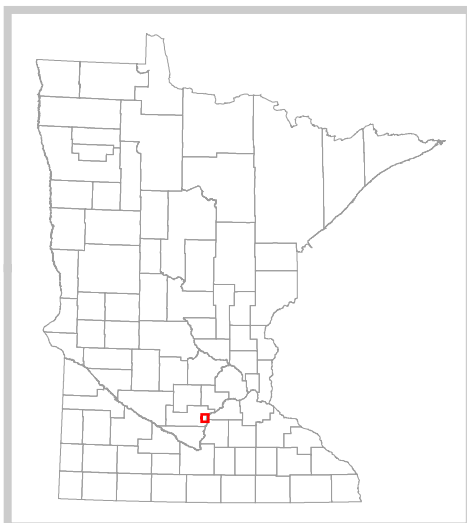
# HCVF Site 720210

## High Island Creek, Sibley County



### LEGEND

- HCVF Sites
- MAP EXPLANATION**
- LAND OWNERSHIP**
  - County Land
  - R Recreation Area under 40 acres
  - State Forest Land
  - State Park and Recreation Land
  - State Wildlife Management Area Land
  - W W.M.A.'s under 40 acres
  - State Scientific & Natural Area Land
  - S S.N.A.'s under 40 acres
  - National Waterfowl Production Area
  - N 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 D.N.R. Office
  - I Travel Information Center
  - R Rest Area (with facilities)
  - R Rest Area (limited facilities)
  - C Campground
  - W Watercraft Camping
  - E Equestrian Camping
  - W Water Access
  - C Carry-in Access
  - D Dam (on designated canoe route)
  - F Fishing Pier
  - O Overlook
  - P Parking
  - H Historic Site
  - G Geologic Feature
  - F Fish Hatchery
  - N Forestry Nursery
  - N National Great River Road
  - S State Great River Road



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 1.5 3 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 #:** 720210

**HCVF Name:** High Island Creek

**Acres of HCVF site:** 206.48

**County:** Sibley

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-08-15

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Vale WMA

## HCVF Summary

This WMA contains steep bluffs, level uplands, and ravines west of Buffalo Creek and north of High Island Creek that support mesic hardwood forest ranging from BC to C rank. The WMA contains part of two MBS sites that together constitute one of the largest forested areas left in the Big Woods subsection. Parts of the forest outside of the WMA are mature and high quality. The large population of butternut (*Gymnocladus dioica*) and concentration of SGCN forest bird species are noteworthy.

### 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.*

HCV1e (Rare species concentration): butternut (*Gymnocladus dioica*), 10 SGCN bird species. HCV2-EBFa (intact forest block): yes. HCV2-EBFc (forest block in ag. landscape): yes. HCV3b (S1 or S2 plant community): MHs39a. HCV3c (Special S3 plant community): MHs38c [C rank, 1996].

## Management Considerations

### Overall management objectives for the entire HCVF:

Maintain overall canopy cover and allow areas that have been selectively logged to recover canopy cover; control invasive shrub species and invasive herbaceous species, if present.

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

*No information entered.*

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

**\_Yes\_**

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

All HCVs benefit. Forested plant communities, rare species, and SGCNs extend onto private land and High Island Creek County Park.
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## General Comments

No information entered.
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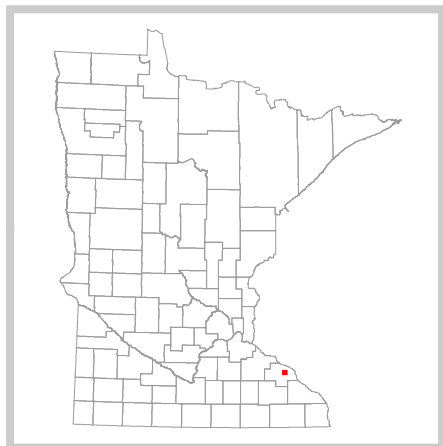
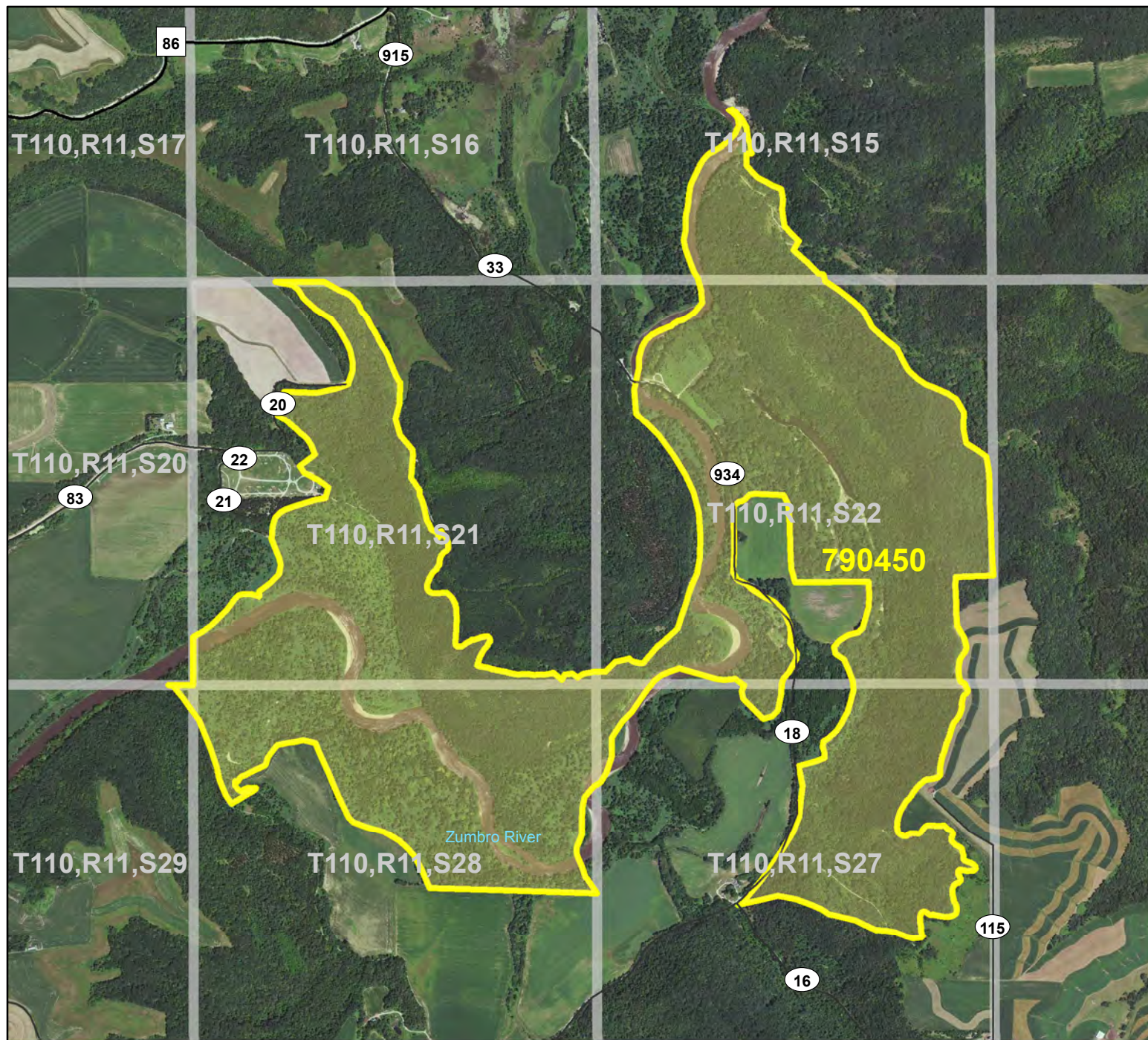
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*... Report End ...*



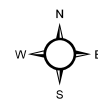
# HCVF Site 790450

## Zumbro Bottoms, Wabasha County



**Legend**

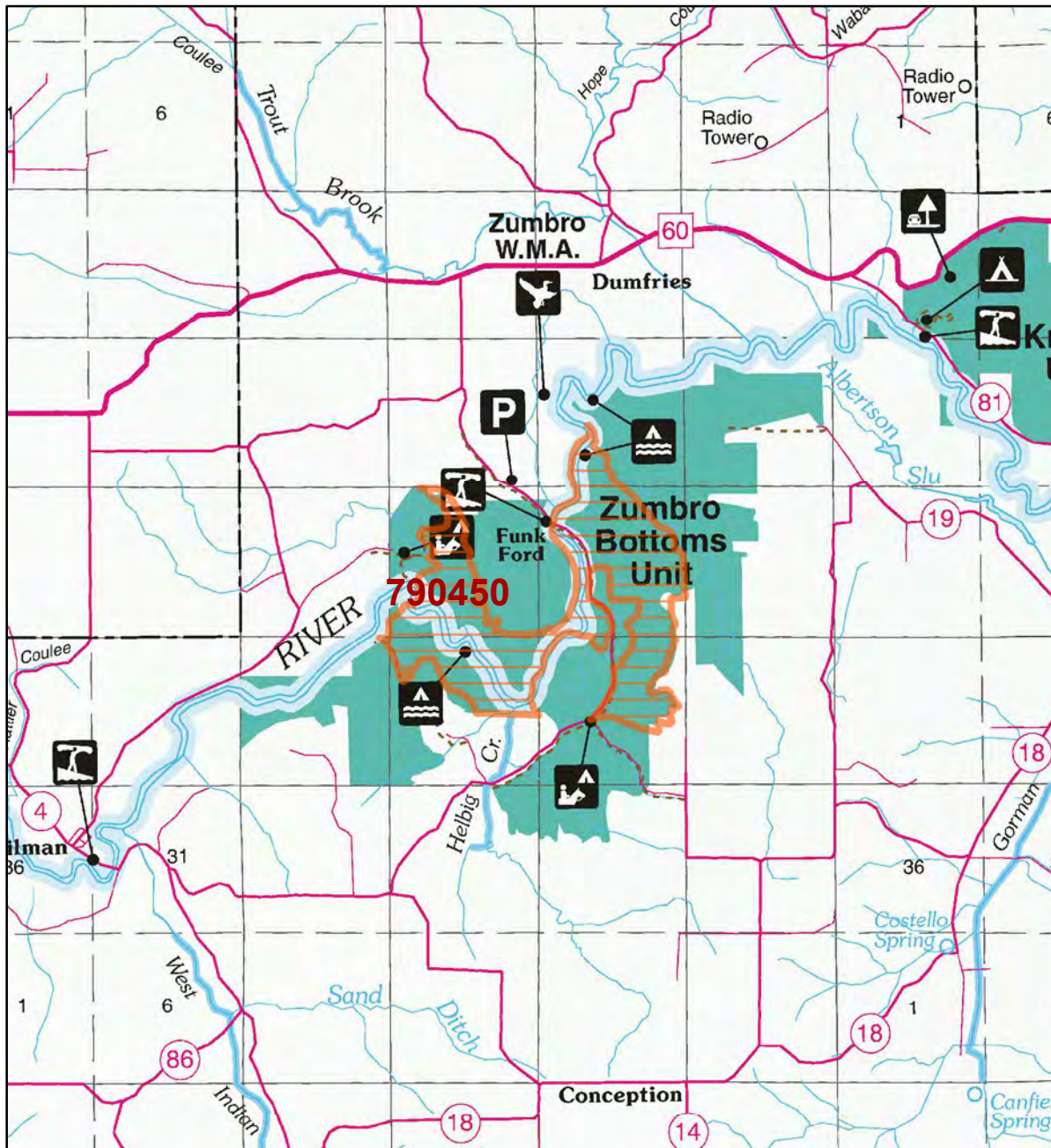
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





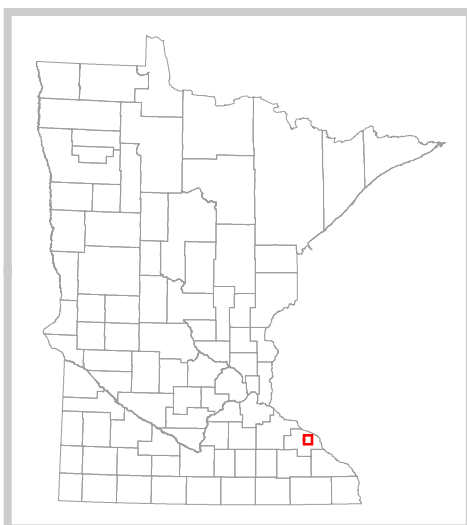
# HCVF Site 790450

## Zumbro Bottoms, Wabasha County



### LEGEND

- HCVF Sites
- 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**
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  - Travel Information Center
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  - Rest Area (limited facilities)
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  - 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



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 4 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 #: 790450**

**HCVF Name:** Zumbro Bottoms

**Acres of HCVF site:** 1032.83

**County:** Wabasha

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Zumbro Bottoms Unit

## HCVF Summary

This site contains steep bluffs above the Zumbro River. There are nine bluff prairies on s to w-facing slopes, small to mid-sized, A to C rank on sandstone outcrops. Dry oak forest occurs on sandy terraces, oak woodland/brushland on steep w-facing slopes, mature mesic oak forest on e-facing bluffs, and mature floodplain forest along the river (B to C rank).

### 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): timber rattlesnake (*Crotalus horridus*), wood turtle (*Glyptemys insulpta*), kitten-tails (*Besseyia bullii*); HCV1e (Rare species concentration): timber rattlesnake (*Crotalus horridus*), wood turtle (*Glyptemys insulpta*), kitten-tails (*Besseyia bullii*), cerulean warbler (*Setophaga cerulea*), red-shouldered hawk, Acadian flycatcher, cliff goldenrod (*Solidago sciaphila*), goat's-rue (*Tephrosia virginiana*), other SGCN bird species; HCV2-EBFa (intact forest block): yes; HCV3b (S1 or S2 plant community): UPs13b [3 records: C rank in 1996, BC rank in 1994, BC rank in 1994], UPs14b [C rank, 1994]; HCV3c (Special S3 plant community): FDs38a [BC rank, 1993], UPs13c [2 records: A rank in 1994, BC rank in 1994], FFs59a [2 records: B rank in 1996, BC in 1993], MHs37a [B rank, 1994].

## Management Considerations

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

Prescribed burning and/or shrub and some tree clearing will help maintain the prairies, savannas, and dry oak woodlands of this site. Non-game and plant ecologist specialist should be consulted to check on appropriate burn season and burn unit size. The MHs37 communities would benefit from some levels of surface prescribed burning and/or mid-story TSI (depending on site composition). Because of the rare bird species present, retaining larger patches of mature forest canopy in the landscape and large retention patches at the stand level will be important.

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

*No information entered.*

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

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about eight surrounding private landowners but a fair amount of the boundary is within the state forest unit. Much of the private land is managed agriculture, but coordinating with the landowners along the river will benefit the wood turtle population and any of the birds that depend on the river-forest transition. Those landowners that have forest land could be encouraged to keep their land in forest cover to maintain/enhance the bird populations that depend on it.

## General Comments

The HCVF site is much smaller than the MBS site. Only the highest quality areas were selected to be HCVF (lower quality areas within the High & Moderate boundary areas were removed or the higher quality areas were protected in Representative Sample Areas).

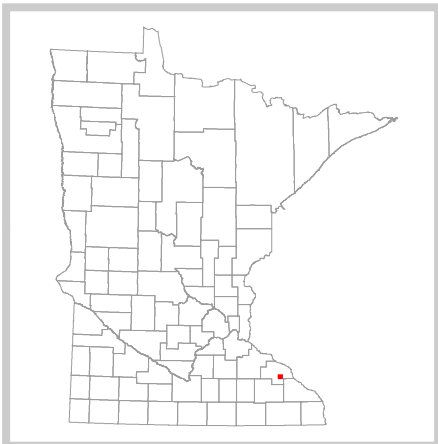
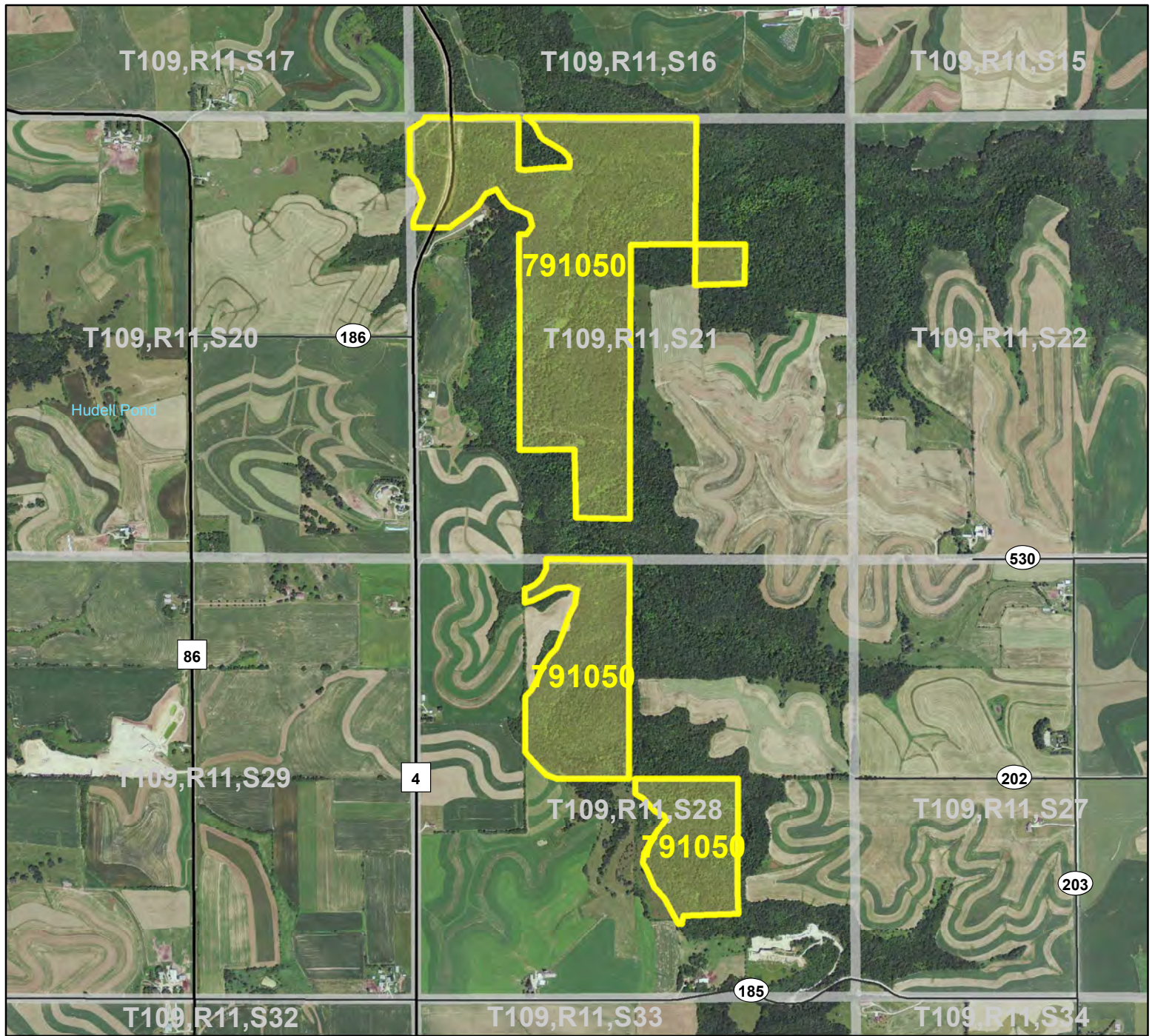
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...*



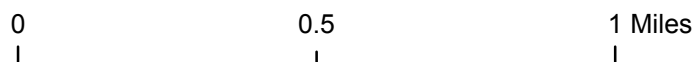
# HCVF Site 791050

## West Indian Creek, Wabasha County



**Legend**

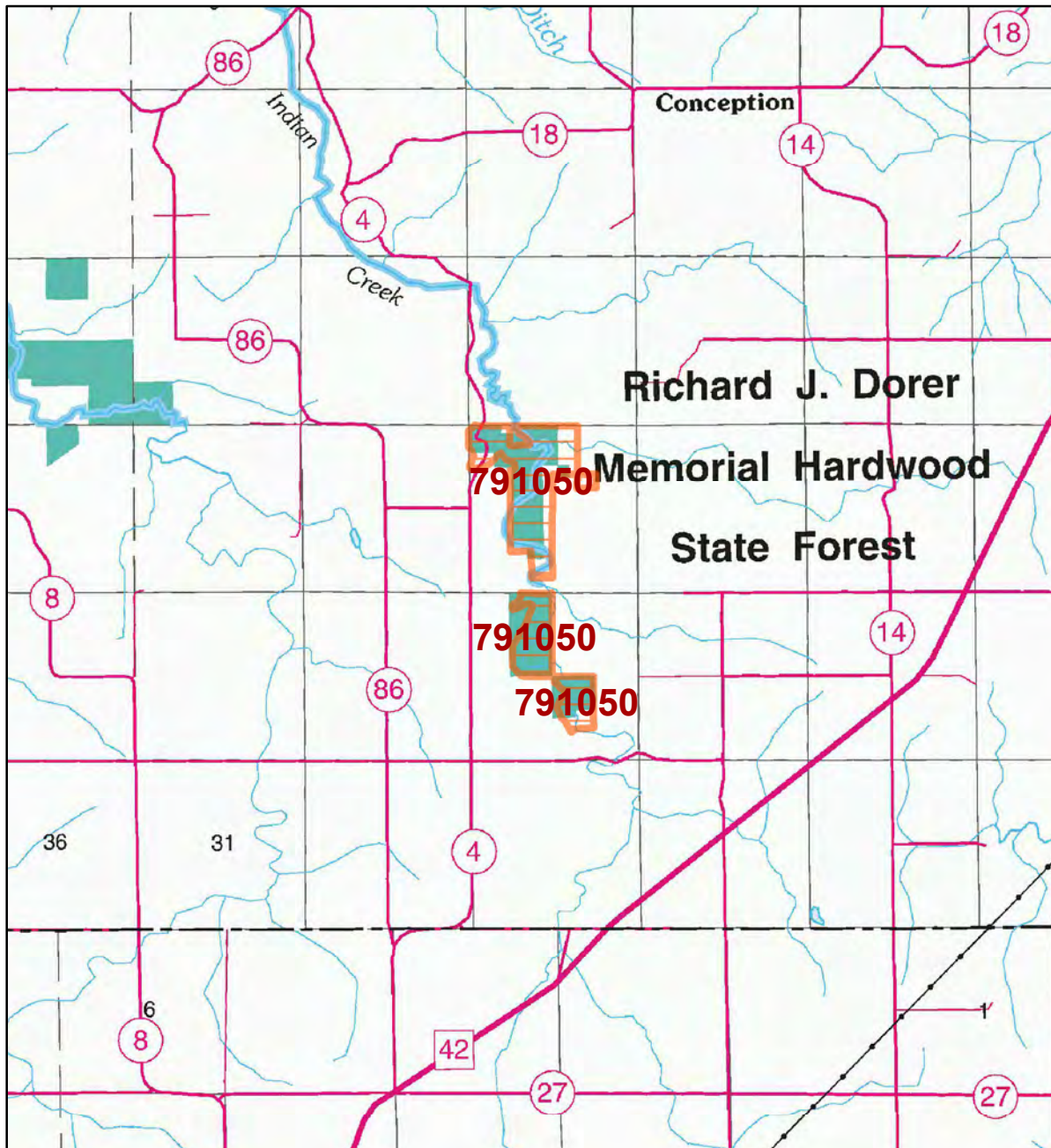
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





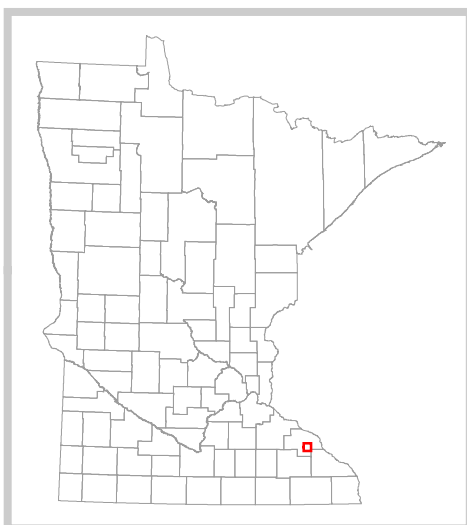
# HCVF Site 791050

## West Indian Creek, Wabasha County



### LEGEND

- HCVF Sites
- 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



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 1.75 3.5 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 #: 791050**

**HCVF Name:** West Indian Creek

**Acres of HCVF site:** 293.07

**County:** Wabasha

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Upper West Indian Creek Valley

## HCVF Summary

Extensive slopes and bottomland along three miles of West Indian Creek. Slopes with high-quality maple-basswood & oak forests, valley floor with high-quality lowland hardwoods & rare seepage native plant communities. Moist & dry cliffs. Kruger cave bat hibernacula. The most diverse & intact stretch of valley in the county. An abundance of rare species. Acadian flycatcher & Louisiana waterthrush.

**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): Six vascular plant species. HCV1e (Rare species concentration): 20 SGCN species, Rare plants, Acadian flycatcher, Louisiana waterthrush. HCV2-EBFb (old forest): yes. HCV3b (S1 or S2 plant community): CTs46a2, MHs39a. HCV3c (Special S3 plant community): MHs38a, MHs39b, MHs49. HCV3e (Old-growth forest): - stand 12 LH63 (33 acres), stand 11 O55 (56 acres), stand 7 CH62 (31 acres).

## Management Considerations

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

Old growth to be managed with no harvest. Other areas should have minimal canopy openings for forest interior bird habitat and rare plant species habitat. Invasive species control throughout where necessary.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Private landowners
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## General Comments

This is a "High Biodiversity Site" identified by the Blufflands SFRMP
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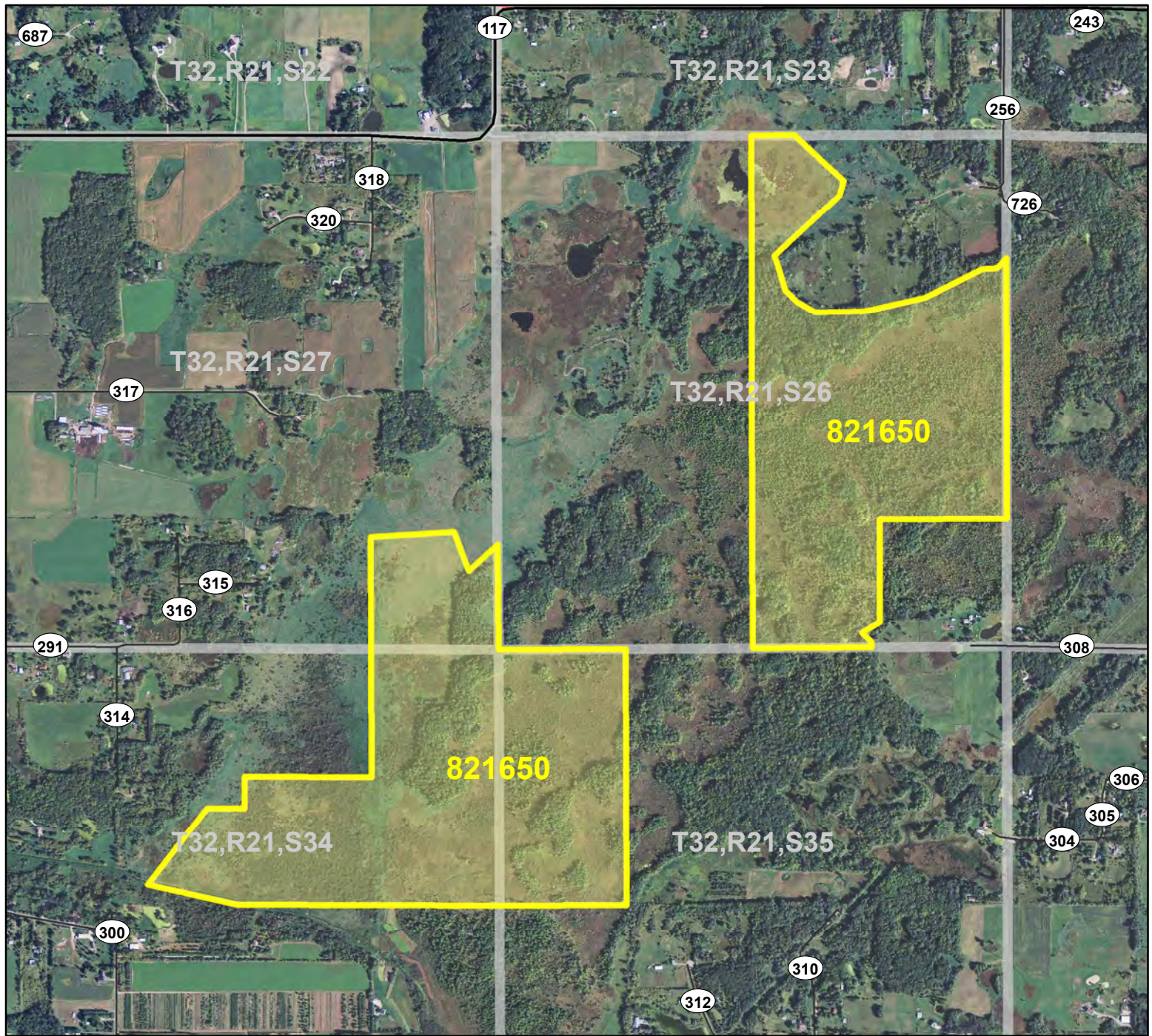
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...



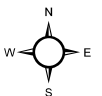
# HCVF Site 821650

## Hardwood Creek WMA, Washington County



### Legend

- County Highways
- Municipal, Township or Other Roads
- Ramps
- HCVF Sites
- PLS Sections

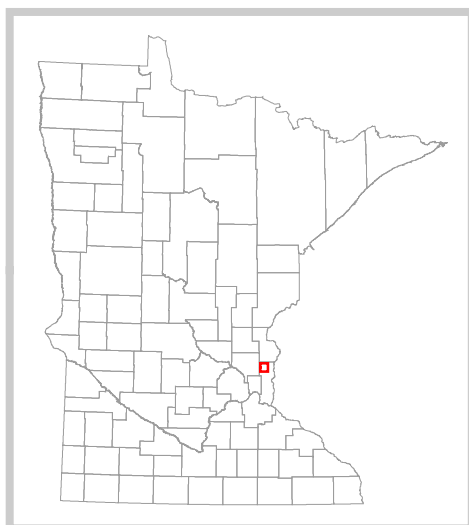
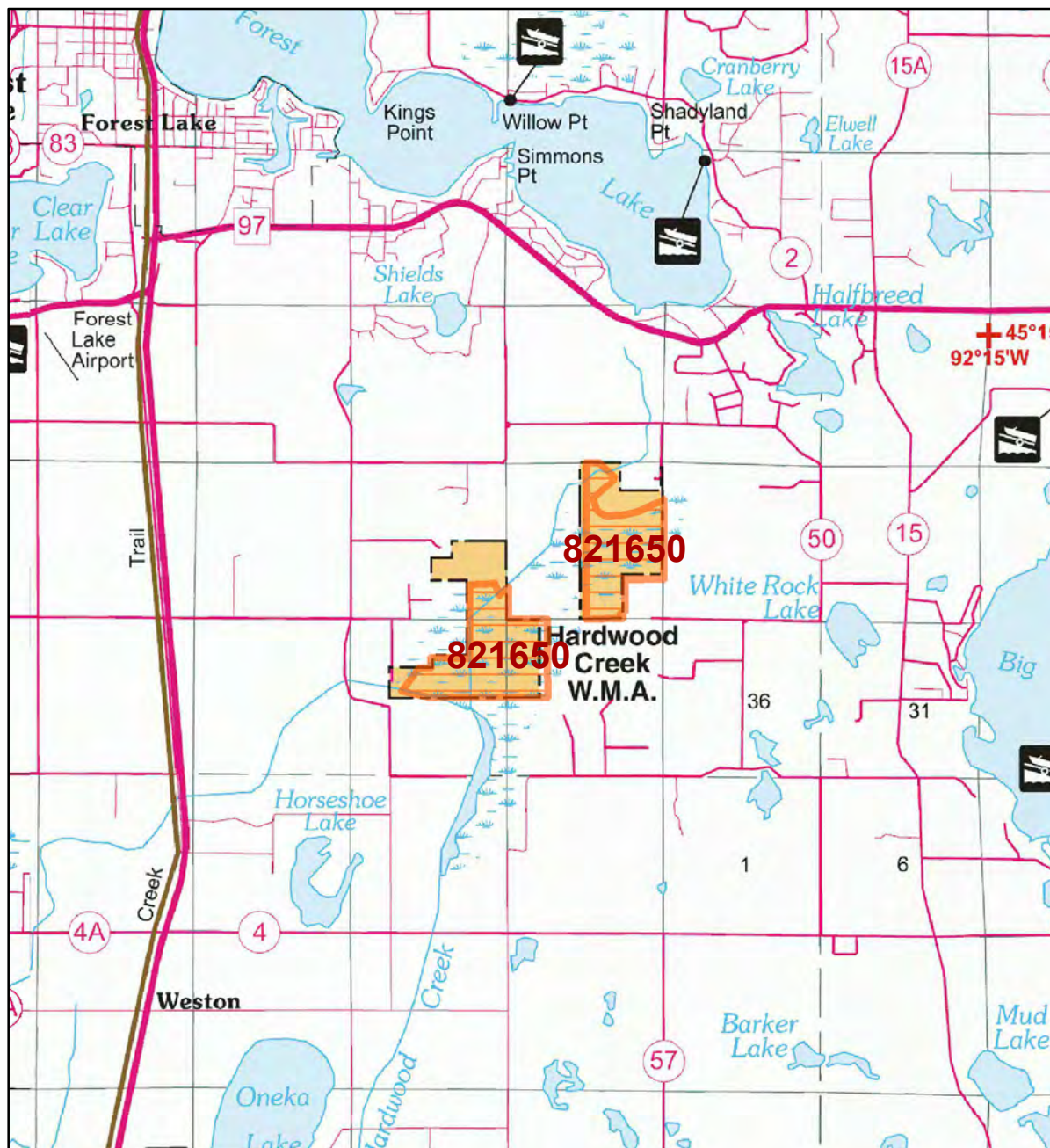


0 0.45 0.9 Miles





## Hardwood Creek WMA, Washington County



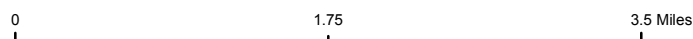
The PRIM series was developed using funds provided through the Legislative Commission on Minnesota Resources (LCMR).

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.



NOTE: Some of the features defined in this script explicitly may not exist on



*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 #:** 821650

**HCVF Name:** Hardwood Creek WMA

**Acres of HCVF site:** 442.93

**County:** Washington

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Hardwood Creek WMA

## HCVF Summary

This site contains a large wetland complex within a NE/SW-trending glacial meltwater channel, now filled with outwash. Minerotrophic sedge peats have accumulated. Vegetation is a mosaic of conifer swamp (FPs63a), shrub swamp (WMn82a), wet meadow (OPn92), and maple-basswood forest (MHs38c), which is the best maple-basswood forest in the county.

### **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.*

HCV1e (Rare species concentration): vascular plant species; HCV3a (G1 or G2 plant community): FPs63a [A rank, 1987]; HCV3b (S1 or S2 plant community): FPs63a [A rank, 1987], MRn83 [no rank]; HCV3c (Special S3 plant community): MHs38c [A rank, 1987].

## Management Considerations

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

It will be important to maintain the hydrology of the wetland sites, especially FHs63a that depends on groundwater flow to maintain its peat soils. Retaining older forest canopy in the small amount of upland maple-basswood forest present on site would maintain this HCV and uneven aged management would be appropriate. Invasive species management may be necessary in both the uplands and lowlands.

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

*No information entered.*

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

**\_Yes\_**

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about 20 landowners that surround the HCVF site, some of which appear to have natural vegetation. These landowners would be good targets for management coordination to enhance any and all HCVs. Most of the HCVs are rare native plant communities, which all extend to and are mapped on private land.

## General Comments

The HCVF site is smaller than the MBS site because wthe HCVF site includes only state land only.

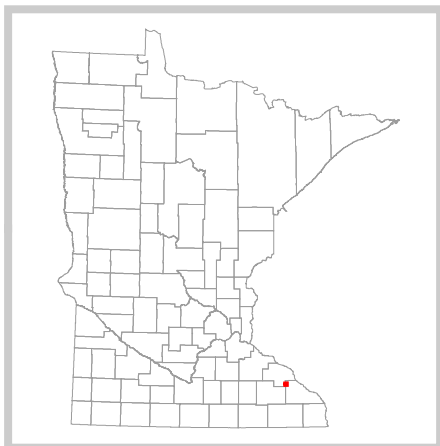
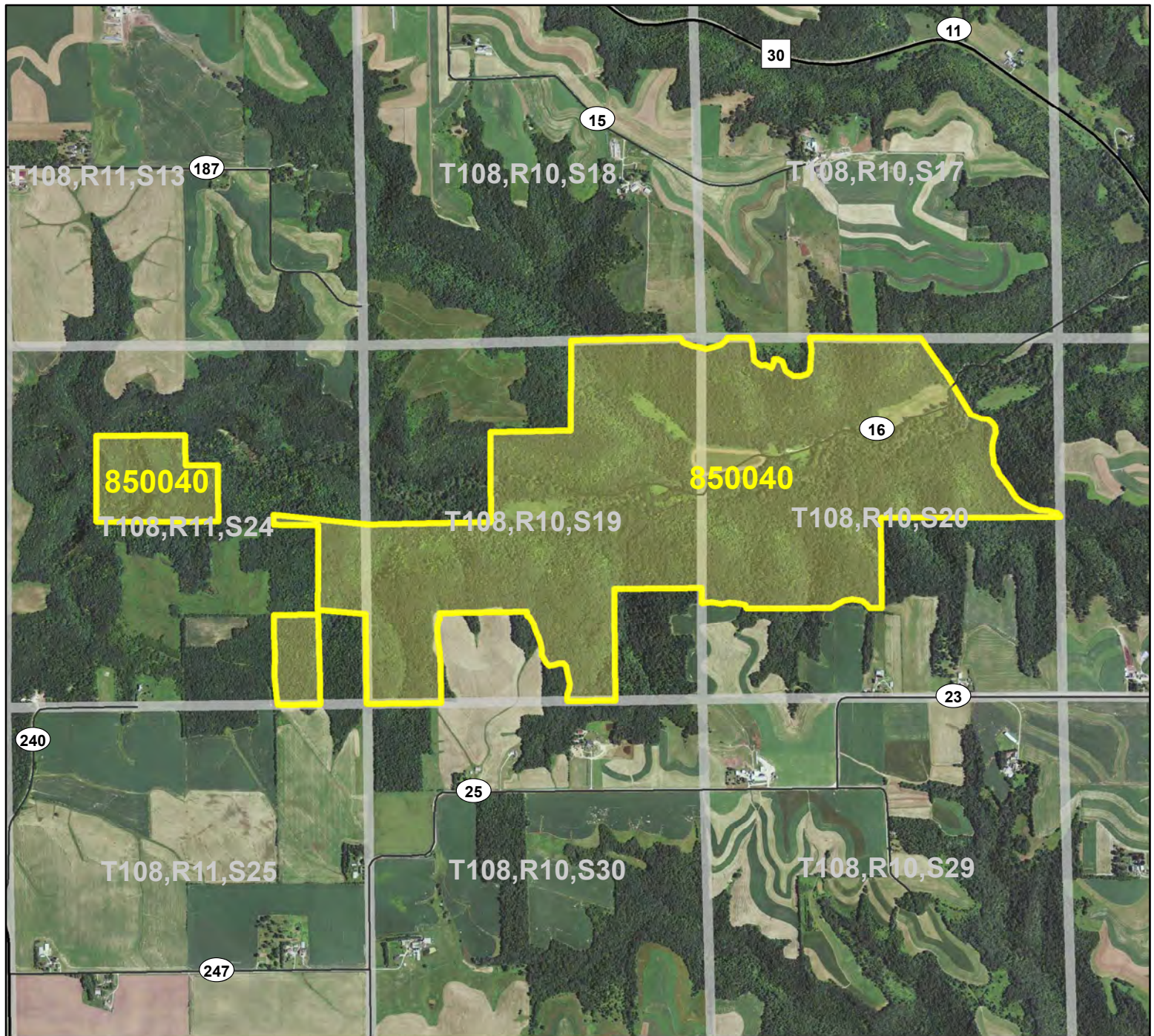
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...*



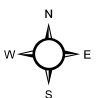
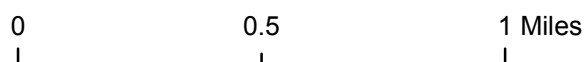
# HCVF Site 850040

## Upper Beaver Creek Valley, Winona County



**Legend**

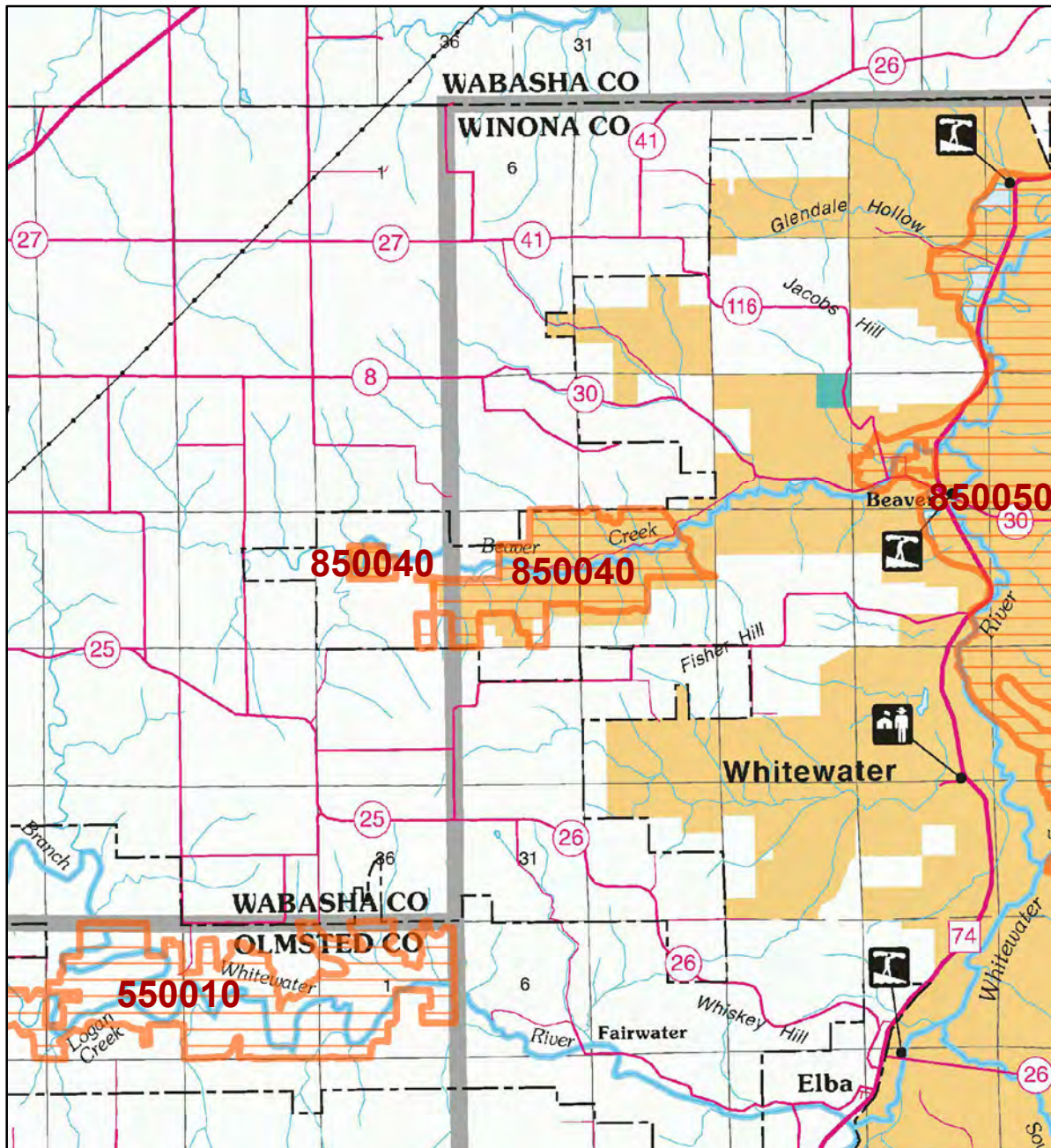
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 850040

## Upper Beaver Creek Valley, Winona County



### LEGEND

- HCVF Sites
- 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**
  - DNR D.N.R. Office
  - I Travel Information Center
  - A Rest Area (with facilities)
  - A Rest Area (limited facilities)
  - C Campground
  - W Watercraft Camping
  - E Equestrian Camping
  - W Water Access
  - C Carry-in Access
  - D Dam (on designated canoe route)
  - F Fishing Pier
  - O Overlook
  - P Parking
  - H Historic Site
  - G Geologic Feature
  - F Fish Hatchery
  - N Forestry Nursery
  - N National Great River Road
  - S State Great River Road

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 4 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 #: 850040**

**HCVF Name:** Upper Beaver Creek Valley

**Acres of HCVF site:** 751.92

**County:** Winona

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Upper Beaver Creek Valley (Whitewater WMA)

## HCVF Summary

Scenic steep slopes & valleys along upper reaches of Beaver Creek in the Whitewater WMA. The west portion includes a significant large tract of quality forest, with portions mature. N- to e-facing slopes support Mesic Hardwood Forest (MHs37a, MHs38a, MHs39b) and the rare White pine-Sugar Maple-basswood Forest (Cold Slope) (MHc38a). Also present are small tracts of White Pine Forest, a high- quality Algific Talus Slope, and Black Ash-Sugar Maple-Basswood-(Blue Beech) Seepage Swamp (WFs57b). Drier s- to w-facing slopes support Oak-Shagbark Hickory Woodland (FDs38a) and small Bedrock Bluff Prairies (UPs13c). Elm-Basswood-Black Ash-(Blue Beech) Forest (MHs49a) occurs along Beaver Creek. Significant rare animals a reptile/amphians species, the only known woodland voles in the county, and three species of rare forest interior birds: Louisiana waterthrush, red-shouldered hawks, and cerulean warblers. Twelve rare plant species occur in forests in this site, and three additional rare plants known to exist in adjacent forest may exist within the site.

### **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): smooth-sheathed sedge (*Carex laevivaginata*), Christmas fern (*Polystichum acrostichoides*), Carey's sedge (*Carex careyana*), false mermaid (*Floerkea proserpinacoides*), one reptile/amphibian species. [Also several species on private land adjacent and possibly in the WMA: James' sedge (*Carex jamesii*), narrow-leaved spleenwort (*Diplasium pycnocarpon*), spreading sedge (*Carex laxiculmis*)]. HCV1e (Rare species concentration): 12 SGCN species. HCV1f (Taxonomic group concentration): many rare plant species, woodland voles, reptile/amphibian. HCV2-EBFa (intact forest block): yes. HCV2-EBFb (old forest): yes. HCV3a (G1 or G2 plant community): MHc38a. HCV3b (S1 or S2 plant community): algific talus, dolomite subtype (CTs46a2), White Pine-Sugar Maple-Basswood Forest (Cold Slope) (MHc38a), Elm-Basswood-Black Ash-(Blue Beech) Forest (MHs49b), Black Ash-Sugar Maple-Basswood-(Blue Beech) Seepage Swamp (WFs57b).

## Management Considerations

### Overall management objectives for the entire HCVF:

Bedrock bluff prairies need clearing and prescribed burning; burning would also benefit FDs38a forest. Timber harvest in mesic hardwood forest should be minimal and should ensure adequate canopy cover for forest interior birds and woodland voles, as well as shade-requiring rare plants. Avoid introducing invasive species and disturbing diverse forest ground layers, including rare plants.

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

High Biodiversity Site Plan

### Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)?

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

Site is broken up into portions divided by private ownership. These landowners are essential partners in conserving rare plant communities and species.

## General Comments

This is a "High Biodiversity Site" identified by the Blufflands SFRMP

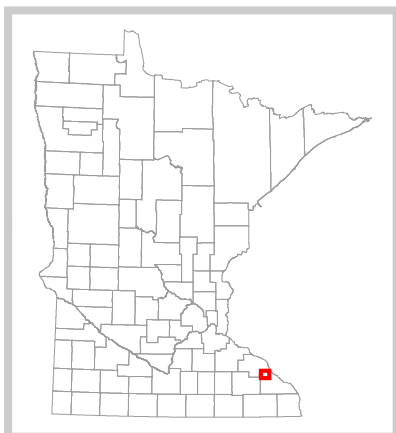
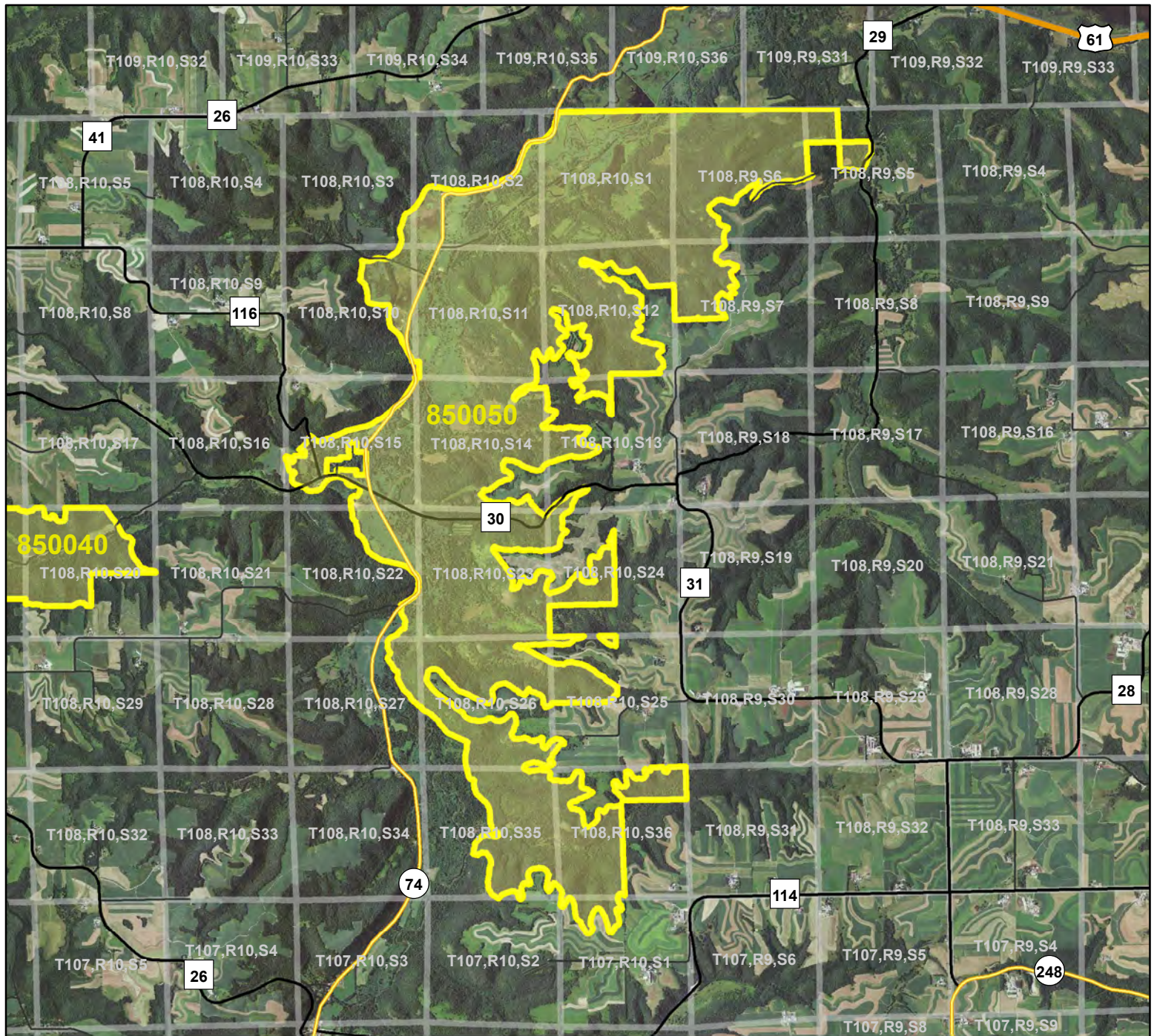
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... Report End ...



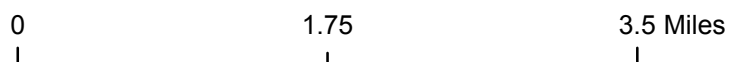
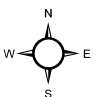
# HCVF Site 850050

## Whitewater Sand Savannas, Winona County



### Legend

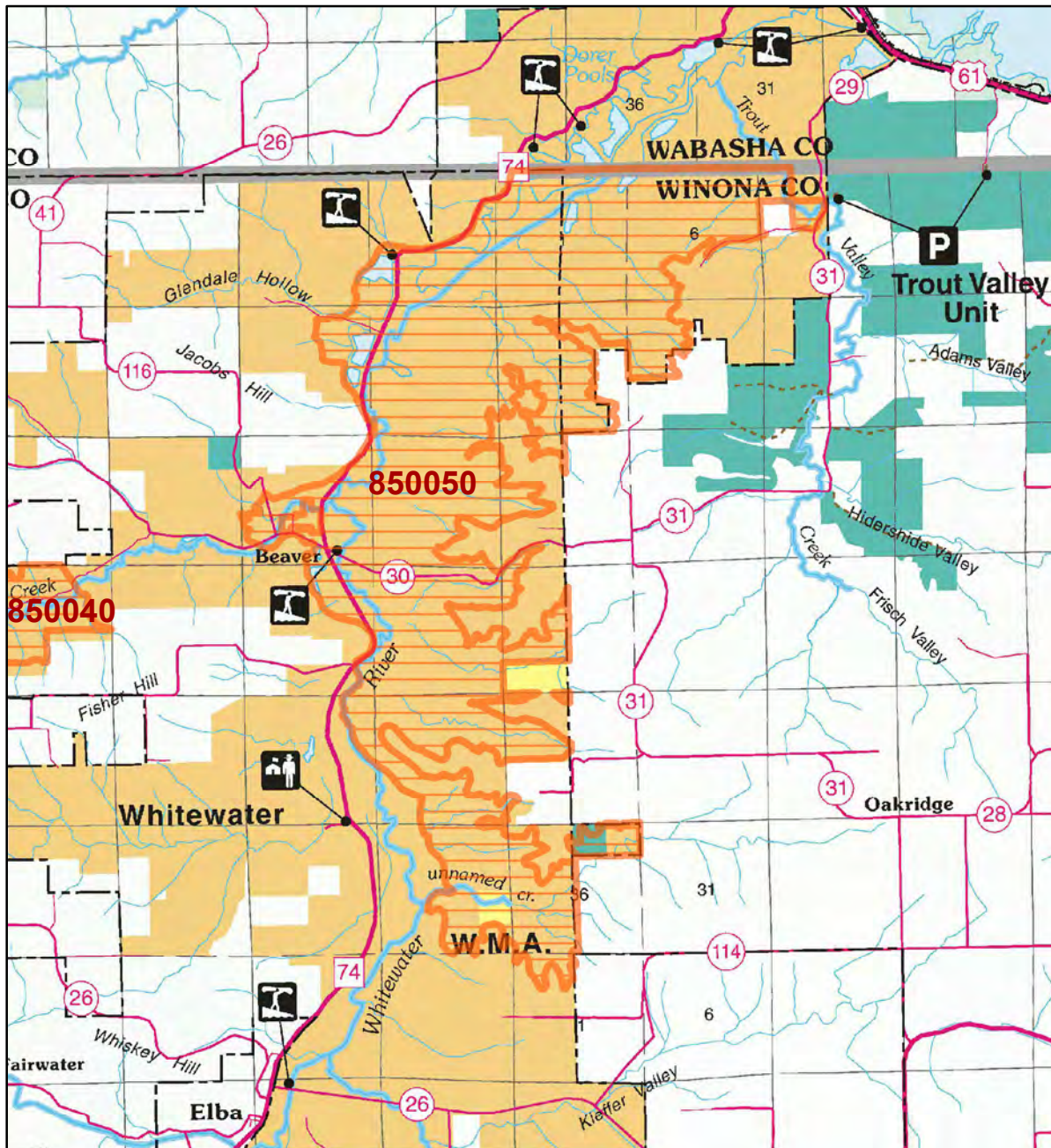
- Federal Trunk Highways
- State Trunk Highways
- County Highways
- Municipal, Township or Other Roads
- Ramps
- HCVF Sites
- PLS Sections





# HCVF Site 850050

## Whitewater Sand Savannas, Winona County



### LEGEND

HCVF Sites

### 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

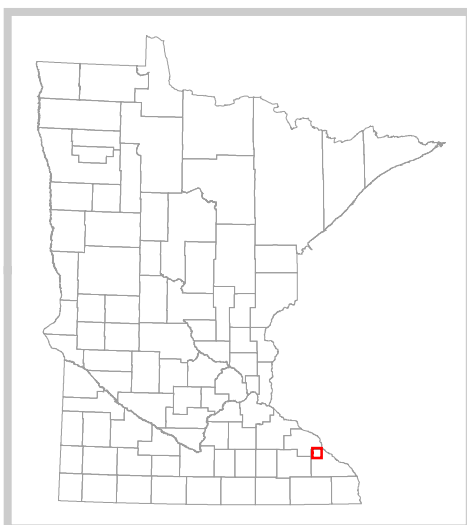
#### DESIGNATED WATERWAYS

- 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

HCVF: Some of the features shown in this map are not shown on the original 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 2.25 4.5 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 #: 850050**

**HCVF Name:** Whitewater Sand Savannas

**Acres of HCVF site:** 5856.31

**County:** Winona

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-08-01

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Whitewater Sand Savannas Area (Whitewater WMA)

## HCVF Summary

Bluffs and valleys east of the Whitewater River and floodplain along the river. Large, very significant site. Valleys with Plainfield Sand support dry oak savanna, dry jack pine savanna, Karner blue butterflies, rare reptiles/amphibians, many rare plants. Large high quality bedrock bluff prairies with rare plants, as well as mesic prairies and dry barrens prairies. Portions of n-facing steep slopes with high-quality mature oak forest. Thirteen rare plant species and 18 rare animal species. This site together with other savanna in Whitewater WMA have only population of Karner blue butterflies in the state.

### 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 (S or S2 species): two reptile/amphian species, Karner blue, Persius dusky wing, ottoe skipper, Rough-seeded fameflower (*Phemeranthus rugospermus*), valerian (*Valeriana edulis* var. *ciliata*), one-flowered broomrape (*Orobancha uniflora*), beach heather (*Hudsonia tomentosa*), sea-beach needle grass (*Aristida tuberculosa*), clasping milkweed (*Asclepias ampexicaulis*). HCV1c (Federal T or E species): Karner blue. HCV1e (rare species concentration): Plants, lepidoptera, birds, herps, jumping spiders, prairie voles, 16 SGCN species. HCV1g (Exemplifies of Outstanding Key Habitats): Oak savanna. HCV2a -EBF (intact forest block): yes. HCV2b - EBF (old forest): yes. HCV2c - EBF (forest block in ag. landscape): yes. HCV3a (G1 or G2 plant community): FDs27c, UPs14a1, UPs14a2, UPs13a, UPs23a. HCV3b (S1 or S2 plant community): FDs27b, FDs27c, UPs14a1, UPs14a2, UPs13a, UPs23a. HCV3c (Special S3 plant community): FDs38a, MHs37a, UPs13c, FDs38a, UPs13c. HCV3d (Natural origin pine stand): jack pine.

## Management Considerations

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

All upland plant communities are fire-dependent, so use of prescribed fire is important component. Fire intensity, seasonality, & frequency need to incorporate rare animal concerns, especially invertebrates and reptiles/amphibians. Timber harvest should be done with care to avoid invasive species increases & to maintain native plant community types. Floodplain habitat is degraded, often dominated by reed canary grass and could use restoration to native plant communities, including floodplain forest, sedge meadows, and possibly others such as seepage meadows. Some floodplain rare species (red-shouldered hawk, cerulean warbler) are forest species & would benefit from more floodplain forest cover. Others (gallinule, pickerel frogs, and reptiles/amphibians utilize sedge meadows and pools. Pickerel frogs and other reptiles and also use forests occasionally, & one species nests in sand prairie and savanna.

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

High Biodiversity Site Plan

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

## General Comments

This is a "High Biodiversity Site" identified by the Blufflands SFRMP. Site includes 3 Representative Sample Areas: Lupine Valley, Fabel Ravine, and Whitewater Sand Savannas.

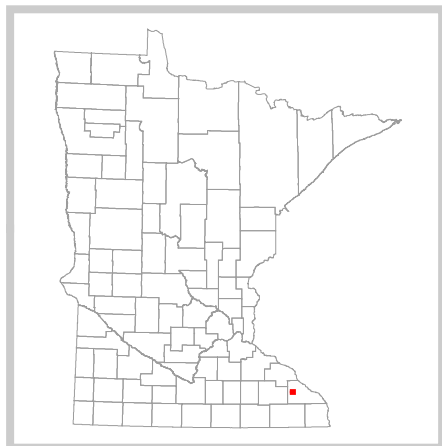
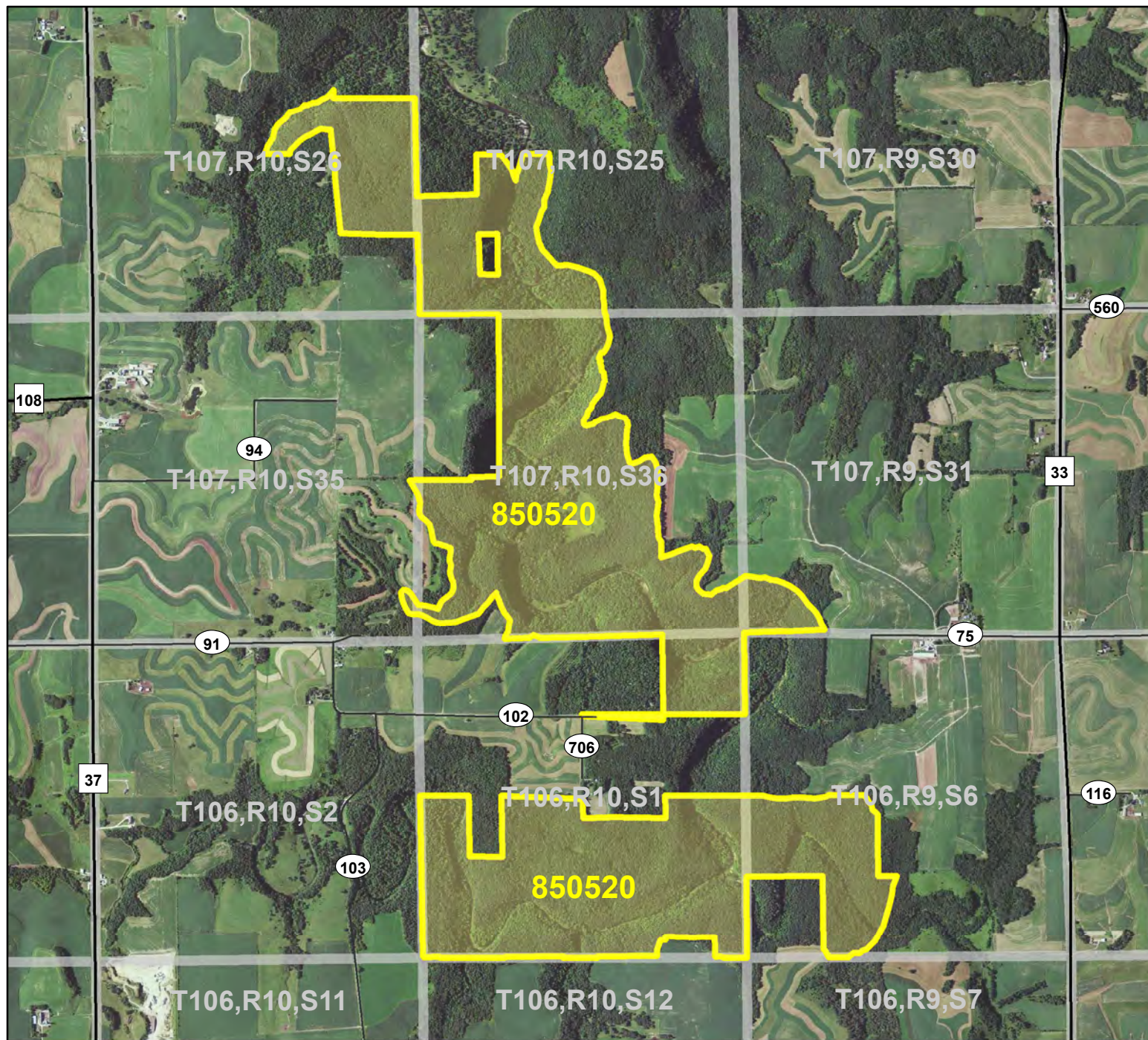
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*... Report End ...*



# HCVF Site 850520

## South Fork Whitewater WMA, Winona County



**Legend**

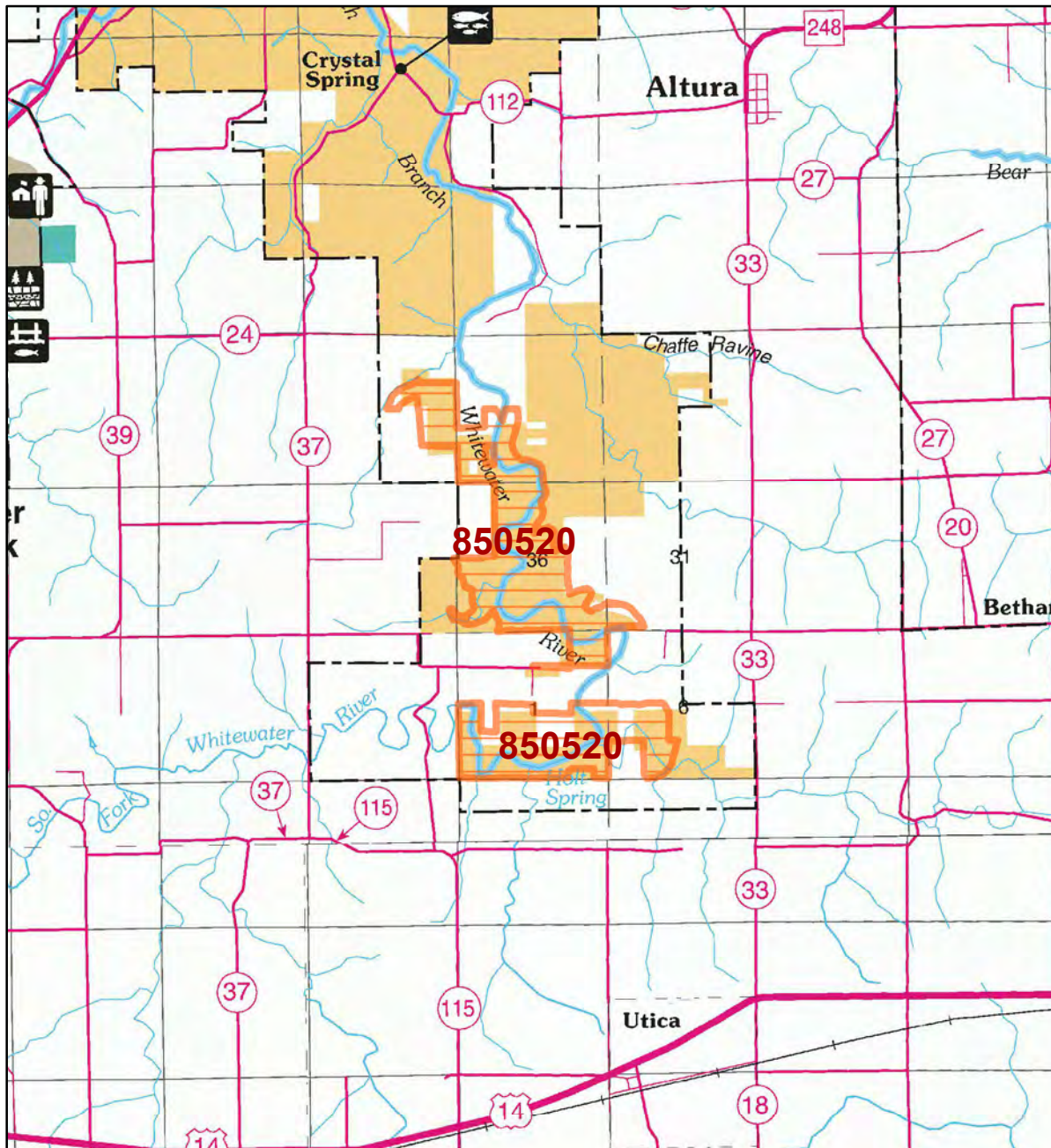
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





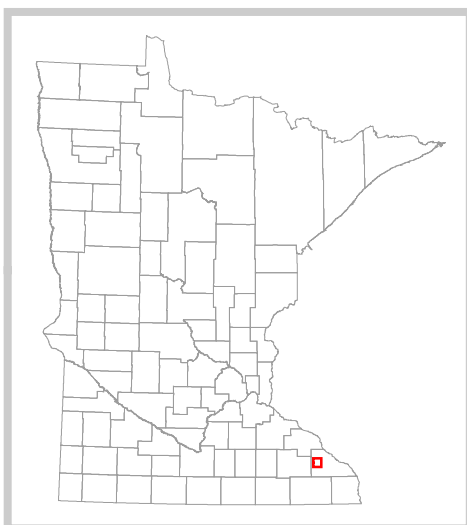
# HCVF Site 850520

## South Fork Whitewater WMA, Winona County



### LEGEND

- HCVF Sites
- 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



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 4 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 #: 850520**

**HCVF Name:** South Fork Whitewater WMA

**Acres of HCVF site:** 988.99

**County:** Winona

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** South Fork Whitewater River Area (Whitewater WMA)

## HCVF Summary

Steep bluffs & floodplain along the South Fork of the Whitewater River in the Whitewater WMA . Very significant site: large tracts old-growth to mature maple-basswood forest & white pine- hardwood forest; algific talus slopes & maderate cliffs with rare snails; unique black ash swamp; lowland hardwood forest; numerous rare plants & rare birds. Seven old-growth OG s totaling 334 acres. Louisiana waterthrush, Acadian flycatcher. 0.3 acres of rare White pine-Sugar Maple-basswood Forest (Cold Slope)( MHc38a).

### **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.*

HCV1a (G1 or G2 species): Bluff vertigo (*Vertigo meramecensis*). HCV1b (S1 or S2 species): Bluff vertigo (*Vertigo meramecensis*), a reptile/amphibian species, a vascular plant species, nodding wild onion (*Allium cernuum*), Short's aster (*Aster shortii*), narrow-leaved spleenwort (*Diplazium pycnocarpon*), smooth-sheathed sedge (*Carex laevivaginata*), spreading sedge (*Carex laxiculmis*), Carey's sedge (*Carex careyana*), James's sedge (*Carex jamesii*), blunt-lobed grapefern (*Botrychium oneidense*). HCV1e (Rare species concentration): 11 SGCN species, rare birds, rare plants of forested habitats. HCV1f (Taxonomic group concentration): rare snails. HCV1g (Outstanding Key Habitats Examples): cliffs and talus, wetland non-forest. HCV2-EBFa (intact forest block): yes. HCV2-EBFb (old forest): yes. HCV3a (G1 or G2 plant community): MHc38a. HCV3b (S1 or S2 plant community): CTs43a2, Cts46a2, MHc38a, MHs39a, MHs49b, WFs57a. HCV3c (Special S3 plant community): CTs33b, MHs38a, MHs39b, MHs49a. HCV3d (Natural origin pine stand): white pine. HCV3e (Old-growth forest): stand 581 NH63 (30 acres), stand 583 O73 (31 acres), stand 35 NH63 (25 acres).

## Management Considerations

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

For old-growth forest, primary concerns are invasive species (one important one is garlic mustard, which is becoming common in lowland hardwood forest) and trespass by OHVs. For other forests, management should ensure that adequate canopy cover for forest interior birds and rare plants is retained, and care taken not to disturb forest ground layers. Minimal canopy opening would help ensure the protection/maintenance of rare native plant communities and rare species.

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

High Biodiversity Site Plan

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

private landowners

## General Comments

This is a "High Biodiversity Site" identified by the Blufflands SFRMP

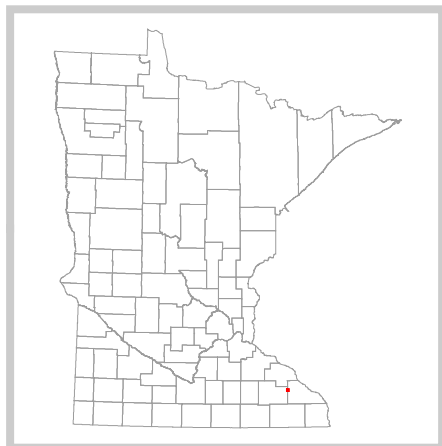
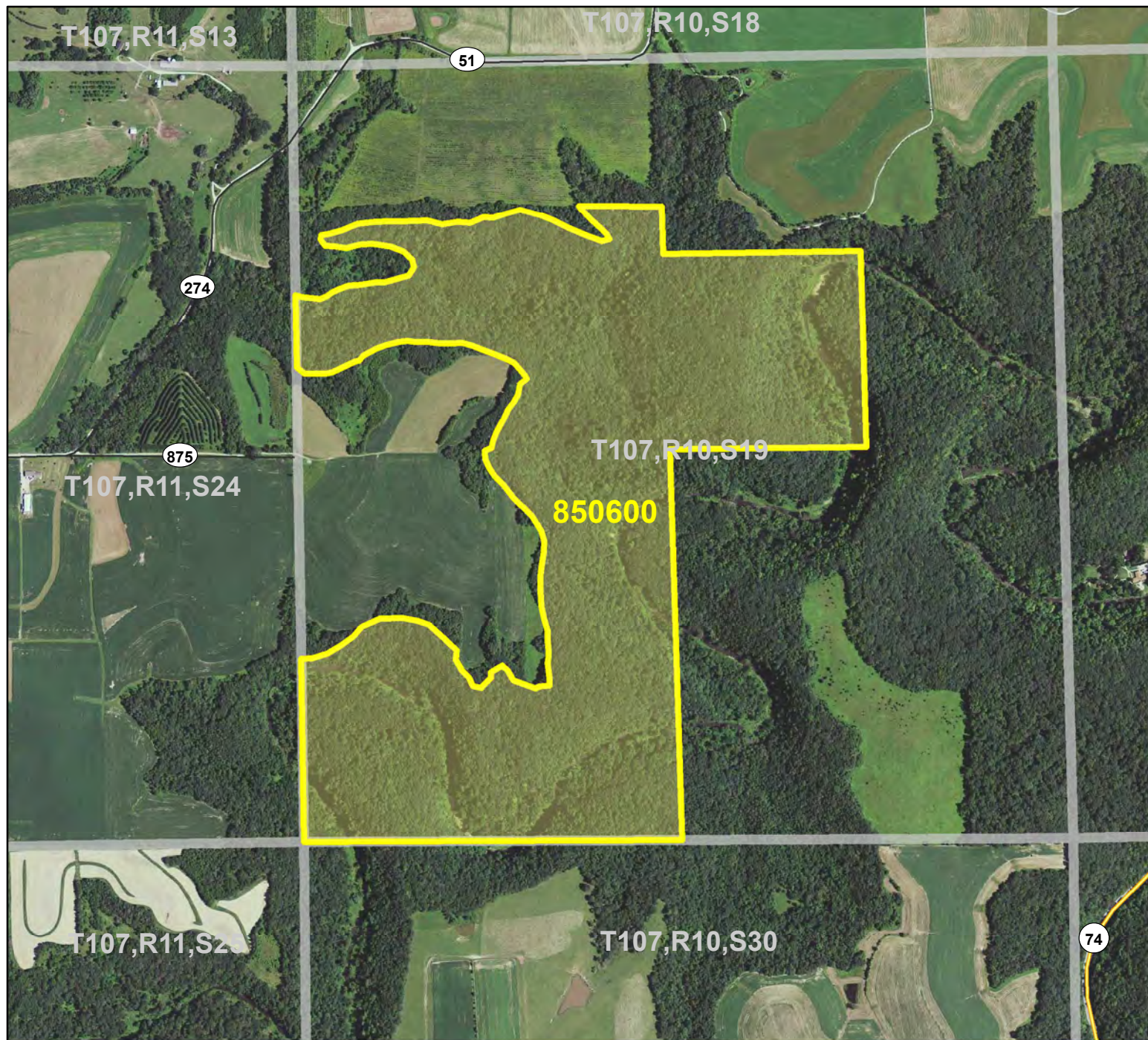
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...



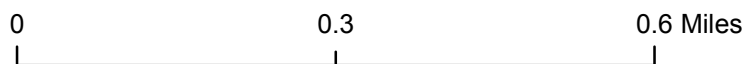
# HCVF Site 850600

## Callahan Unit--WWWMA, Winona County



**Legend**

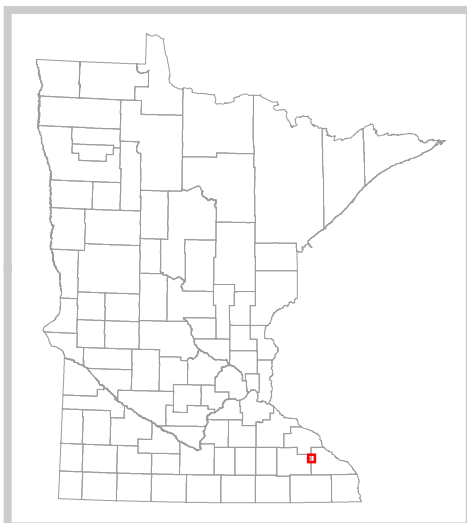
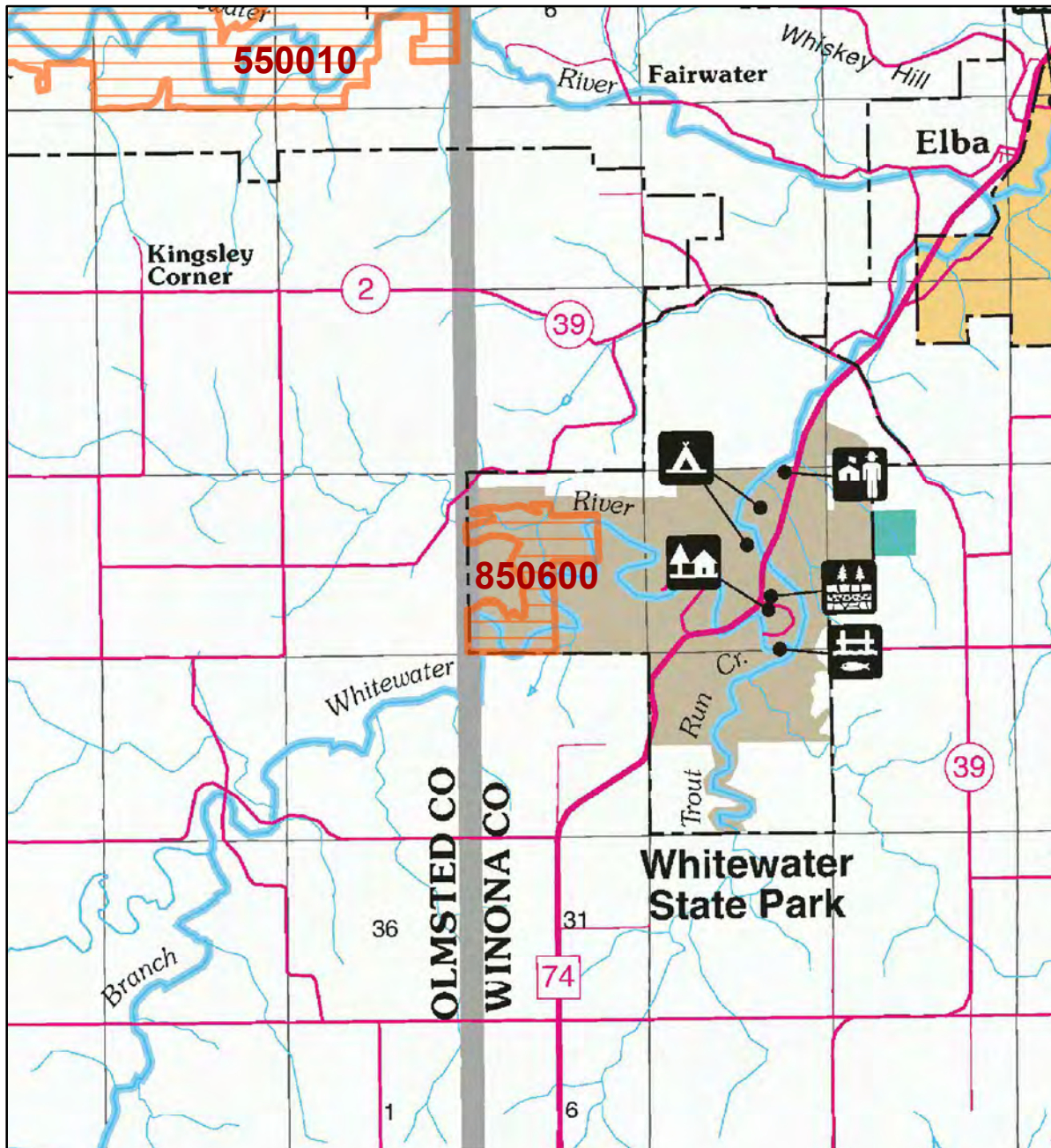
- State Trunk Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections





# HCVF Site 850600

## Callahan Unit--WWWMA, Winona County



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 1.5 3 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 #: 850600**

**HCVF Name:** Callahan Unit--WWWMA

**Acres of HCVF site:** 203.72

**County:** Winona

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FAW

**Management Unit Name(s) (if applicable):** Callahan Unit--Whitewater WMA

## HCVF Summary

This site contains steep bluffs along the Middle Fork of the Whitewater River. It's a very significant site including algific talus slopes, magnificent cliffs, hardwood-white pine forest, oak forest, and lowland hardwood forest. The portions of mature forest are excellent quality. This site is adjacent to Whitewater State Park but is part of the Whitewater WMA.

### **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.*

S1 and S2 species: one reptile/amphibian species, upland boneset (*Eupatorium sessilifolium*); HCV1e (Rare species concentration): reptile/amphibian species, upland boneset (*Eupatorium sessilifolium*), Louisiana waterthrush, cerulean warbler, cliff goldenrod (*Solidago sciaphila*), vascular plant species; HCV3b (S1 or S2 plant community): CTs46a2 [3 records: 2 records D rank in 1989 and 1 record not ranked in 1989]; HCV3c (Special S3 plant community): MHs49a [B rank, 1992], MHs38a [2 records: AB rank in 1992 and not ranked in 1992], MHs38c [AB rank, 1992]; HCV3e (Old-growth forest): stand 359 O63 (the vast majority of this stand is located within the state park)

## Management Considerations

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

Maintain mature forest canopy of the site, especially for the rare birds that are dependent on it. Uneven aged management or patch harvesting in the mesic hardwood communities. Manage invasive species throughout the site.

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

**recommendations:**

*No information entered.*

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

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

There are about seven private parcels abutting the site on the north, west, and south side. Whitewater State Park is adjacent to the east. Much of the private land is managed for agriculture, but the stream has a forested buffer, so coordination could help maintain the habitat there. Maintaining the HCVs at this site should include coordinating with the State Park (which likely is already happening) where many HCVs extend and occur.

## General Comments

The HCVF site is smaller than the MBS site because we contained the HCVF boundary to certified state land only.

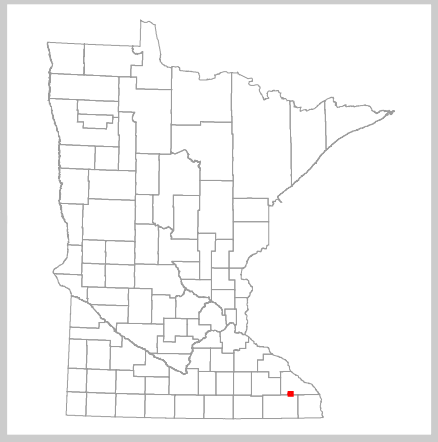
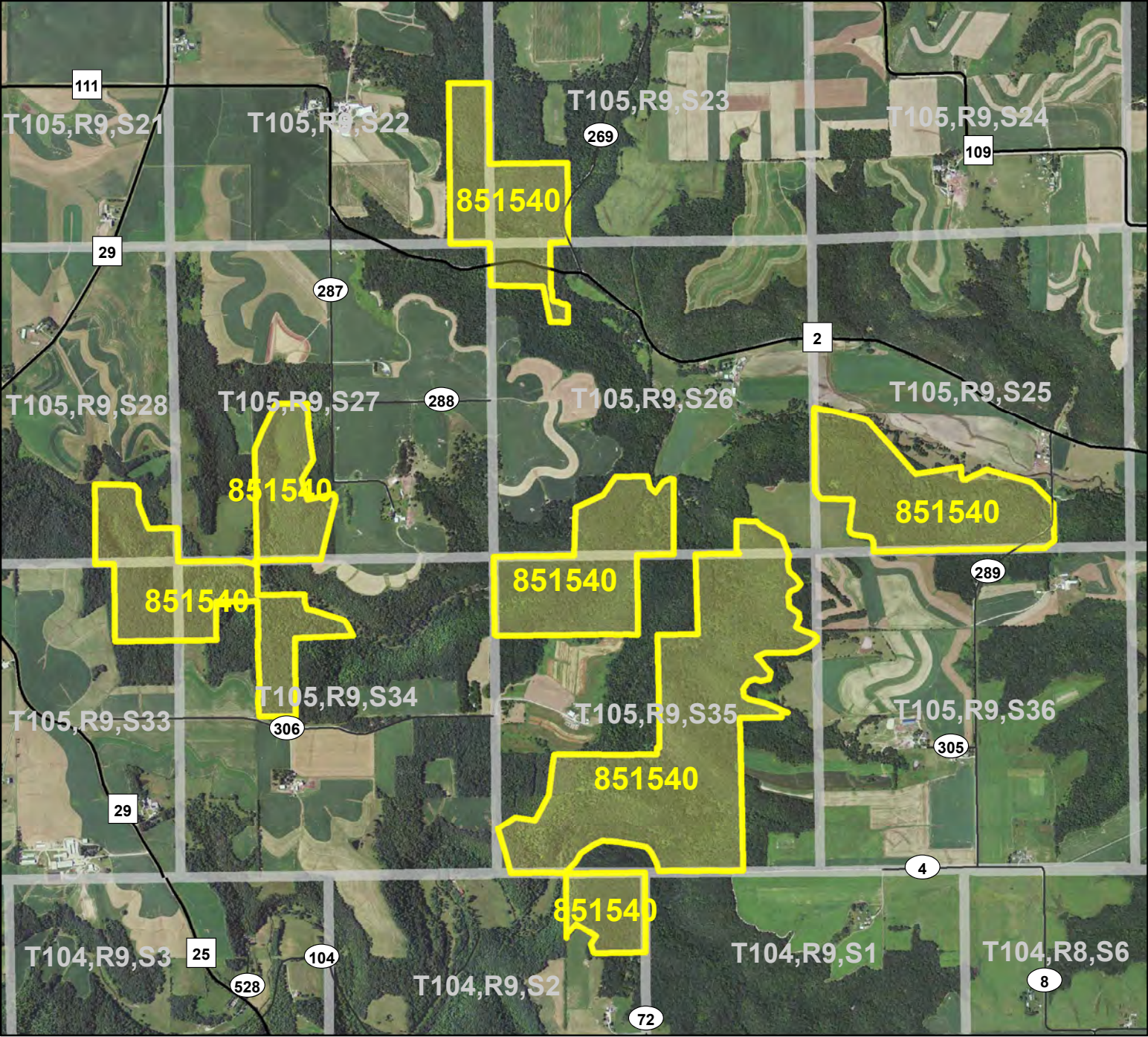
*Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually 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 ...



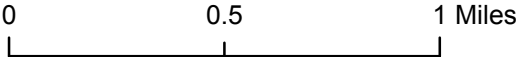
# HCVF Site 851540

## Pine Hemingway Creek, Winona County



**Legend**

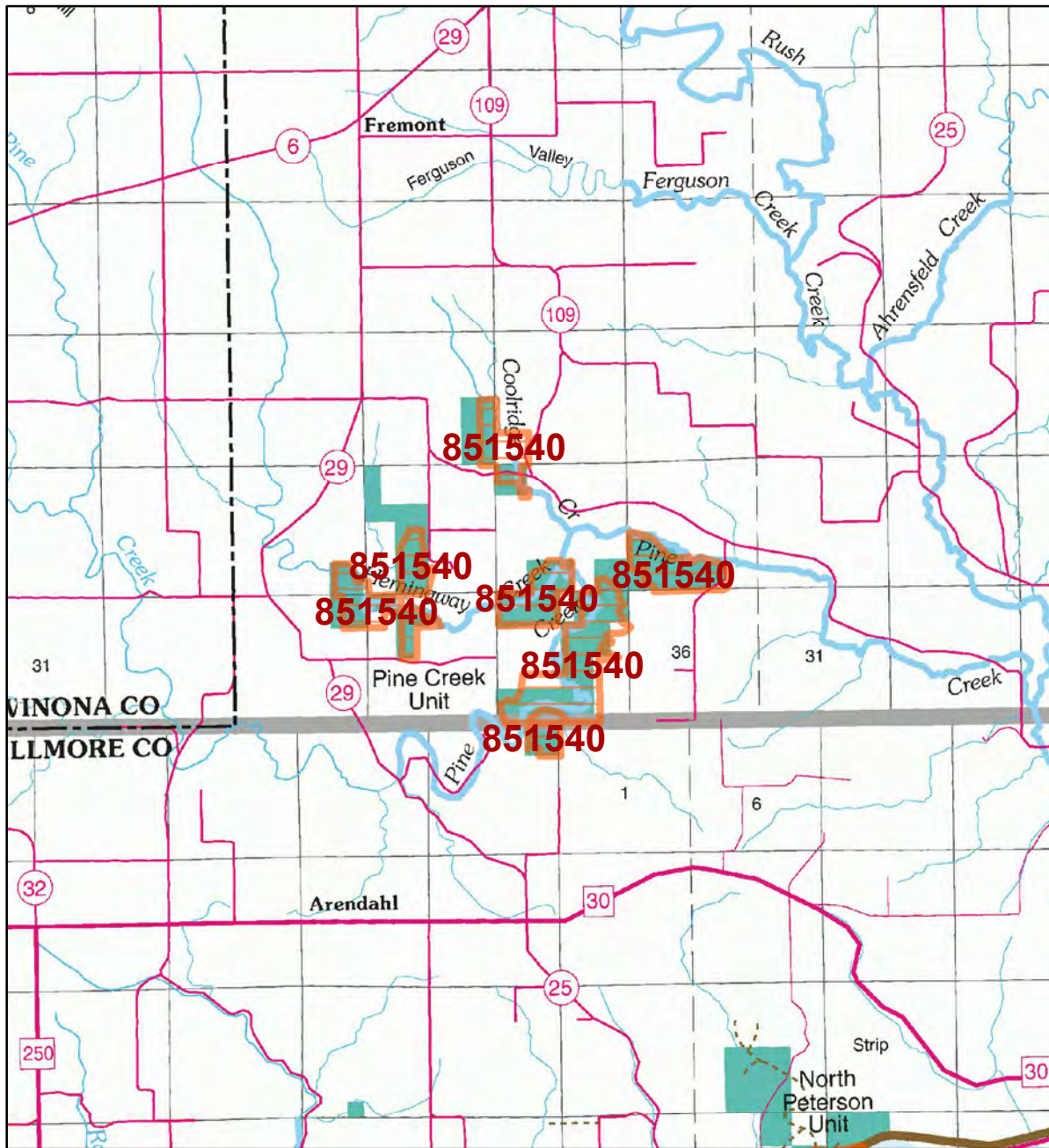
- County Highways
- Municipal, Township or Other Roads
- HCVF Sites
- PLS Sections



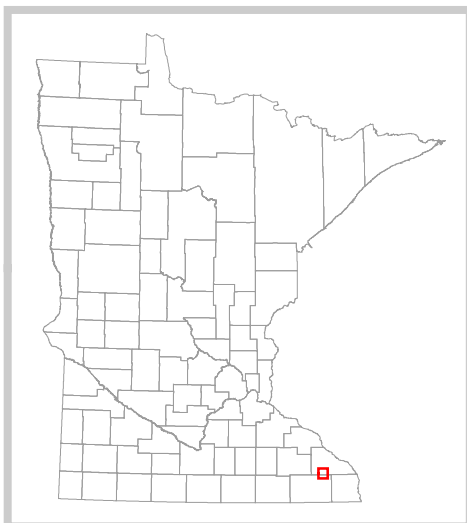


# HCVF Site 851540

## Pine Hemingway Creek, Winona County



- LEGEND**
- HCVF Sites**
- 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



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 2.25 4.5 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 #: 851540**

**HCVF Name:** Pine Hemingway Creek

**Acres of HCVF site:** 833.39

**County:** Winona

**Data edited by:** Region 3 HCVF Team

**Role:** Region 3 HCVF Team

**Date edited on:** 2013-07-24

**Corresponding Land Administrator(s):** FOR

**Management Unit Name(s) (if applicable):** Pine Creek Unit (Pine Hemingway Creek Area)

## HCVF Summary

This site contains steep slopes and terraces above Hemingway Creek, the west side of Pine Creek, and Coolridge Creek to the north. It's a highly significant site for rare birds, algific talus slopes, rare snails, bats, plants, and mature maple-basswood, oak, northern hardwood-conifer, white pine-hardwood, and lowland hardwood forests. It's very scenic and contains one of the largest patches of MHc38a in Minnesota.

### 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): James' carex (*Carex jamesii*), false mermaid (*Floerkea proserpinacoides*), smooth-sheathed sedge (*Carex laevivaginata*), spreading sedge (*Carex laxiculmis*), a rare vascular plant species, green violet (*Hybanthus concolor*). HCV1e (Rare species concentration): nodding wild onion (*Allium cernuum*), James' carex (*Carex jamesii*), false mermaid (*Floerkea proserpinacoides*), smooth-sheathed sedge (*Carex laevivaginata*), spreading sedge (*Carex laxiculmis*), green violet (*Hybanthus concolor*), Acadian flycatcher (*Empidonax virescens*), Louisiana waterthrush, Tricolored bat (*Pipistrellus subflavus*), cerulean warbler, beaked snakeroot (*Sanicula trifoliata*), cliff goldenrod (*Solidago sciaphila*), Wood's sedge (*Carex woodii*), stemless tick-trefoil (*Desmodium nudiflorum*), Goldie's fern (*Dryopteris goldiana*), moschatel (*Adoxa moschatellina*), silverleaf grape (*Vitis aestivalis*), squirrel-corn (*Dicentra canadensis*); HCV1f (Taxonomic group concentration): sedges, birds; HCV1g (Outstanding Key Habitats Examples): cliff and talus; HCV2-EBFb (old forest): yes; HCV3b (S1 or S2 plant community): CTs46a2 [2 records: BC rank in 1990 and BC rank in 1999], CTs43a2 [B rank, 1990], MHc38a [A rank, 1994], MHs49b [2 records: C rank in 1993, BC rank in 1993], WFs57b [BC rank, 1999]; HCV3c (Special S3 plant community): MHs38c [B rank, 1993], MHs39b [6 records: B rank in 1991, not ranked in 1992, B rank in 1993, and 3 records AB rank in 1993], MHs38a [3 records: not ranked in 1991, AB rank in 1993, B rank in 1996], FDs38a [AB rank in 1993]; HCV3e (Old-growth forest): stand 59 O63, stand 54 NH54;

## Management Considerations

### Overall management objectives for the entire HCVF:

With the quantity and distribution of the HCVs at this site, uneven aged management is likely the only appropriate silvicultural strategy (depending on location of proposed treatment). Special care will have to be given to buffering around the sensitive cliffs, plants, and animal populations with no-harvesting/no-equipment zones. Understory burning or understory/midstory control in some mesic hardwood and fire dependent woodlands may be appropriate. Invasive species management may be necessary. The High Bio Plan and memofrom Commissioner's Office for this area should be consulted for previously agreed-upon goals, objectives, and management strategies for this unit. Also, consult the Hemingway Creek Cold Slope Representative Sample Area Memorandum of Understanding.

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

High Biodiversity Site Plan

### Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)?

\_Yes\_

*This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below.*

More than half of the original MBS site is on private land so landowner coordination would benefit the maintenance or enhancement of the HCVs at this site. There are about 30 private landowners surrounding the HCVF site. Much of the private ownership is agricultural land.

## General Comments

This site has a High Bio Plan written. The site's boundaries differ from the MBS site and the High Bio Plan boundaries in only that it excludes all non-state land (which reduced its size).

*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 ...