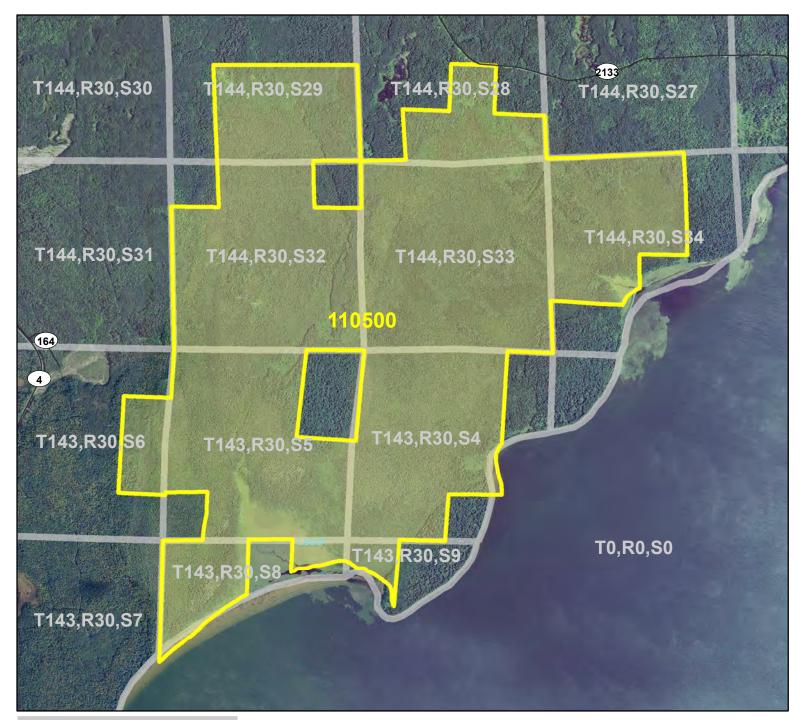
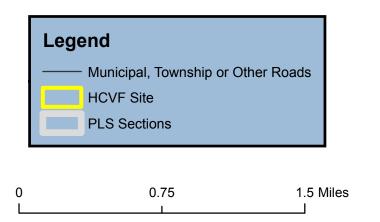


HCVF Site 110500 Hardwood Point, Cass County



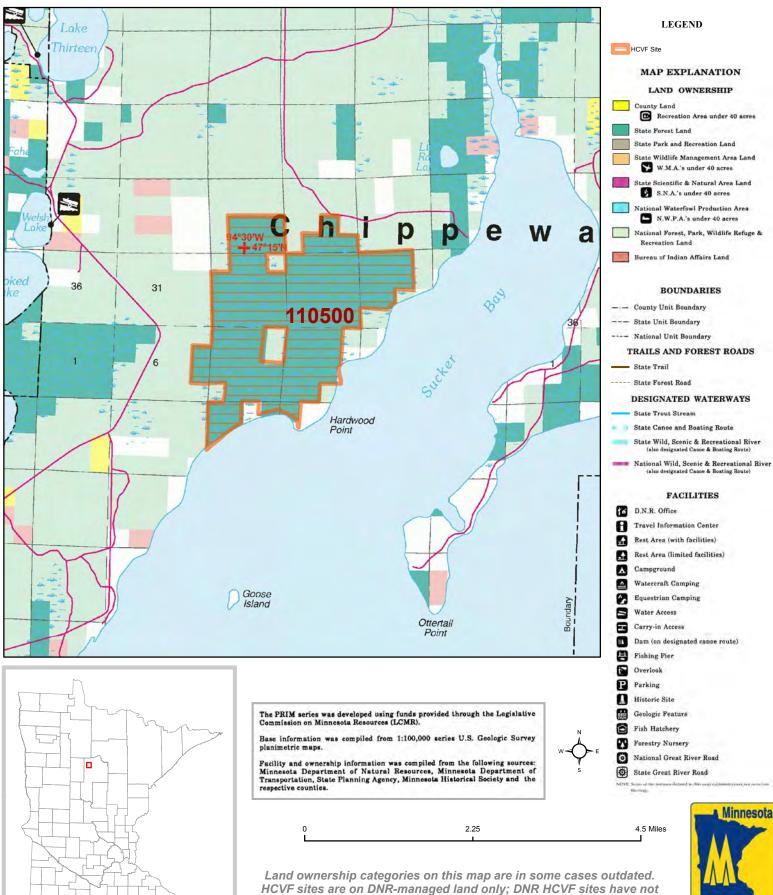








HCVF Site 110500 Hardwood Point, Cass County



been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 110500 HCVF Name: Hardwood Point Acres of HCVF site: 3113.00 County: Cass

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Bowstring State Forest

HCVF Summary

Contiguous block of swamp forest (cedar, tamarack, and ash) on state lands, surrounded by mesic hardwoods on Chippewa NF; MHs39c = 23+ acres; >500 acres of old cedar that is probably primary forest. Most of MHs39c also likely primary forest. Designated OG cedar, 32 acres; an OG also in 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.

LAURENTIAN MIXED FOREST PROVINCE HCVS: 1b (S1 or S2 species): 2 plants; 2bi -LMF (Late successional forest block): 3,113 ac; 2bii - LMF (Late-successional forest blocks with rare species): yes; 3b (S1 or S2 plant community): MHs39c (greater than 80 acres); 3c (Special S3 plant community): FPn63 (greater than 2, 300 acres), MHn47 (greater than 150 acres); 3e (Old growth forest): 32 acres Cedar, some; 3f (Potential primary forest).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer. - Determine extent of the rare plants; actively maintain and manage the plant communities for the rare plants. - Minimize size and impact of management on continuous crown to maintain habitat for rare plants. - Maintain intact nature of forest block. - Manage to maintain or promote older growth stages; maintain the designated and OG. - Verify primary forest.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP.

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.

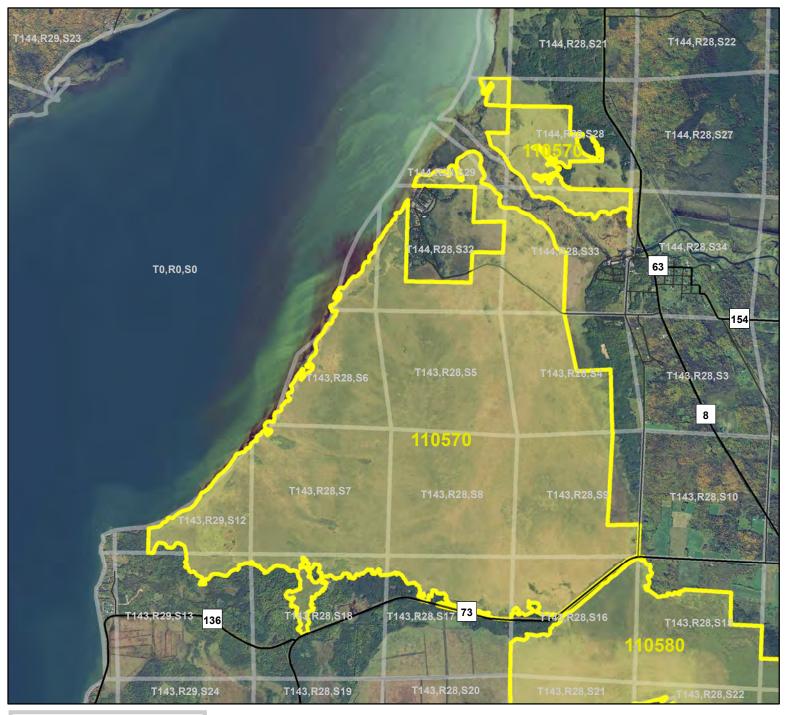
HCV 1b, 2bi, 2bii, 3b, 3c, 3e. Multiple rare species, plant communities and SGCNs extend onto adjacent federal lands.

General Comments

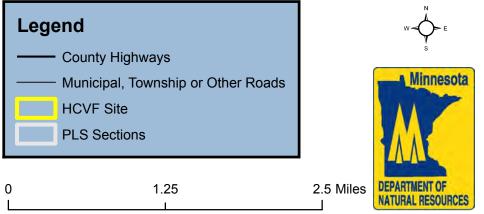
No information entered.

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.

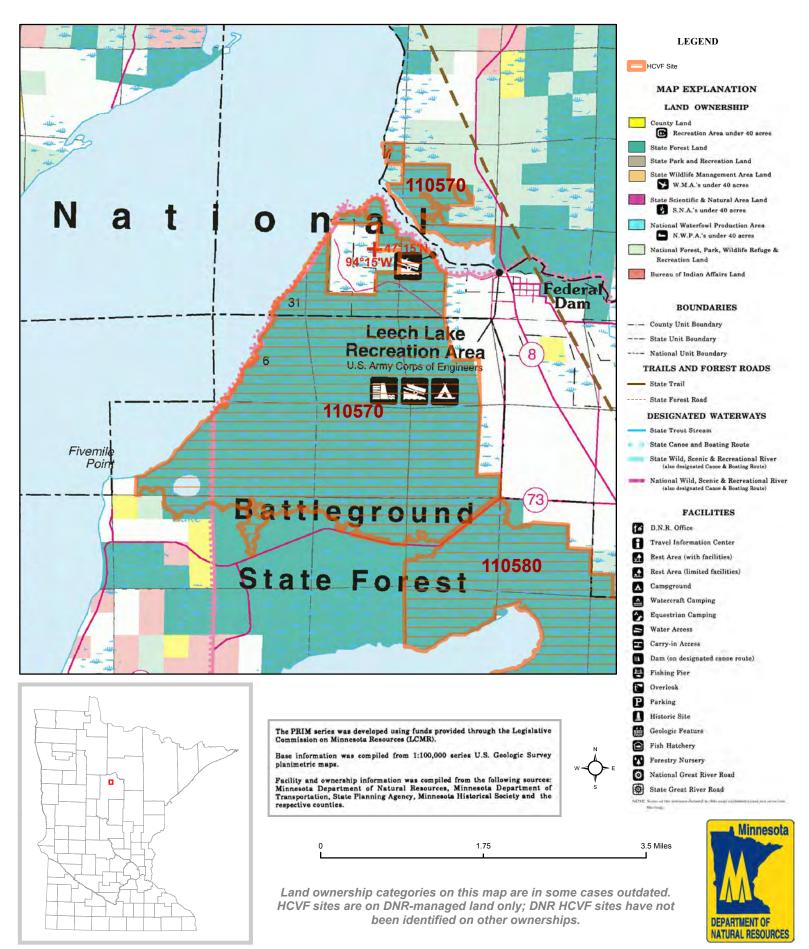
HCVF Site 110570 Sugar Point Bog, Cass County







HCVF Site 110570 Sugar Point Bog, Cass County



Report Run: September 3, 2013

General Information

HCVF #: 110570 HCVF Name: Sugar Point Bog Acres of HCVF site: 5058.06 County: Cass

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Battleground State Forest

HCVF Summary

Large contiguous forested and open bog in state ownership, with shrub swamp, sedge meadow, and rich fens; many winter roads, past cutting; rare marsh birds documented. This site is one of the top two locations for yellow rails and sedge community birds in the Section. Several blocks of roadless areas in 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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1b (S1 or S2 species): 1 bird; 1e (Rare species concentration): 16 birds; 1g (Examples of outstanding key habitats): wetland-nonforest; 2a - LMF (Large forest/peatland block): 5,058 acres peatland; 2bii - LMF (Late-successional forest blocks with rare species); yes; 3b (S1 or S2 plant community): APn90 (1,431 acres); 3c (Special S3 plant community): FPn63, MHn47 (1,014 acres); 3g (Potential roadless area).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Manage to maintain or promote older growth stages. - Minimize size and impact of management on continuous crown to maintain patch designation. - Maintain openlands SMA in edges of site. - Apply uneven-aged management to MH communities and FP communities. - Actively manage rare plant communities and open landscape habitats to maintain, enhance and increase rare marsh bird and other SGCN habitat. - Determine the subtype for APn90 and verify FPn63 and its subtype. - Evaluate for roadless state and location of such within HCVF.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP.

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.

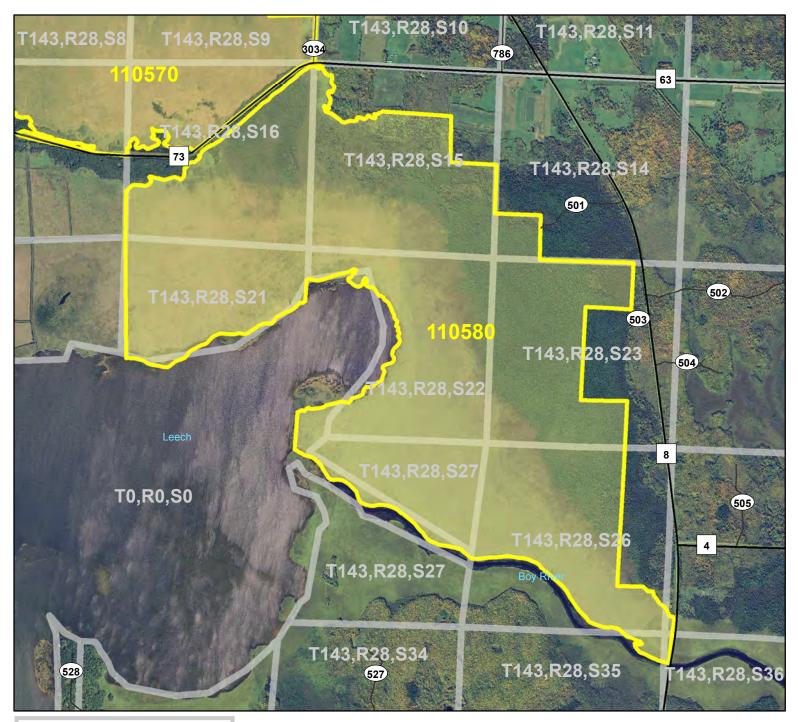
HCV 1b, 1e, 1g, 2a, 2bii, 3b, 3c, 3g. Multiple rare species, plant communities, and SGCNs extend onto adjacent private and federal lands.

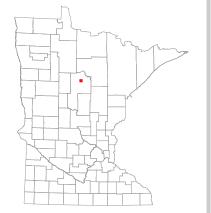
General Comments

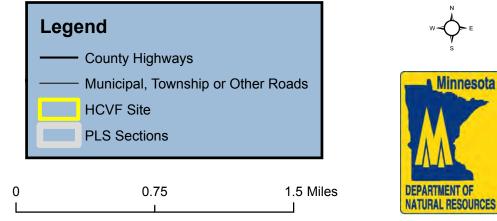
There are limited opportunities for harvest or other active management.

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.

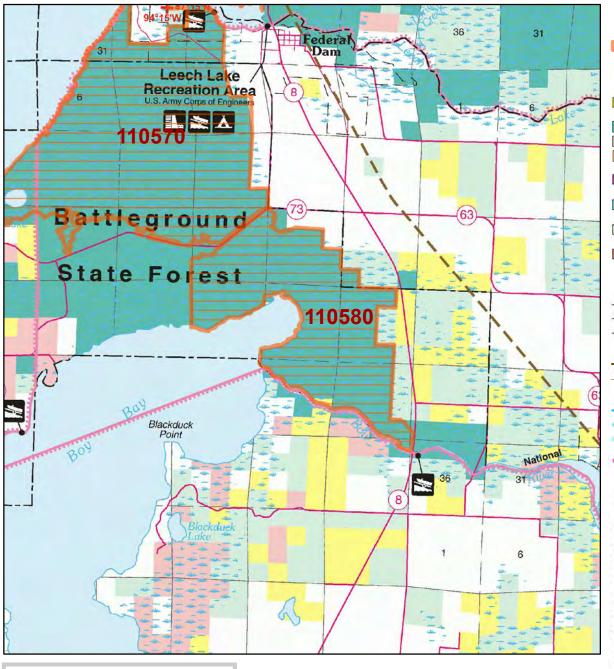
HCVF Site 110580 Gould 22, Cass County







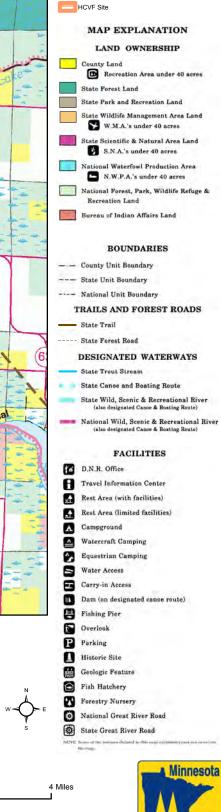
HCVF Site 110580 Gould 22, Cass County



planimetric maps.

respective counties.

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LEGEND

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.

2

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

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



Report Run: September 3, 2013

General Information

HCVF #: 110580 HCVF Name: Gould 22 Acres of HCVF site: 2709.81 County: Cass

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Battleground State Forest

HCVF Summary

Approximately 2,300 acres of contiguous sedge meadow, rich tamarack swamp, and cedar swamp on state lands. Several blocks of roadless areas in the two sites.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1b (S1 or S2 species): 1 bird; 1e (Rare species concentration): 9 birds; 1g (Examples of outstanding key habitats): wetland-nonforest; 2a - LMF (large forest/peatland block): 2,710 acres peatland; 2bii - LMF (late successional forest blocks with rare species): yes; 3c (Special S3 plant community): FPn63, MHn47 (3 acres); 3g (Potential roadless area).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Manage to maintain or promote older growth stages; minimize size and impact on continuous crown to maintain the patch(s). - Maintain openlands SMA in western portion of site. - Actively manage for rare plant communities and open landscape characteristics to maintain, enhance and increase rare birds and conduct SGCN analysis for habitat needs. - Maintain roadless state.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

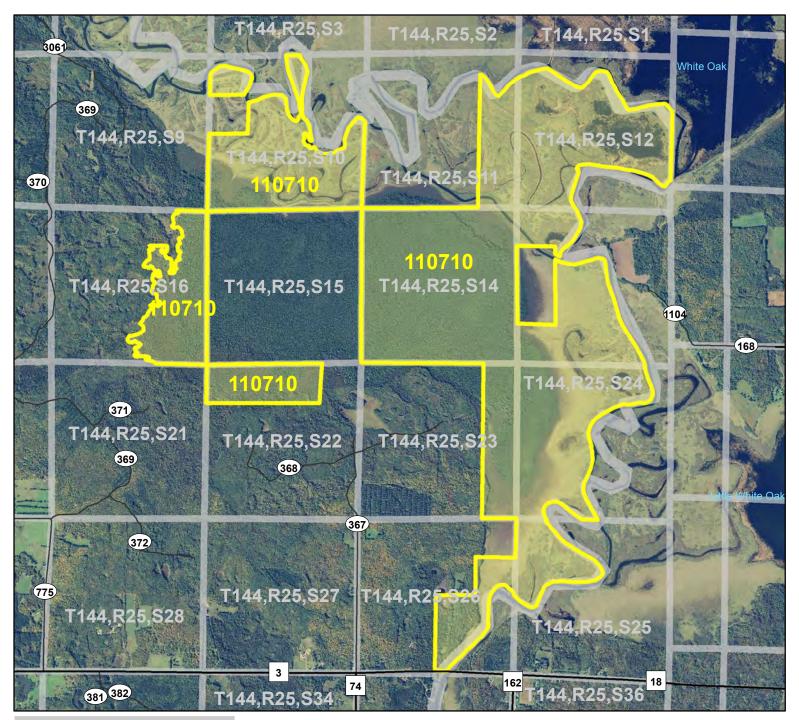
HCV 1b, 1e, 1g, 2a, 2bii, 3c, 3g. Multiple rare species and SGCNs extend onto adjacent private and federal lands.

General Comments

There are limited opportunities for harvest or other active management; harvest primarily confined to the eastern edge.

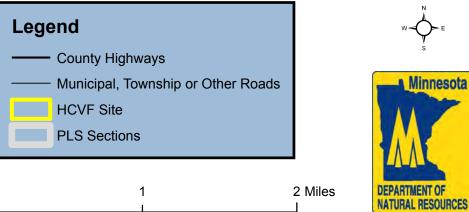
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 110710 Wahnena 14, Cass County





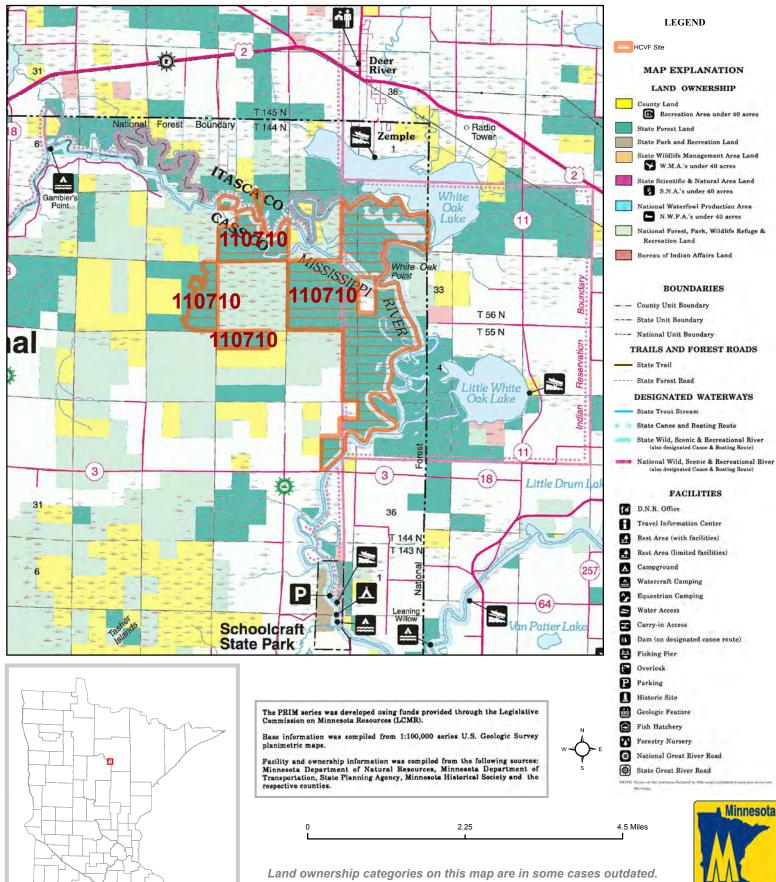
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Minnesota

HCVF Site 110710 Wahnena 14, Cass County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 110710 HCVF Name: Wahnena 14 Acres of HCVF site: 2934.27 County: Cass

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Bemidji Area Forestry

HCVF Summary

Sedge meadow, shrub swamp, tamarack swamp; along Mississippi River's abandoned oxbows; much adjacent USFS land. There are >500 acres of old conifer swamp on state land, which is also roadless. A 1947 Itasca photo shows the eastern edge of the conifer swamp in this site looking mature even back then, which suggests it may be primary 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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 2bi - LMF (late-successional forest block): 870 acres, southwest portion, cedar and tamarack; 3c (Special S3 plant community): FPn63b, MHn47, WFn55; 3f (Potential primary forest): cedar and tamarack, southwest portion; 3g (Potential roadless area): yes.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Manage to maintain or promote older growth stages. - Verify the extent and subtype of the MHn47; manage for older uneven-aged forest. - Verify the subtype for WFn55, since it might be S3 ranked. - Maintain the roadless state of this HCVF.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

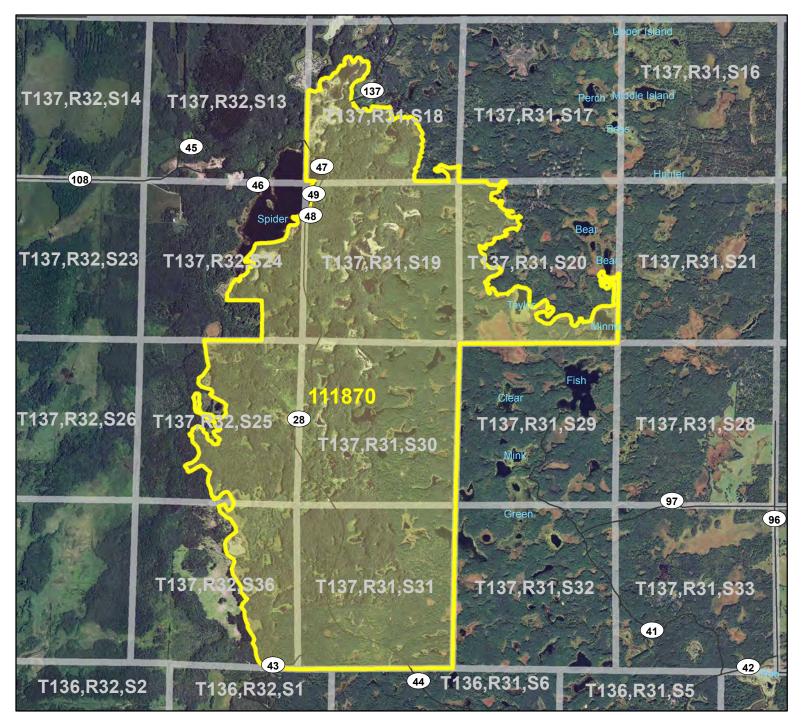
HCV 2bi, 3c, 3f, 3g. Multiple rare plant communities extend onto Cass count and USFS lands.

General Comments

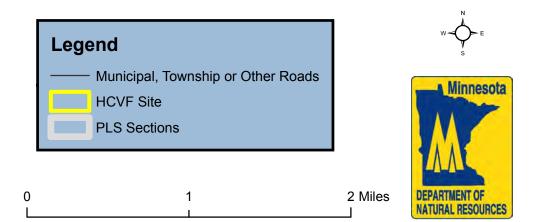
There are limited opportunities for harvest or other active management.

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.

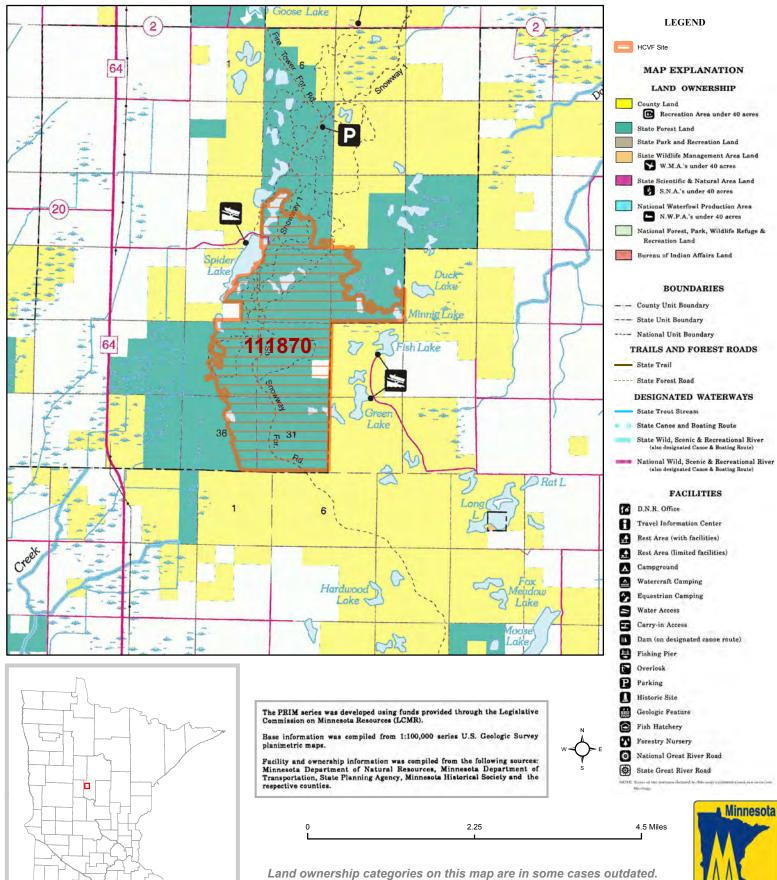
HCVF Site 111870 Bungo 29, Cass County







HCVF Site 111870 Bungo 29, Cass County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 111870 HCVF Name: Bungo 29 Acres of HCVF site: 3093.79 County: Cass

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Park Rapids Area Forestry

HCVF Summary

Large block of oak-aspen-red maple forest; hilly terrain with many small lakes and wetlands. More than 2,900 acres of contiguous forest interrupted by lakes and wetlands; red-shouldered hawk habitat; large area of contiguous, mature dry-mesic hardwood forest. Much of aspen is young but lots of land typed as mature oak. Fairly dissected; may add moderate sites.

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1g (Examples of outstanding key habitats): wetlandnonforest, forest-upland coniferous (red-white pine); 2a EBF (Intact forest block): yes, 3,094 acres; 2d EBF (forest blocks with vernal pools): yes; 3b (S1 or S2 plant community): FDc34; 3c (Special S3 plant community): APn91; 3d (Natural origin pine stand).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Minimize size and impact on crown closure from any harvest activities; maintain at least 50% crown closure. - Identify location of regionally rare species documented on HCV perimeters and follow applicable recommended habitat guidelines. - Maintain diverse ground cover. -Maintain current mix of cover types and age classes across the HCVF; look for opportunities to promote older growth stages. - Verify rare NPC subtypes. - Minimize development of shrubs in understory. - Consult latest BMP recommendations for vernal pools.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP. MFRC riparian scientific report.

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.

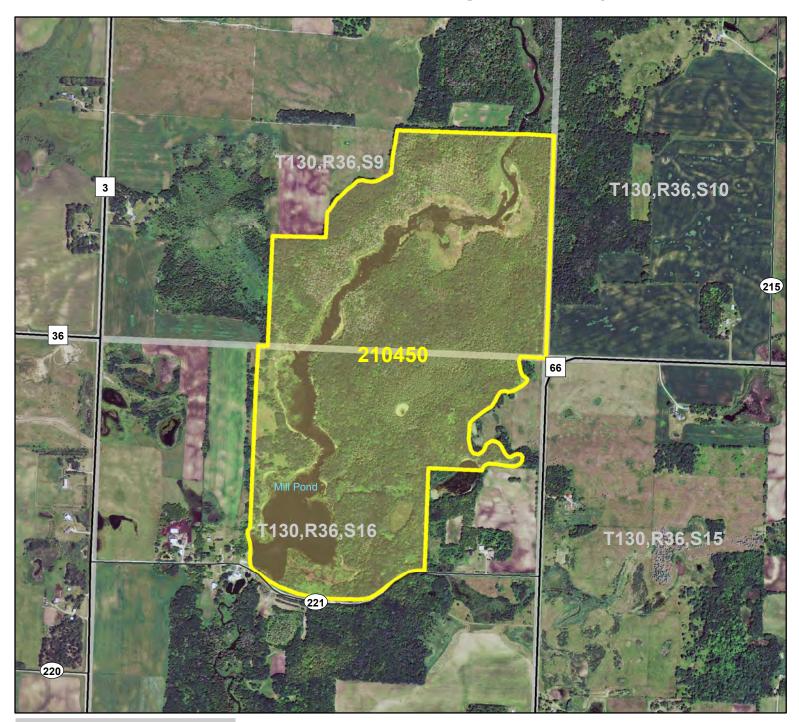
HCV 1g, 2a, 2d, 3b, 3c. Likely rare NPCs and confirmed rare species extend onto adjacent Cass county and private lands.

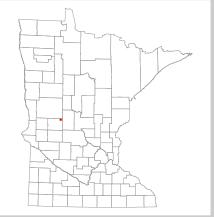
General Comments

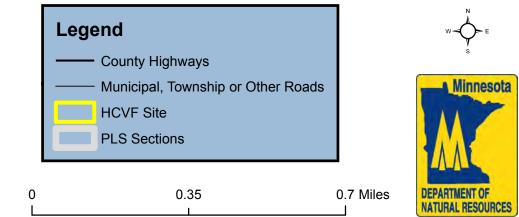
Site includes a high density of OHV trails (Spider Lake OHV system).

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.

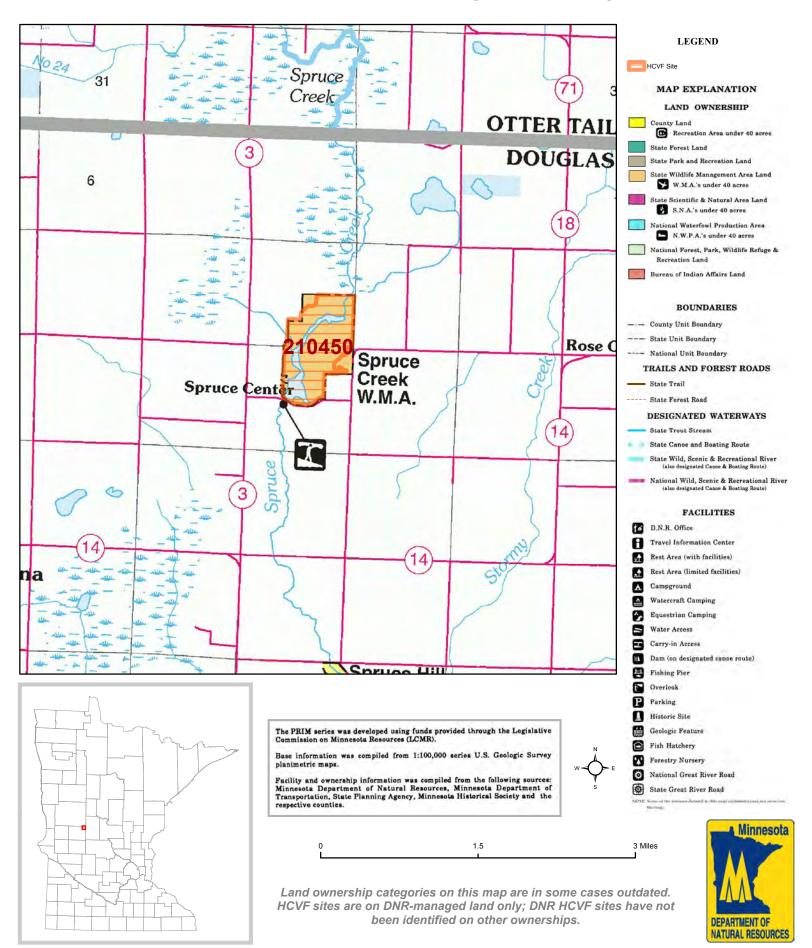
HCVF Site 210450 Spruce Creek 45, Douglas County







HCVF Site 210450 Spruce Creek 45, Douglas County



Report Run: September 3, 2013

General Information

HCVF #: 210450 HCVF Name: Spruce Creek 45 Acres of HCVF site: 324.33 County: Douglas

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife Management Unit Name(s) (if applicable): Spruce Creek WMA

HCVF Summary

TheMBS Site encompasses Spruce Creek, the lowlands along the creek and the narrow band of uplands above the floodplain. Beyond this, the land is mostly cultivated. The upland areas have oak forest with a canopy of bur oak, pin oak, some sugar maple, balsam fir, aspen, paper birch, occasional red oak and basswood. Generally there is a transition zone of black ash swamp along the margin of the upland and lowland which merges into tamarack swamp or shrub swamp/wet meadow along the creek. The best quality part of the site is in the WMA, which surrounds a 1- $\hat{A}^{1/4}$ mile stretch of the creek. Here the tamarack swamp is especially rich and large (94 acres). Part of the lowland area in the WMA has a continuous canopy of balsam fir with only occasional tamaracks. WMA also includes 189 acres of FDs37b and 18 acres of WMn82b. A special concern plant is found in the tamarack swamp. Several records of red-shouldered hawks. Golden-winged warbler and several conifer-associated passerines at extreme SW edge of their range. High-quality, species-rich FPs63a (G2/S2) well-buffered by upland forest; intact riparian corridor, and unique combination of northern species at edge of their ranges. Private land within MBSsite recommended by CAC for acquisition as SNA. A long (6 miles) narrow (generally 1/2 mile wide) site stretching along Spruce Creek.

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1e (Rare species concentration): 12 birds; 1g (Examples of Outstanding Key Habitats): Forest-Upland Deciduous (Aspen-oak), Forest-Upland Deciduous (Hardwood), Wetland-Nonforest; 2a - EBF (intact forest block): yes, 324 acres of just state lands, aspen, oak, and tamarack; 2c - EBF (forest block in ag. landscape): yes, 324 acres of just state lands; 3a (G1 or G2 plant community): FPs63a (81 acres); 3b (S1 or S2 plant community): FPs63a (81 acres); 3c (Special S3 plant community): FDs37b (142 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Manage this area as an intact forest block. - Avoid any operations that may change the hydrology of this system. - To maintain/enhance FDs37b, consider removing some of the canopy to restore woodland conditions and encourage oak regeneration and/or use mild surface prescribed burns to reduce mesic forest species.

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

2012 Hardwood Hills SFRMP.

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.

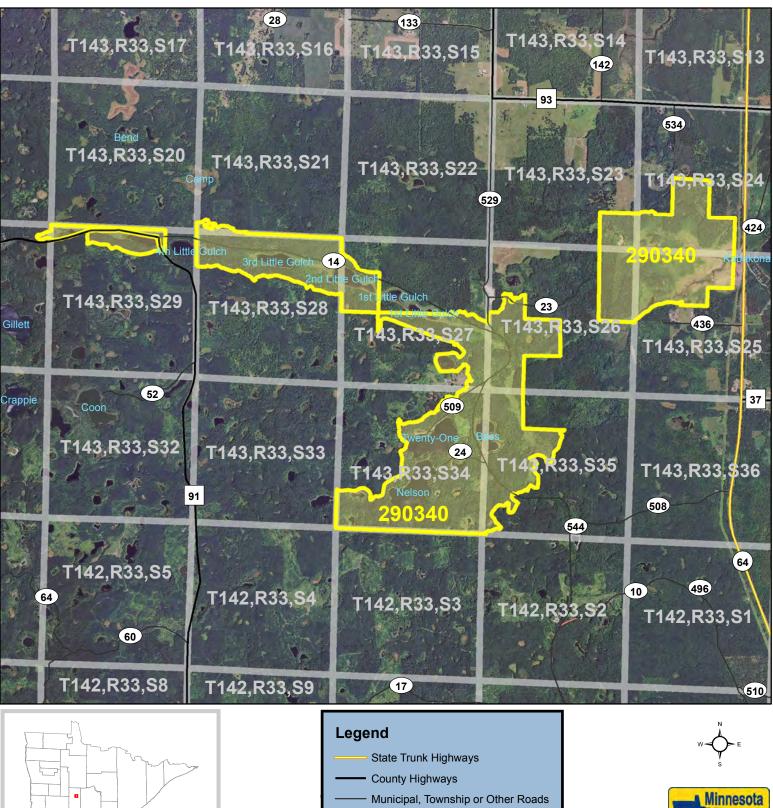
HCV1e, 1g, 2a, 2c, 3a, 3b, 3c. Multiple rare NPCs, rare species and their habitats extend onto adjacent private land.

General Comments

Verify the rare species of concern; the red-shouldered hawk. As an example of management, Forestry would likely recommend do nothing for management until some natural events forced their hands and will have a private lands forester contact the adjacent landowner, especially to the south to raise awareness and seek cooperative management.

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.

HCVF Site 290340 Hendrickson 26, Hubbard County



Ramps HCVF Site PLS Sections

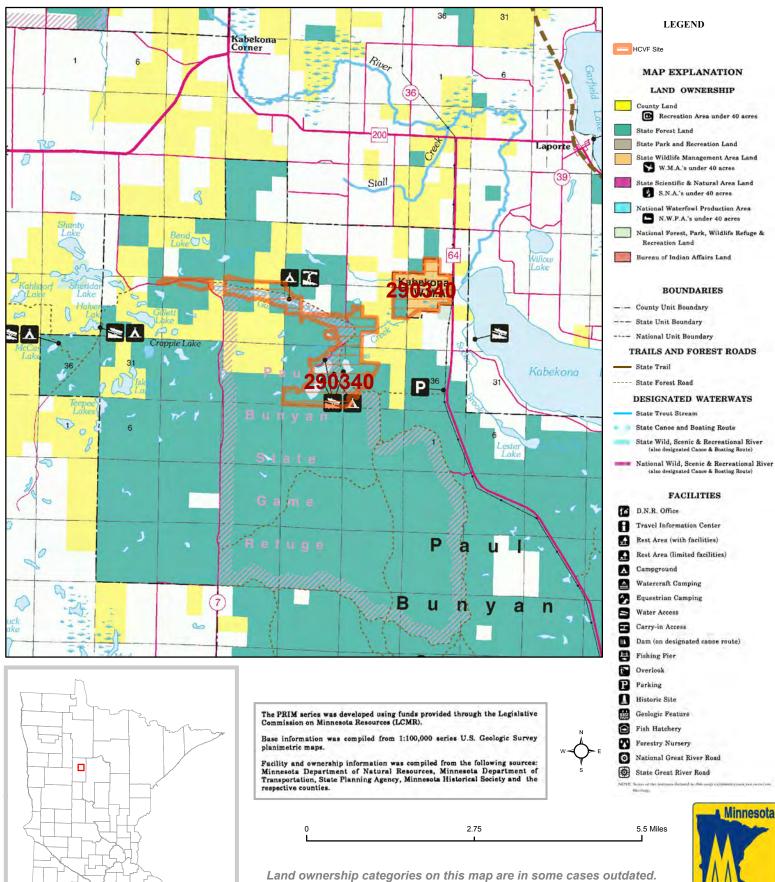
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2 Miles

HCVF Site 290340 Hendrickson 26, Hubbard County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 290340 HCVF Name: Hendrickson 26 Acres of HCVF site: 1550.41 County: Hubbard

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry/Wildlife **Management Unit Name(s) (if applicable):** Kabekona WMA, Paul Bunyan State Forest

HCVF Summary

Large area of rolling hills and wetlands. Upland forest on most of site is dry-mesic oak aspen forest. Site centered on Little Gulch Lake Valley, which is deep and steep-side and runs 2.5 miles east/west, six lakes connected by narrow channels, north-facing slopes with wet-mesic boreal hardwood forest (high potential for refugia with climate change). State-ownership include most of valley.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1b (S1 or S2 species): 1 fish and 1 plant; 1e (Rare species concentration): 13 birds; 2a - LMF (Large forest/peatland block): 1,550 acres forest; in and around site; 3a (G1 or G2 plant community): FDc23a (21 acres); 3b (S1 or S2 plant community): FDc23a (21 acres), FDc34a (

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain and restore riparian areas around lakes and streams to minimize and avoid potential damage. - Use less intensive forest management techniques in the areas where the rare species are found. - Maintain diverse ground layer. - Manage the jack pine and red pine dominated areas to enhance those rare NPCs. - Manage as a large forest block with more of a pine component - Natural seeding and prescribed burning can be viable methods to promote the above objectives. - Maintain natural hydrology and monitor for invasives to maintain/enhance MRn83b and old-growth forests.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP. MFRC riparian scientific report.

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.

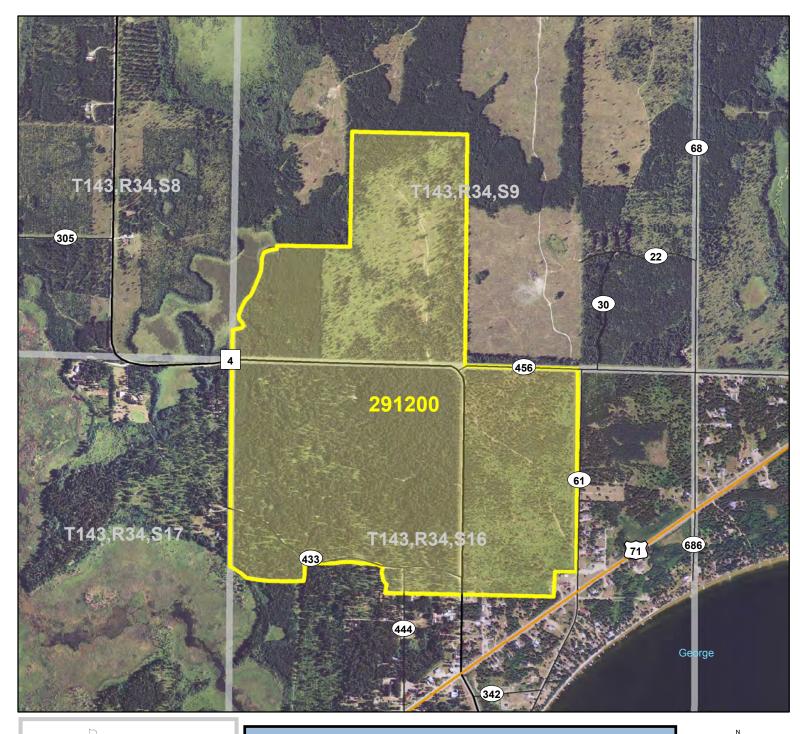
HCV1b, 1e, 2a, 3a, 3b, 3e. The rare species, NPCs, SGCN, and Old Growth forest extend onto adjacent Hubbard County and private lands.

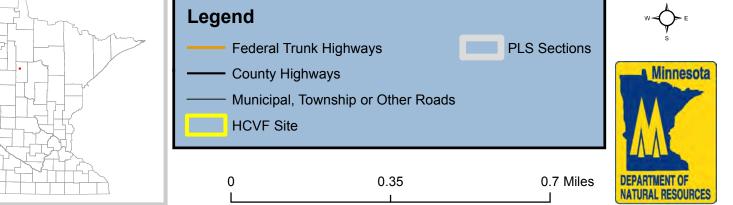
General Comments

Review the 7 acres of designated OG cover typed as balsam poplar.

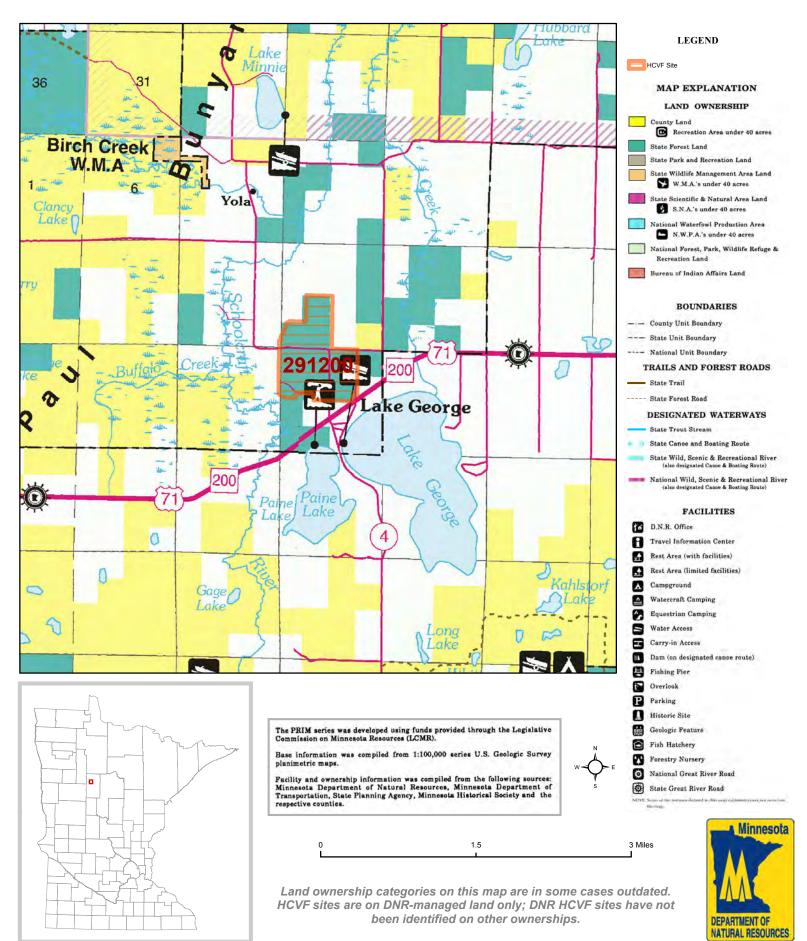
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 291200 Lake George, Hubbard County





HCVF Site 291200 Lake George, Hubbard County



Report Run: September 3, 2013

General Information

HCVF #: 291200 HCVF Name: Lake George Acres of HCVF site: 351.49 County: Hubbard

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Paul Bunyan State Forest

HCVF Summary

Entire site is jack and red pine; very nice FDc12a; good habitat for state threatened plant species.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1b (S1 or S2 species): plant; 3a (G1 or G2 plant community): FDc23a; 3b (S1 or S2 plant community): FDc12a, FDc23a; 3d (Natural origin pine stand); 3e (Old-growth forest): 31 acres of red pine.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer. - Maintain canopy structure for rare plant. - Actively manage rare plant communities to maintain, enhance and increase where necessary. - Manage to maintain jack pine cover types. - Manage to maintain or promote older growth stages. - Verify acres of natural origin pine stands.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP

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.

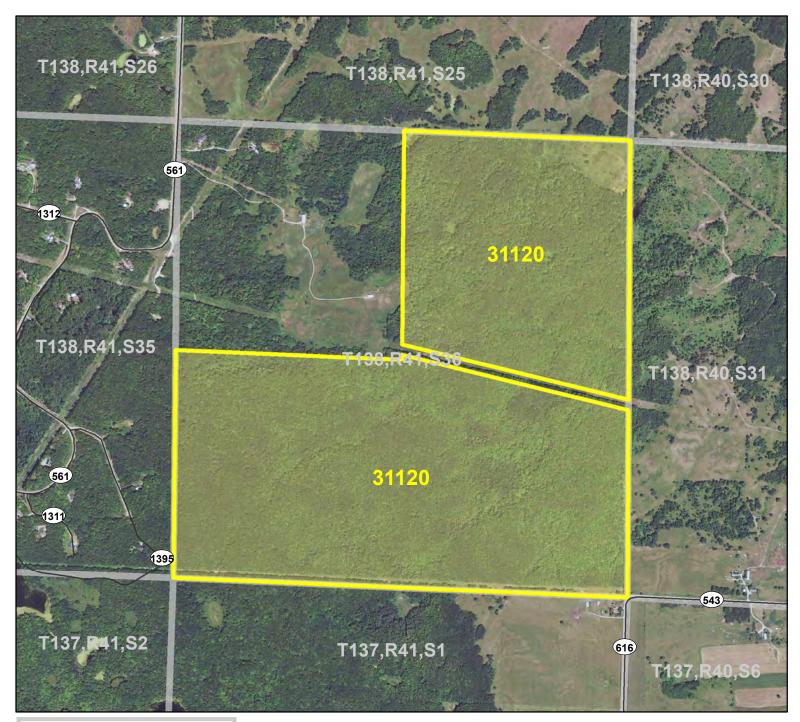
HCV 1b, 3a, 3d, 3e. Rare species and NPCs likely extend onto adjacent private, Hubbard county and industry lands.

General Comments

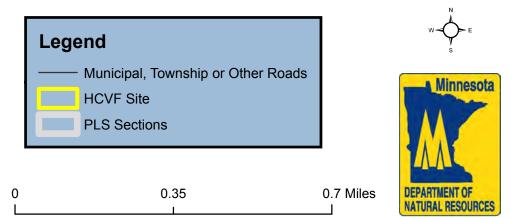
Management needs to be coordinated especially for the rare NPCs.

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.

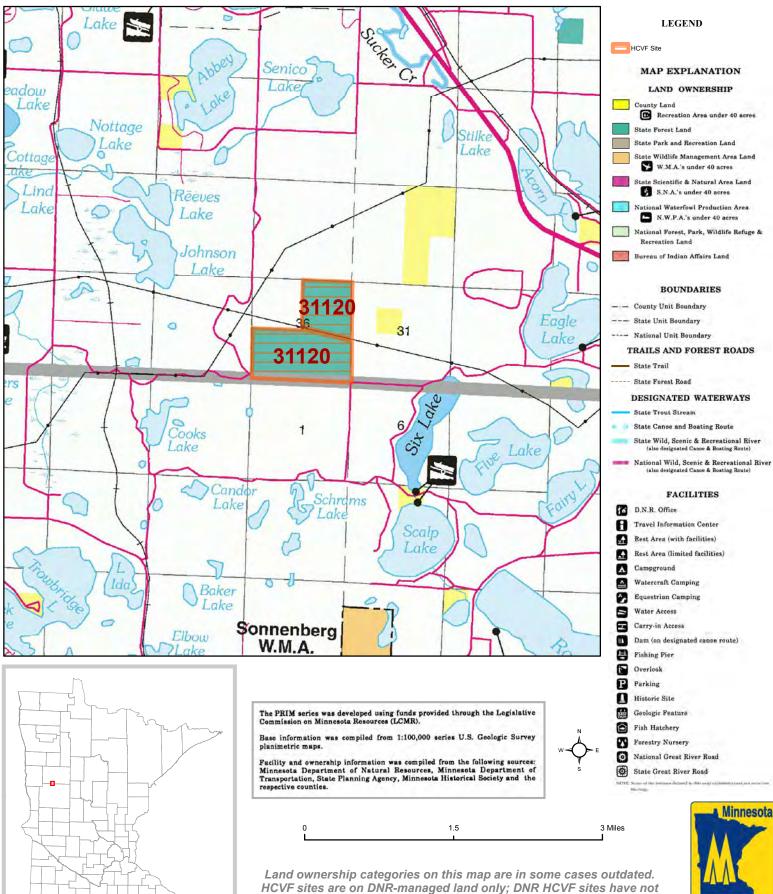
HCVF Site 31120 Lakeview 36, Becker County







HCVF Site 31120 Lakeview 36, Becker County



been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 31120 HCVF Name: Lakeview 36 Acres of HCVF site: 478.58 County: Becker

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Park Rapids Area Forestry

HCVF Summary

Central Mesic Hardwood Forest (Sugar Maple - Basswood - (Aspen) Forest) on rolling terrain. Southern Section 36 (in WMA) is best portion of site. Soil is loamy sand. This site along with private land in Otter Tail Site #112, which abuts the site to the south, was approved by CAC for SNA acquisition; these two sites represent an 1,800 acre unfragmented forest landscape. Terrain is strongly rolling and dominated by red oak, basswood, and sugar maple. This site is a classic, high quality, example of MHc37. Some basswood and oak are very large (60-70cm dbh). There are old logging roads/now ATV roads that run on the west side of the site and meet the power line that dissects the site in half. The north half of the site (north of the power line) appears younger and more disturbed with much more aspen and paper birch. A "B-ranked" population of a S1 plant (only population known from H or O sites in Section) is located near a couple of recent patch cuts just south of the power line in a low area. Releves 3450 and 3846. Cerulean warblers and red-shouldered hawks, and Galearis spectabilis found adjacent to this 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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1b (S1 or S2 species): 1 plant; 1e (Rare species concentration): 8 birds; 1g (Examples of outstanding key habitats): forest-upland deciduous (hardwood); 2b - EBF (old forest): yes; 2c - EBF (forest block in ag landscape): 479 acres.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer. - Determine extent of the rare plants; actively maintain and manage the plant communities for the rare plants. - Minimize size and impact of management on continuous crown to maintain habitat for rare plants and the intact forest block. - Develop uneven-aged stands. - Manage to maintain or promote older growth stages; transition MHc37 to more mature growth stage.

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

2012 Hardwood Hills SFRMP

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

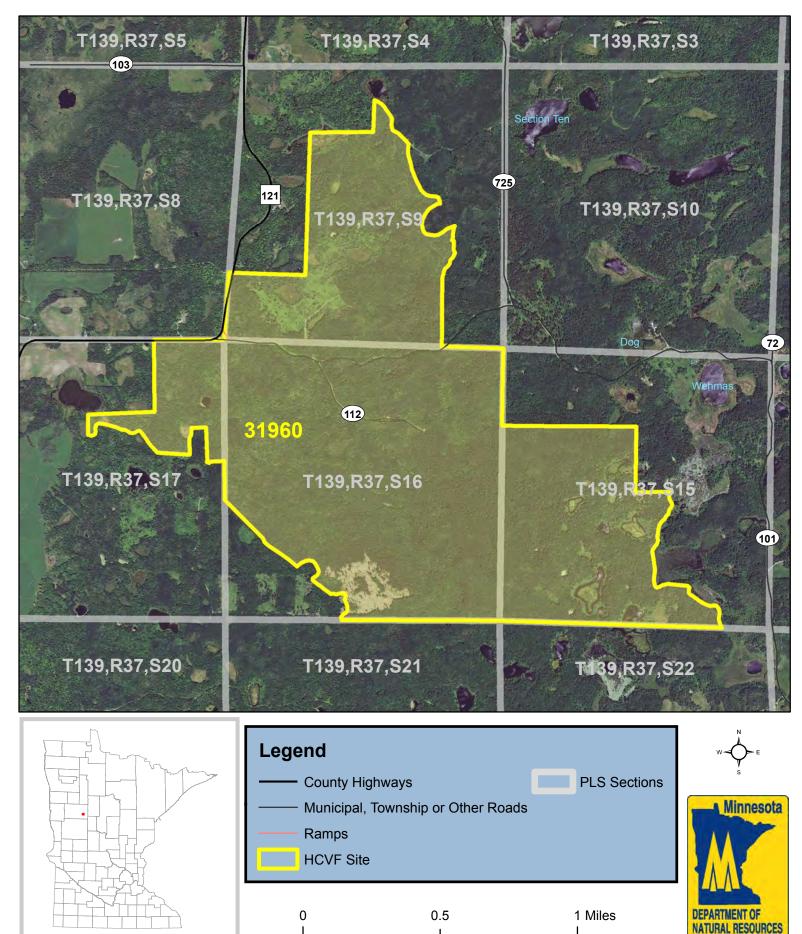
This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below. HCV 1e, 1g, 2b, 2c. Multiple SGCNs extend onto adjacent private lands.

General Comments

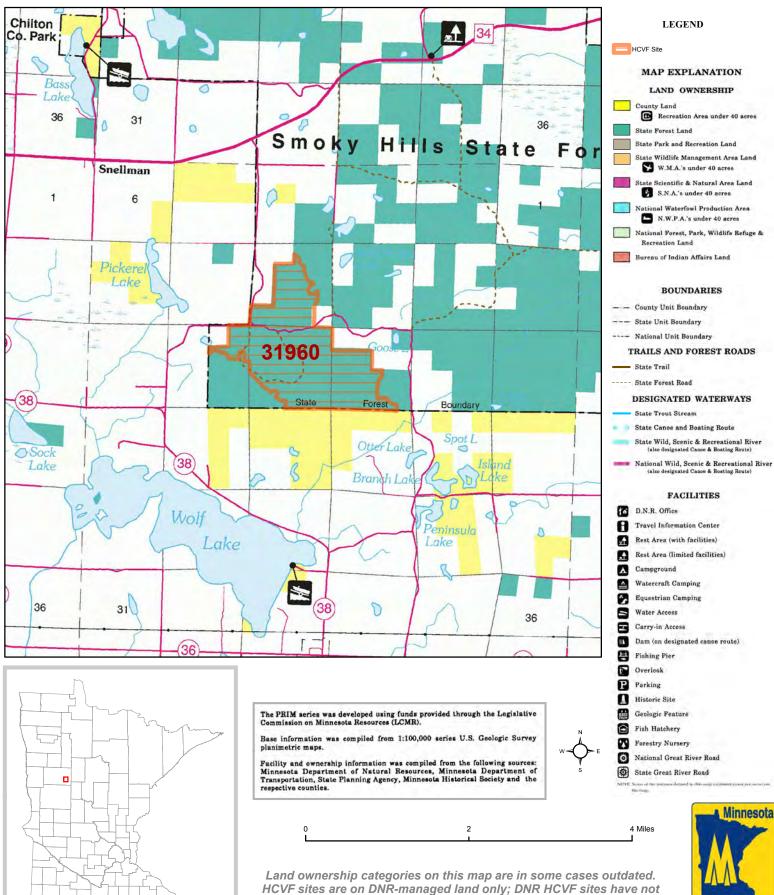
No information entered.

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.

HCVF Site 31960 Smoky Hills 4, Becker County



HCVF Site 31960 Smoky Hills 4, Becker County



/F sites are on DNR-managed land only; DNR HCVF sites have been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 31960 HCVF Name: Smoky Hills 4 Acres of HCVF site: 1201.19 County: Becker

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Smoky Hills State Forest

HCVF Summary

Hardwood conifer forest (NH and WP+RP); least fragmented area in Smoky Hills; 1,125 acre contiguous block of mature/OG forest in state ownership - 143 acres NH, and 64 acres RP designated as old growth.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1e (Rare species concentration): birds; 1g (Examples of Outstanding Key Habitats): Forest-Upland Coniferous (Red-white pine); 2a - LMF (Large forest/peatland block): 1,201 acres, in and around the site; 2bi - LMF (late successional forest block): yes; 3b (S1 or S2 plant community): FDc34a (353 acres); 3c (Special S3 plant community): FDc34b, APn91b; 3d (Natural origin pine stand): red pine (206 acres); 3e (Old-growth forest): northern hardwoods (143 acres), Norway pine (64 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain the diverse ground layer. - Maintain continuous canopy and develop uneven-aged stands. - Actively manage and maintain the rare plant communities and key habitat. - Manage to maintain or promote older growth stages. - Verify the natural origin pine. - Verify the amount of old growth SMZ and OFMC.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP.

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.

HCV 1e, 1g, 2a, 2bi, 3b, 3c, 3d, 3e. Multiple SGCN and rare plant communities extend onto adjacent Becker county and private lands.

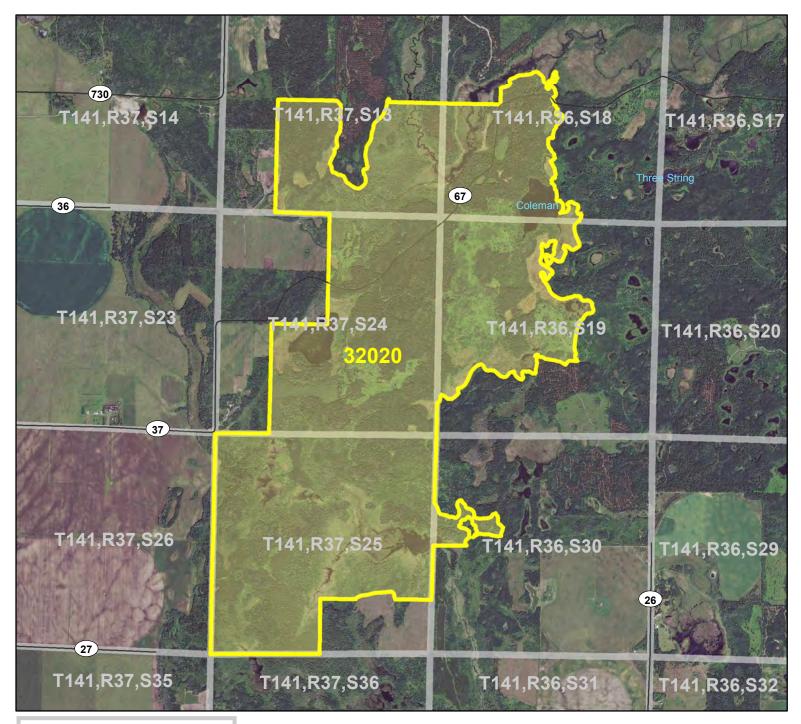
General Comments

Determine if it is appropriate to apply HCVs from EBF; EBF HCVs that apply include 2bii (forest block in ag landscape), and 2d (forest block with vernal pools).

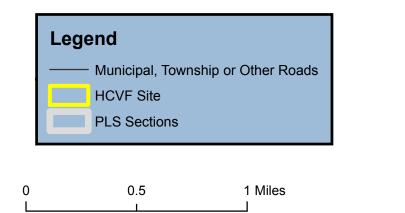
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 32020

Straight River Headwaters (aka Belden Swamp), Becker County



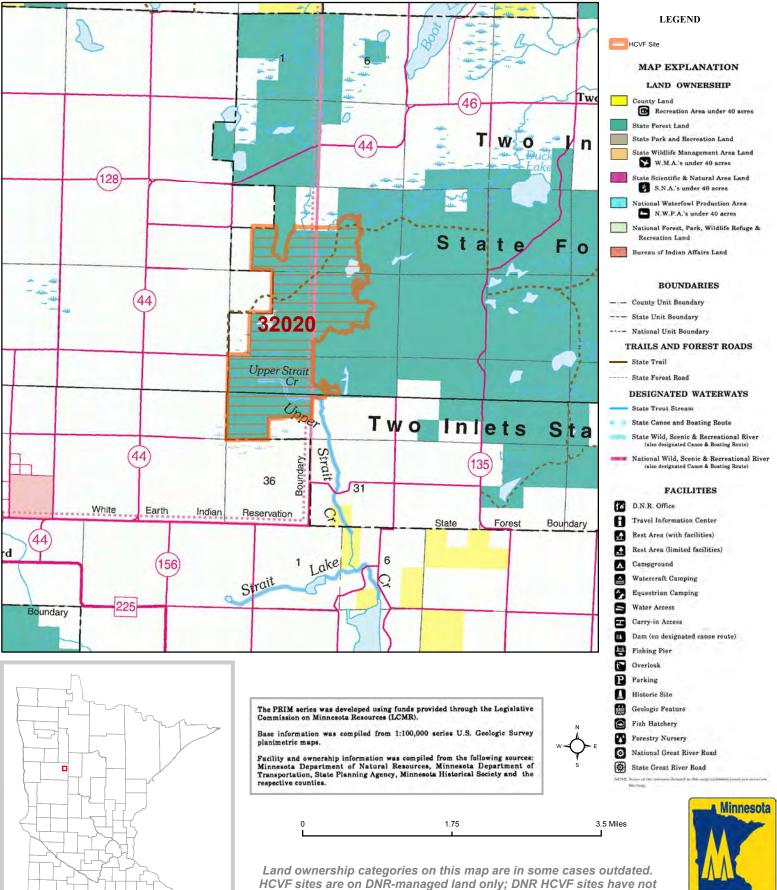








HCVF Site 32020 Straight River Headwaters (aka Belden Swamp), Becker County



Ites are on DNR-managed land only; DNR HCVF sites been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 32020 HCVF Name: Straight River Headwaters (aka Belden Swamp) Acres of HCVF site: 1636.26 County: Becker

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Two Inlets State Forest

HCVF Summary

Large forested, rich peatland complex which contains the headwaters of the Straight River, diverse and rare orchid flora, subsurface water movement beneath swamp conifers, and one of two cedar sites (EILC) in the county; upland areas contain significant acreage of FDc24a and FDc34a (S1-S3 NPCs).

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1b (S1 or S2 species): 2 orchids; 1f (Taxonomic group concentration): 3 orchids, 12 birds; 2a - EBF (Intact forest block): 1,636 ac; 2b - EBF (Old forest): yes; 2c - EBF (Forest block in ag. landscape): yes; 2d - EBF (Forest block with vernal pools): yes; 3b (S1 or S2 plant community): FDc24a (127 ac), FDc34a (126 ac); 3c (Special S3 plant comunity): FDc34b (48 ac), FPn63b (64 ac), MHn44d (46 ac); 3d (Natural origin pine stand): 154 ac of red and jack pine.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground cover. - Manage NPCs and hydrology to maintain and enhance orchid habitat and vernal pools. - Maintain canopy structure for rare orchids. - Maintain current mix of cover types across HCVF; look for opportunities to promote older growth stages. - Actively manage rare plant communities to maintain, enhance, and increase where necessary; verify subtypes. - Maintain intact nature of forest block. - Verify natural origin pine. - Consult latest BMP recommendations for vernal pools.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP. MFRC riparian scientific report.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

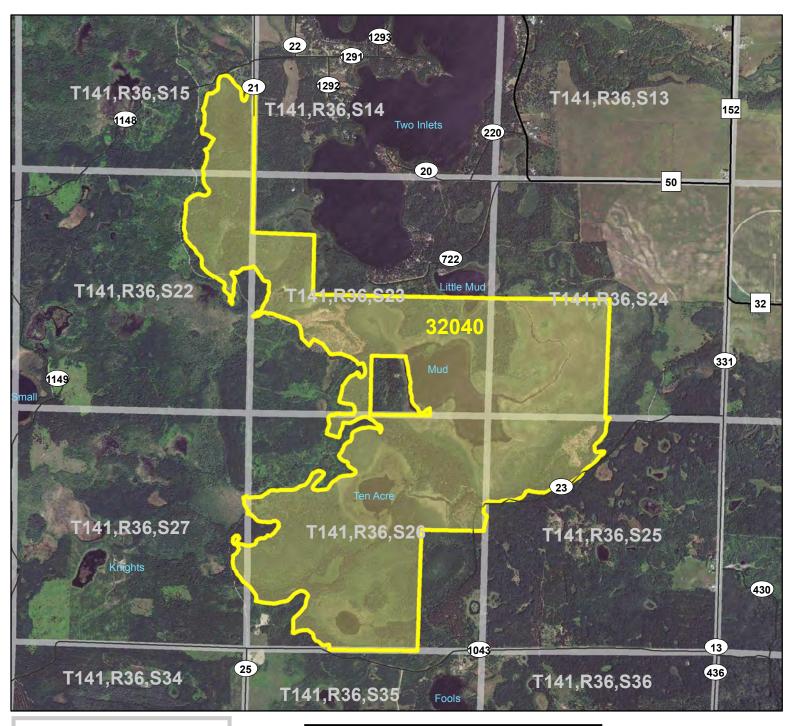
HCV 1b, 1f, 2a, 2b, 2c, 2d, 3b, 3c, 3d. Rare species, especially the orchids and birds, and rare NPCs likely extend onto adjacent private and industry lands.

General Comments

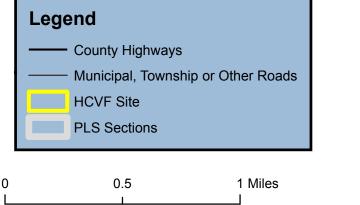
Management needs to be coordinated especially for the rare species, NPCs and to maintain the forest block. Hydrology should be evaluated to determine if management could be coordinated.

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.

HCVF Site 32040 Two Inlets Lake South, Becker County



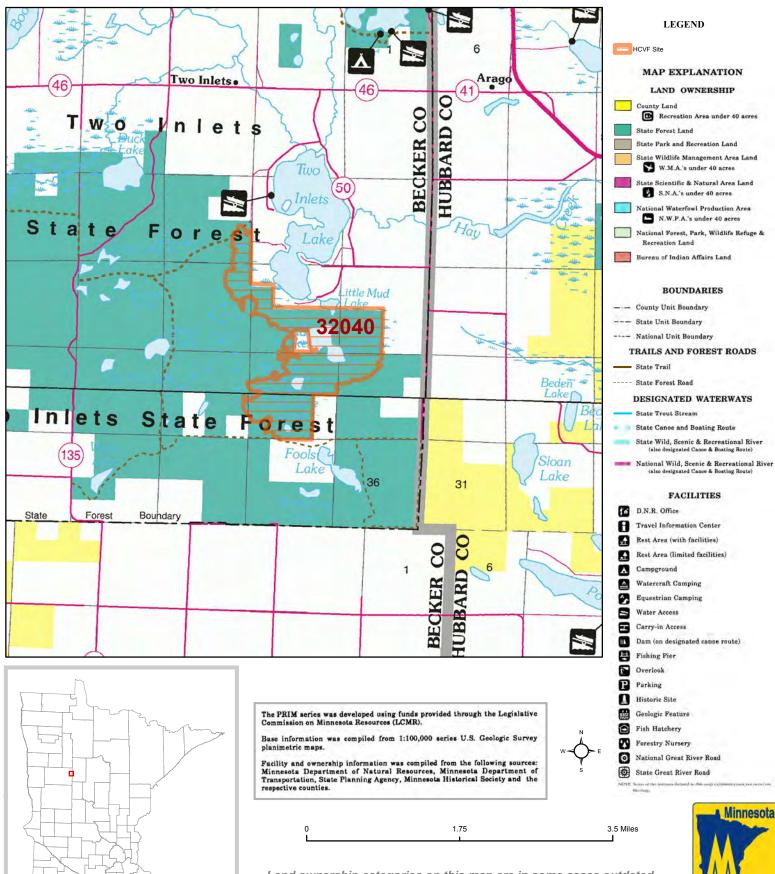








HCVF Site 32040 Two Inlets Lake South, Becker County



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.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 32040 HCVF Name: Two Inlets Lake South Acres of HCVF site: 1054.64 County: Becker

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Two Inlets State Forest

HCVF Summary

Diverse array of interconnected wetlands and lakes with patchwork of intact upland forests on fairly rugged terrain. Tamarack swamps and rare rich fen with watertrack are present, as well as spruce, cedar and ash swamps, and spring fens.

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 2a - EBF (Intact forest block): 1,055 acres; 2d - EBF (forest block with vernal pools); yes; 3b (S1 or S2 plant community): FDc24a (62 acres), FDc34a (27 acres); 3c (Special S3 plant community): FDn33a1 (45 acres), FPn63b (48 acres), FPn63c; 3d (Natural origin pine stand): 81 acred of red and jack pine.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain current mix of cover types across HCVF; look for opportunities to promote older growth stages. - Actively manage rare plant communities to maintain, enhance, and increase where necessary; verify subtypes. - Maintain intact nature of forest block. - Verify FPn63c (S3). - Verify natural origin pine. - Consult latest BMP recommendations for vernal pools.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP. MFRC riparian scientific report.

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.

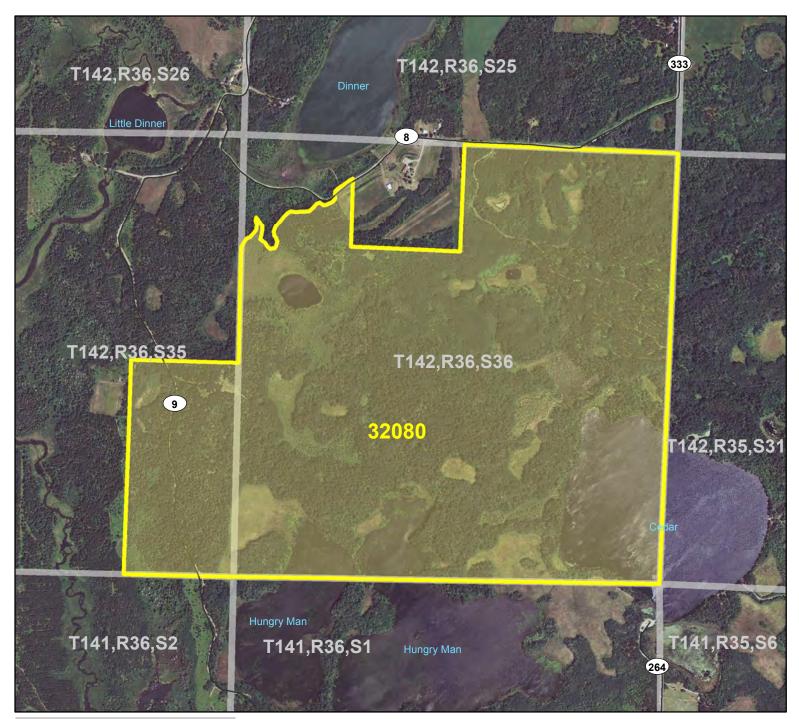
HCV 2a, 2d, 3b, 3c, 3d. Rare NPCs likely extend onto adjacent private and industry lands.

General Comments

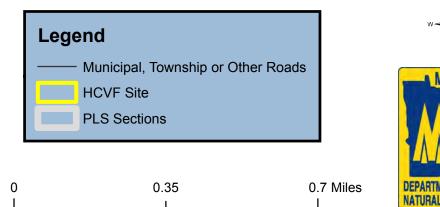
Managment needs to be coordinated especially for the rare NPCs and to maintain the forest block. Hydrology should be evaluated to determine if management could be coordinated.

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.

HCVF Site 32080 Hungry Man, Becker County



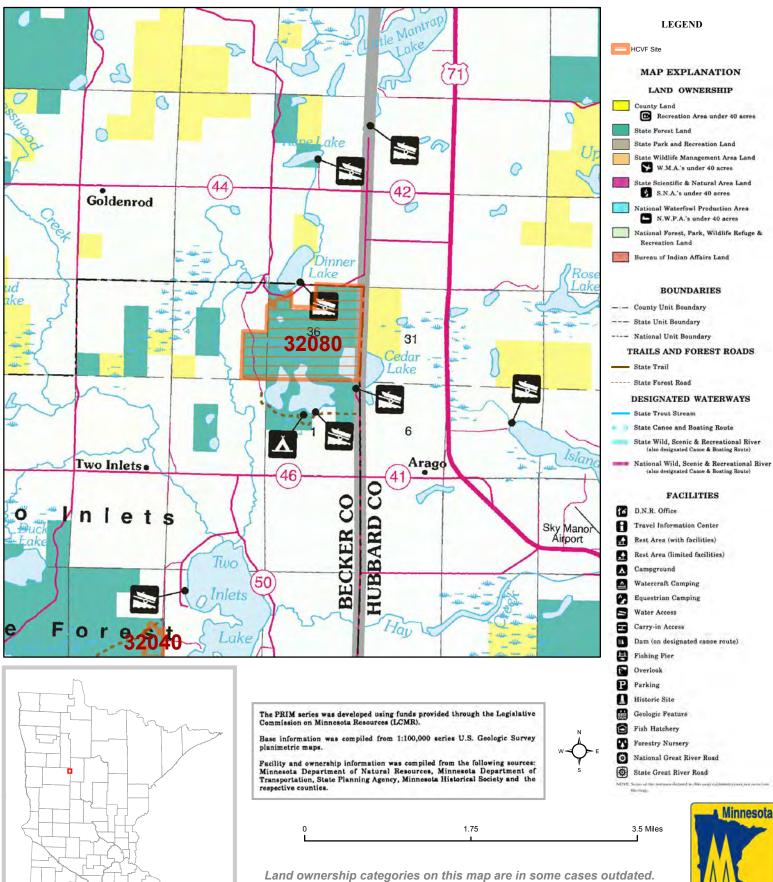








HCVF Site 32080 Hungry Man, Becker County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 32080 HCVF Name: Hungry Man Acres of HCVF site: 648.60 County: Becker

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Two Inlets State Forest

HCVF Summary

Rugged terrain with large patches of rich spruce swamp, old growth pine (FDc34a), jack pine woodland (FDc23a, FDc24a), diverse high-quality forested and non-forested wetland communities, and mesic hardwood forest. Several rare species and extensive undeveloped lakeshores. One of most important sites in Pine Moraines & Outwash Plains Subsection.

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1b (S1 or S2 species): 1 orchid; 2b - EBF (forest block in ag. landscape): yes; 3a (G1 or G2 plant community): FDc23a (79 acres); 3b (S1 or S2 plant community): FDc23a (79 acres), FDc24a (11 acres), FDc34a (128 acres); 3c (Special S3 plant community): FDc34b (61 acres); 3d (Natural origin pine stand): 186 acres; 3e (Old-growth forest): 83 acres of red pine.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain or enhance the conifer swamp communities for the rare plant(verify the NPC); minimize changes in hydrologic regime. - Maintain current mix of cover types and age classes across HCVF. - Actively manage rare plant communities to maintain, enhance, and increase where necessary. - Maintain intact nature of the forest block. - Manage to maintain or promote older growth stages.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP

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.

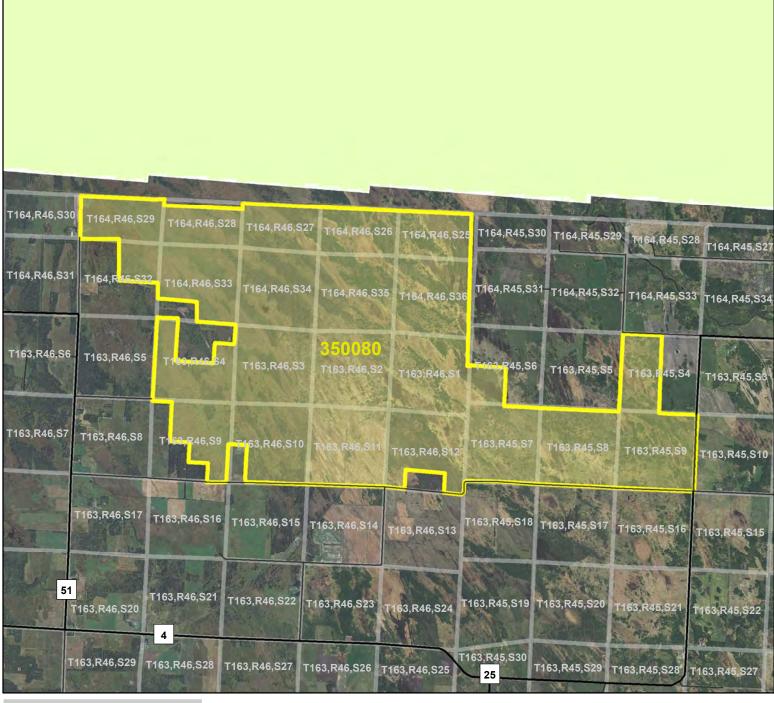
HCV 1b, 2b, 3a, 3b, 3c, 3d. Rare species and NPCs likely extend onto adjacent private, county managed and industry lands.

General Comments

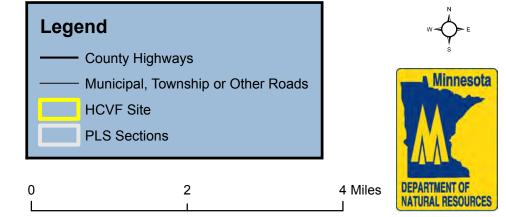
Management needs to be coordinated especially for the rare NPCs. The largest known extent of FDc23a nd FDc24a occurs in this area.

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.

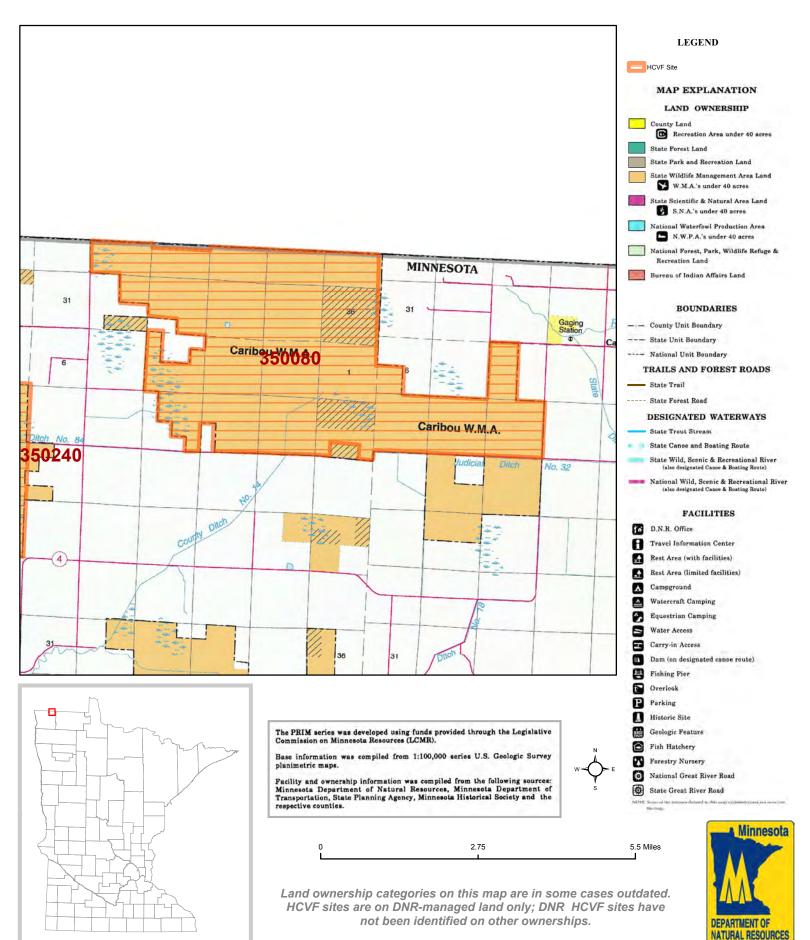
HCVF Site 350080 Caribou Parkland, Kittson County







HCVF Site 350080 Caribou Parkland, Kittson County



Report Run: September 3, 2013

General Information

HCVF #: 350080 HCVF Name: Caribou Parkland Acres of HCVF site: 11278.85 County: Kittson

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Caribou WMA

HCVF Summary

It is a vast expanse of mostly wet and wet-mesic aspen parkland, with a linear NW-SE trending pattern of brush- and woodland-dominated ridges and wet brush-prairie and wetland dominated swales. This gives way to mainly woodland at the west end, with large open fens embedded in it. Despite some areas that were plowed at some point, most is in fairly good natural condition. It is one of the best remaining examples of aspen parkland landscape.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1a (G1 or G2 species): 1 butterfly; 1b (S1 or S2 species): 1 bird, 1 butterfly; 1e (Rare species concentration): birds; 1f (Taxonomic group concentration): birds; 1g (Examples of outstanding key habitats): Wetland - non-forest, shrub/woodland-upland; 2a - TAP (large natural vegetation complex): 11,279 ac; 3a (G1 or G2 plant community): UPn23a (73 ac); 3b (S1 or S2 plant community): UPn23a (73 ac), MRp93 (58 ac); 3c (Special S3 plant community): OPp91b (565 ac), WMp73a (278 ac); 3g (Potential roadless area).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Burn or hay areas where butterfly is known or likely; time management activities and size of units to minimize negative impacts to the butterfly. - Reduce non-prairie communities adjacent to known or likely butterfly populations. - Encourage suitable breading and nesting habitat (wet prairie/fen/meadow areas with minimal shrub cover) for the rare bird species. - Minimize active management such as logging and hydroaxing during the nesting and growing seasons. - Minimize hydrologic disturbance; restore ditched areas where possible. - Verify potential roadless area.

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

2011 Aspen Parklands SFRMP. Caribou Wildlife Management Area Habitat Management Report.

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.

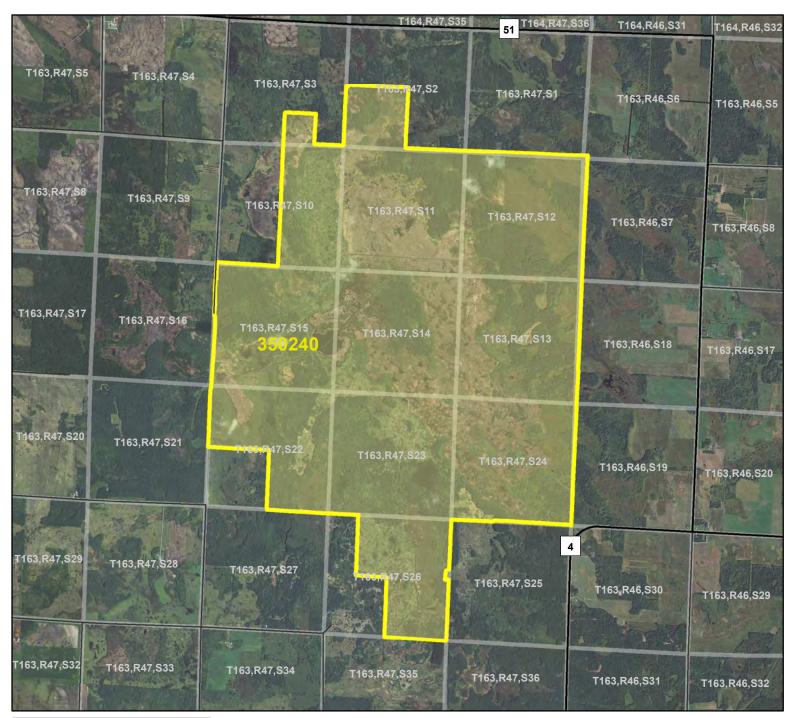
HCV 1a, 1b, 1e, 1f, 1g, 2a, 3a, 3b, 3c. Rare species, S2 and S3 NPCs extend onto adjacent private and Nature Conservancy property.

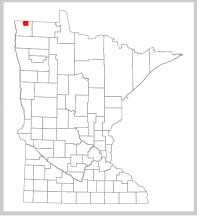
General Comments

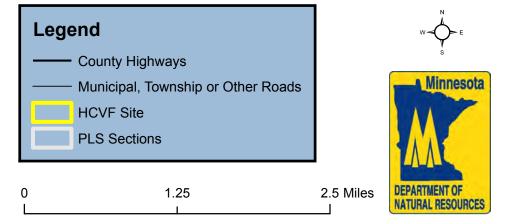
Multiple rare plants and NPCs documented across this HCVF boundary. The majority of SGCNs documented are along the southern and central portion of HCVF. Hydrology should be evaluated to determine if management could be coordinated in that regard. Winter access to manage the aspen. Continue the hydro-axing on the ridges. Some of the land is Trust, but management would not be different because of this status.

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.

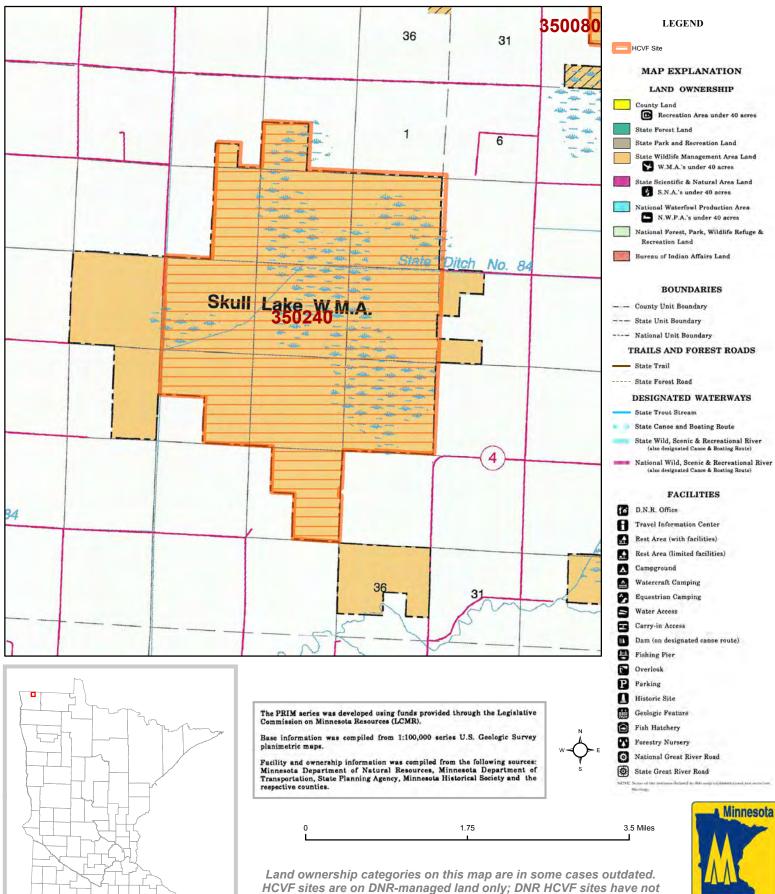
HCVF Site 350240 Skull Lake Main, Kittson County







HCVF Site 350240 Skull Lake Main, Kittson County



been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 350240 HCVF Name: Skull Lake Main Acres of HCVF site: 5897.14 County: Kittson

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Skull Lake WMA

HCVF Summary

Unique large sand dunes area. Outstanding example of sand prairie and savanna. Large site includes a fairly complex mosaic of wetlands and sandy uplands. The most distinctive feature is a skein of low, rolling sand blankets that is draped across the site. Most of this supports a shrubby variant of dry prairie barrens subtype, dotted with small wetland depressions. A few concentrations of small bur oak trees create savanna patches. The little depressional wetlands typically have a wet meadow center ringed by shrub willows and often aspen. In a few areas tree and shrub encroachment into the prairie is a serious problem. Overall, the condition of the prairie is good, with numerous vehicle trails the only serious disturbance, although there is one long, narrow band (with the only high dune forms present in the area) that appears to have had a history of heavy grazing (sheep?) and is now dominated by exotic cool-season grasses. Where conditions are not so dry, brushland/woodland occupies the upland. This was probably originally mesic brush prairie, but reduction of fire frequency has allowed aspen to greatly increase. Probably, past grazing also contributed to the change. This brushland/woodland ranges from a tall shrub community dominated by hazel, saskatoon, and small aspen, to dense woodland of mature aspen. Some of this has fairly good potential for restoration to brush prairie with an aggressive fire-management program. There is a very extensive wetland northeast of the band of dunes (probably a deflation basin where the sand in the dunes came from), and a number of smaller ones. Open graminoid communities, fen, meadow, and marsh dominate, with shrubby areas common, and there are also some good-size shrub swamps. A state ditch crosses the big wetland, and there is a water control structure on this that has flooded part of the wetland, converting it to a Typha marsh. There is also a mile-long low dike across the wetland paralleling the ditch, but the impact of this on the hydrology of this wetland isn't apparent. Many small dugouts are concentrated in a couple of areas. (Only site in section with UPn12a.)

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 1 butterfly, 2 plants; 1e (Rare species concentration): 15 birds; 1g (Examples of outstanding key Habitats): Shrub/woodland - Upland, Prairie, wetland-non-forest; 2a - TAP (large natural vegetation complex): yes, 5,897 acres; 3a (G1 or G2 plant community): UPn12a (815 acres), WMp73a; 3b (S1 or S2 plant community): UPn12a (815 acres), UPn12b, UPn24b (32 acres), MRp93 (58 acres); 3c (special S3 plant community): WMp73a, WPn53b; 3g (Potential roadless area).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Use less intensive methods to manage native praire and reduce tree and shrub encroachment, such as mowing or prescribed burning in smaller units on a rotational basis, for rare species. - Protect sand dunes, remove non-native vegetation, and prohibit vehicle traffic. - Maintain/enhance the landscape complex of Brushland habitats and their associated native plant communities. Verify the FDw24 subtype. Verify MRp93 and its size. - Discriminate against aspen in designated stands. - Fire can be a viable method to promote the above objectives. - Avoid any operations that may compromise the natural hydrology of this system. Eliminate the ditch and restore lost hydrologic function. - Avoid establishment of new roads, use existing roads, trails and landings as much as possible, and treat new access routes as temporary. - Maintain the roadless area.

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

2011 Aspen Parklands SFRMP

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.

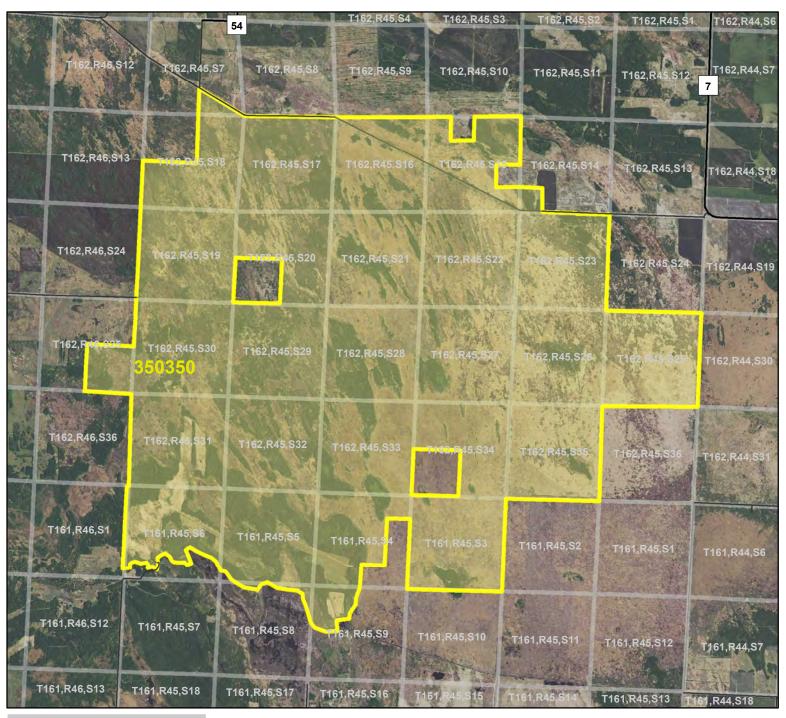
HCV 1b, 1e, 1g, 2a. 3a, 3b, 3c, 3g. The rare species, NPCs and key habitats extend onto adjacent private and The Nature Conservancy lands. The hydrology is effected by some of the private landowners.

General Comments

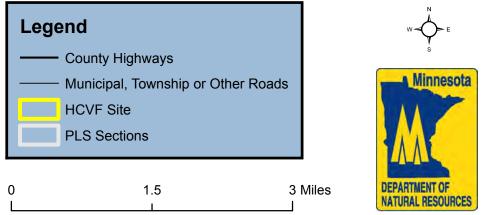
No information entered.

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.

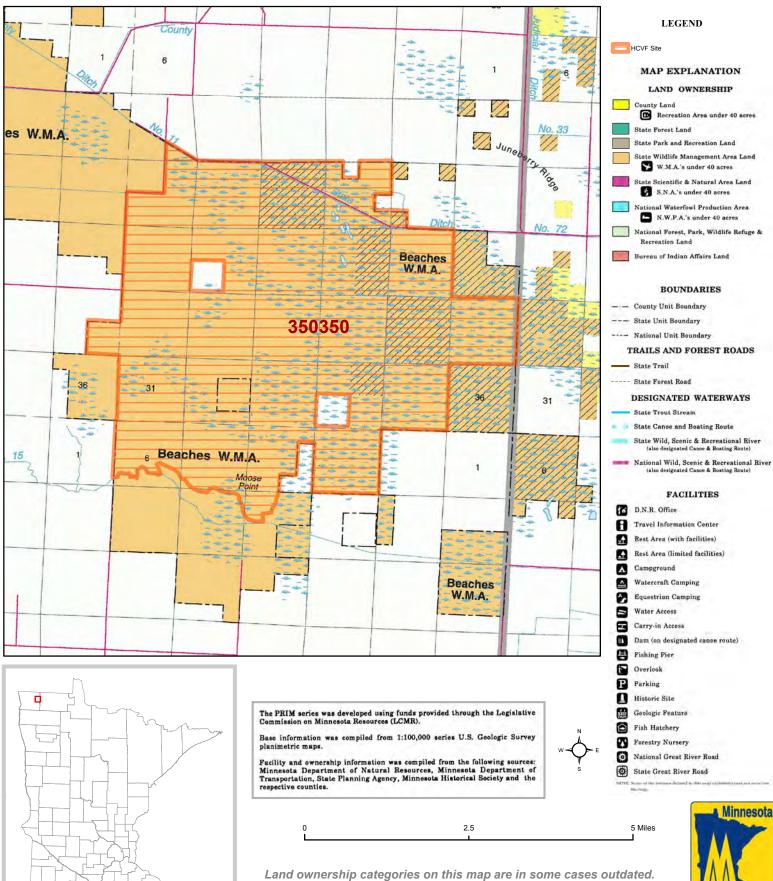
HCVF Site 350350 Beaches Lake, Kittson County







HCVF Site 350350 Beaches Lake, Kittson County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 350350 HCVF Name: Beaches Lake Acres of HCVF site: 15053.44 County: Kittson

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Beaches WMA

HCVF Summary

Landscape scale of aspen parklands mosaic with large rich fens, shrub swamps, marsh, sandy pools on mineral substrate, and wet aspen woods in wetter areas. Areas of mineral soils ridges with areas of mesic to wet brush prairie. Oak savanna areas.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 1 bird, 1 plant; 1e (Rare species concentration): birds, plants; 1f (Taxonomic group concentration): 18 birds; 1g (Examples of outstanding key habitats): Wetland-Nonforest (Wet prairie); 2a - TAP (Large natural vegetation complex): 15,054 acres; 3a (G1 or G2 plant community): UPn12c (118 acres); 3b (S1 or S2 plant community): UPn12c (118 acres); 3c (Special S3 plant community): OPp91b, WMp73a.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain/enhance the landscape complex of brushland and openland habitats and their associated native plant communities. - Maintain and protect localized habitat; especially providing for short vegetation in or adjacent to shallow pools of open water. - Maintain and enhance the rare plant communities. Verify potential UPn12b. - Reduce shrub density in wetlands, especially sedge meadows. - Discriminate against aspen, - Fire can be a viable method to promote the above objectives. - Validate occurance and location of SGCNs and S1/S2 spp. - Avoid any operations that may compromise the natural hydrology or water levels of this system.

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

2011 Aspen Parklands SFRMP.

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.

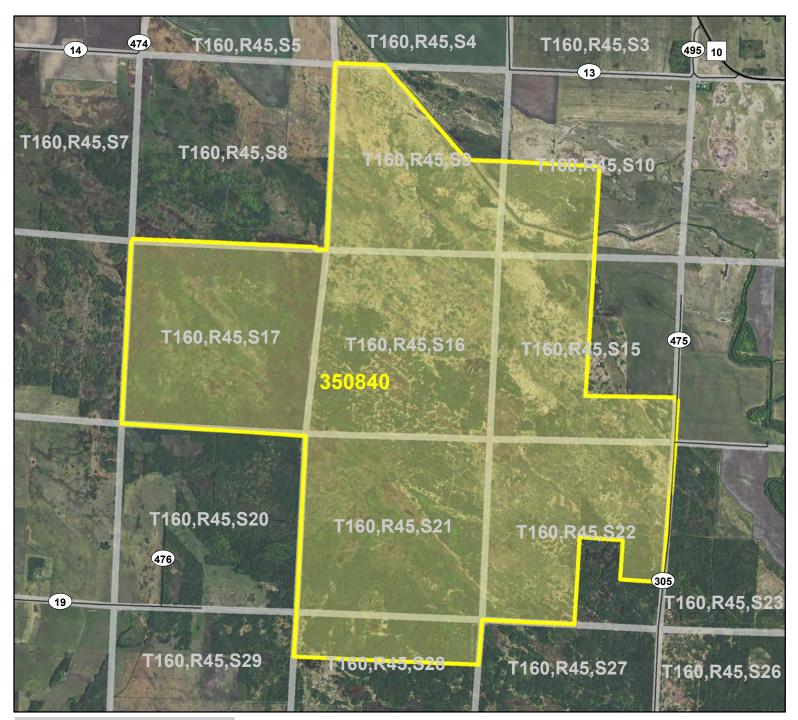
HCV 1b, 1e, 1f, 1g, 2a, 3a. Multiple rare species, NPCs, and SGCNs extend onto adjacent private, The Nature Conservancy, and industrial lands.

General Comments

No information entered.

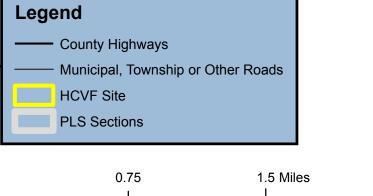
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 350840 Pelan Parkland, Kittson County





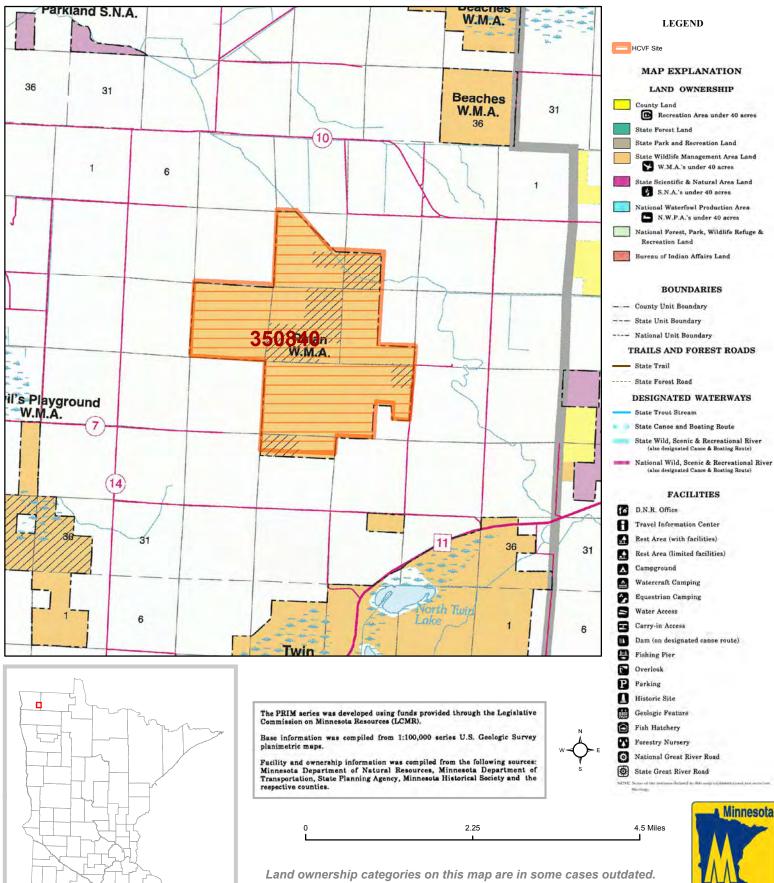
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HCVF Site 350840 Pelan Parkland, Kittson County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 350840 HCVF Name: Pelan Parkland Acres of HCVF site: 3672.45 County: Kittson

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Pelan WMA

HCVF Summary

MBS Site 84 is the core of a landscape-scale macrosite, and includes all of the Pelan WMA at the time of survey, plus some trust land and private tracts. It is nearly level, with a subtle pattern of NW-trending linear swell-and-swale topography. Although parts have been degraded by grazing (some still occurring at the time of the survey), overall it is a high-quality, very large remnant of an aspen-parkland mosaic of brush-prairie, woodland, and wetland. The brush-prairie is wet and wet-mesic, with some mesic places (these are the most degraded spots). The woodland is aspen woodland, primarily young trees and saplings, but bur oaks are not uncommon, with occasional open-grown individuals of moderate size. The woodland occurs mostly as small patches in a brush-prairie matrix. There is one area of slightly different character where the woodland patches predominate that is continuous with a similar area on the next site south within the macrosite. The wetland component is predominantly wet meadow, sometimes tending to rich fen. These wetlands occur as small to medium size patches. Site 82 is south end of large expanse of aspen parkland, all private. Some well-developed woodland, becoming forest, large area of an intricate mosaic of aspen woodland and prairie that is predominantly woodland, and large area that is predominantly brush-prairie with lesser amounts of scattered woodland. Low relief, with subtle NW-trending swell-and-swale topography.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1a (G1 or G2 species): 1 butterfly; 1b (S1 or S2 species): 1 butterfly; 1g (Examples of outstanding key habitats): Shrub/Woodland-Upland (Brush prairie), Wetland-Nonforest (Wet Prairie); 2a - TAP (large natural vegetation complex): yes, 3,672 acres; 3a (G1 or G2 plant community): UPn23a; 3b (S1 or S2 plant community): UPn23a; 3c (Special S3 plant community): FDw44a, WMp73a, WPn53b.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Use less intensive methods to manage native praire and reduce tree and shrub encroachment, such as prescribed burning in smaller units on a rotational basis to maintain and enhance the Endangered butterfly and its habitat. - Maintain/enhance the landscape complex of brushland and openland habitats and their associated native plant communities. - Verify the sizes of all rare NPCs. Manage them with fire, where possible.

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

2011 Aspen Parklands SFRMP

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.

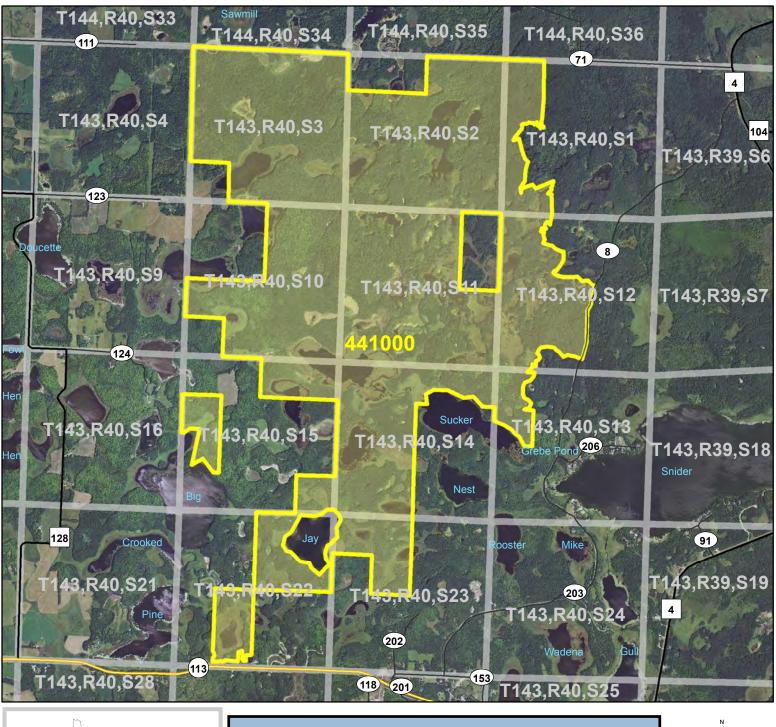
HCV 1a, 1b, 1g, 2a, 3a, 3b, 3c. The rare butterfly, special concern plants and key habitats for SGCNs extend onto adjacent Federal and private lands.

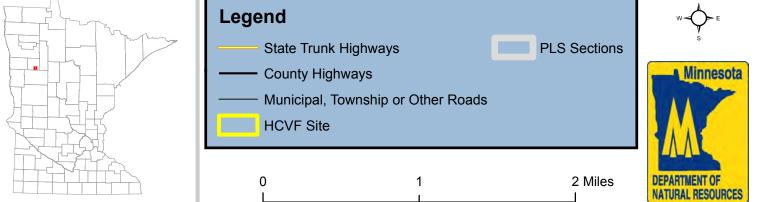
General Comments

No information entered.

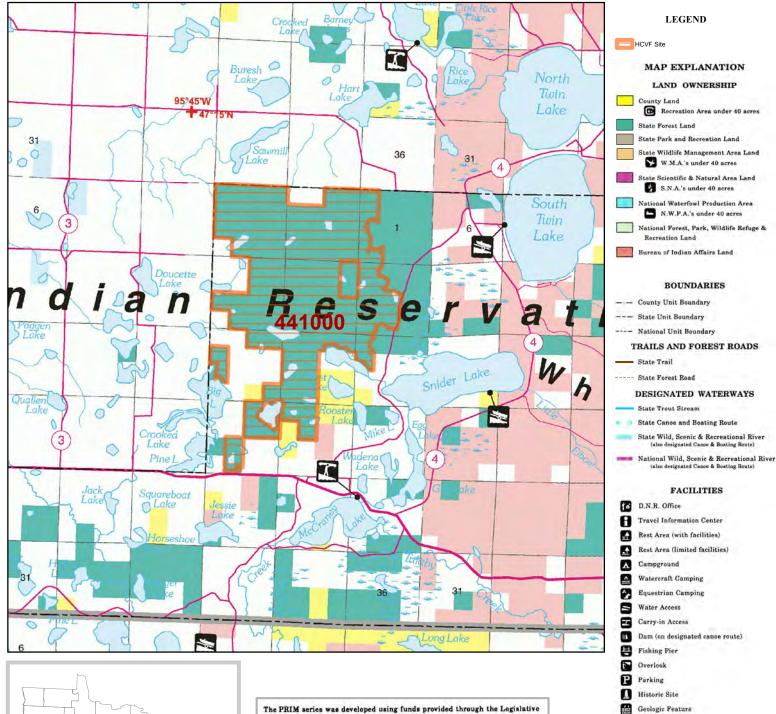
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 441000 Oakland Woods, Mahnomen County





HCVF Site 441000 Oakland Woods, Mahnomen 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.



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.



Fish Hatchery

Forestry Nursery

O National Great River Road

State Great River Road

Report Run: September 3, 2013

General Information

HCVF #: 441000 HCVF Name: Oakland Woods Acres of HCVF site: 3461.43 County: Mahnomen

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** White Earth State Forest

HCVF Summary

Largest block of older growth mixed mesic hardwoods in county at time of survey. Nearly four square miles of forest in a block transected only by snowmobile trail. Dominated by oaks, aspen, maple, basswood with mature elm. Best mature mesic hardwoods are in sections 3 and 10, grades into aspen in east and south. Logging in east side of section 2. High priority forest site in county. 419 acres of designated OG in two large blocks (mostly MHc37b). Most important site in 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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1g (Examples of Outstanding Key Habitats): Forest-Upland Deciduous (Hardwood), Wetland-Nonforest; 2a - EBF (intact forest block): 3,461 acres, primarily lowland hardwoods, aspen, and northern hardwoods; 2b - EBF (old forest): 1,128 acres, lowland and northern hardwoods, throughout northern portion; 2c - EBF (forest block in ag. landscape): 3,461 acres of just state lands; 2d - EBF (forest block with vernal pools): yes; 3a (G1 or G2 plant community): FPs63a (53 acres); 3b (S1 or S2 plant community): FPs63a (53 acres); 3c (Special S3 plant community): FDc34b (76 acres); 3e (Oldgrowth forest): ash, lowland hardwoods, northern hardwoods (419 acres minimum).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain the diverse ground layer. - Maintain continuous canopy and develop uneven-aged stands. - Actively manage and maintain the rare plant communities. - Manage to maintain or promote older growth stages. - Verify the amount of old growth, SMZ and OFMC. - Consult latest BMP recommendations for vernal pools.

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

2012 Hardwood Hills SFRMP. MFRC riparian scientific report.

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.

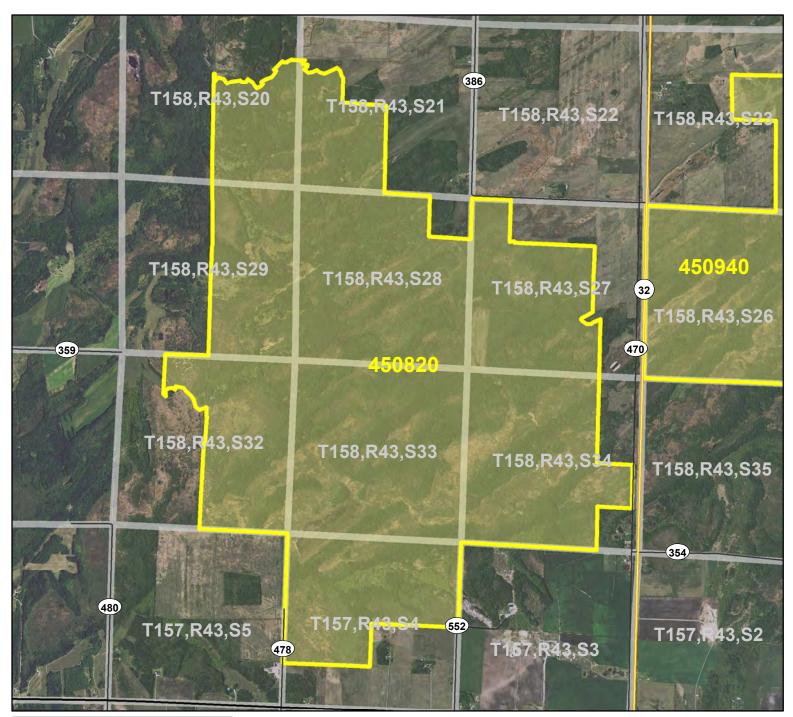
HCV 1g, 2a, 2b, 2c, 2d, 3a, 3b, 3c, 3e. HCVs extend onto Mahnomen county, tribal, and private lands.

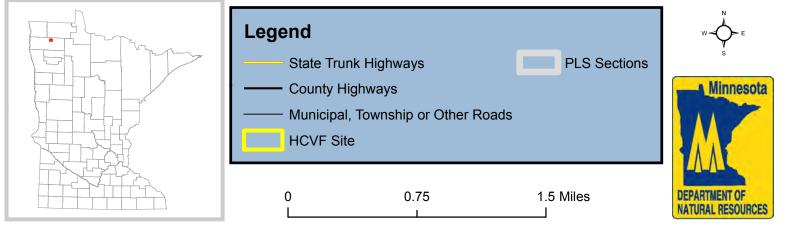
General Comments

No information entered.

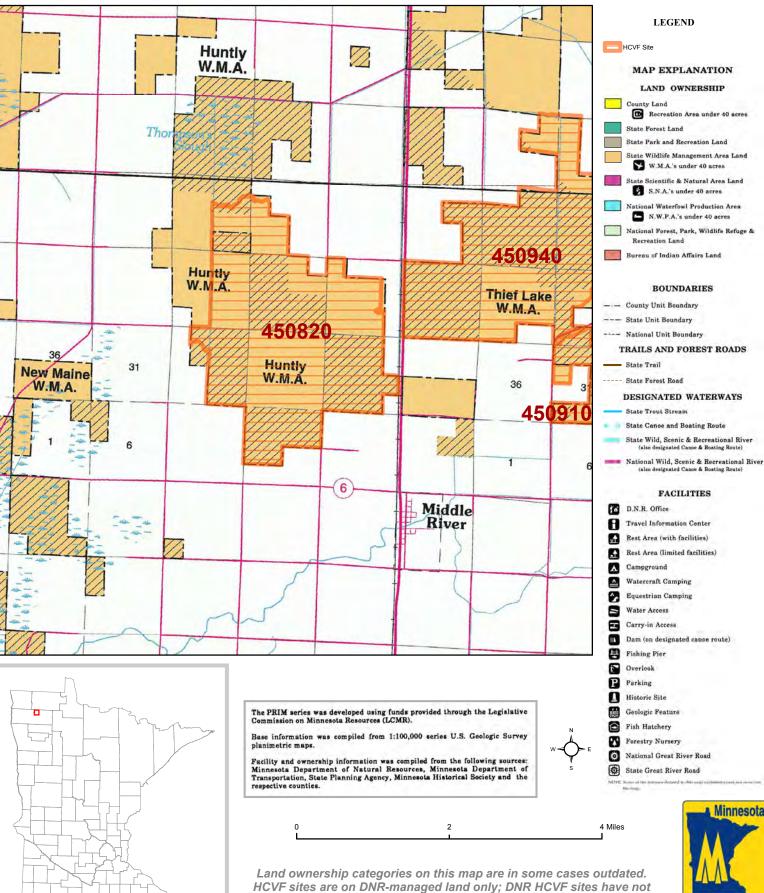
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 450820 Huntly 23, Marshall County





HCVF Site 450820 Huntly 23, Marshall County



been identified on other ownerships.

Minnesota DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 450820 HCVF Name: Huntly 23 Acres of HCVF site: 3667.17 County: Marshall

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Huntly WMA

HCVF Summary

Site mainly variable age aspen woodland with some areas of oak, some sedge meadow. Data mainly from shrub wetland, aspen woodland. Sedge meadow in E section 29 needs survey, maybe more survey of reputed opening near SESE section 33. Large natural red pine in NE section 4 along old trail in dry opening. (Red pine stand not apparent on recent air photos).

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1g (Examples of outstanding key habitats): prairie, wetland-nonforest (wet prairie); 2a - TAP (large natural vegetation complex): yes, 3,667 acres; 3a (G1 or G2 plant community): UPn23a (11 acres); 3b (S1 or S2 plant community): UPn23a (11 acres); 3g (Potential roadless area): yes.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain/enhance the landscape complex of brushland habitats and their associated native plant communities. - Actively manage rare NPCs and key habitats to maintain, enhance, and increase where necessary. - Discriminate against aspen, - Fire can be a viable method to promote the above objectives - Avoid establishment of new roads, use existing roads, trails and landings as much as possible, and treat new access routes as temporary.

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

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.

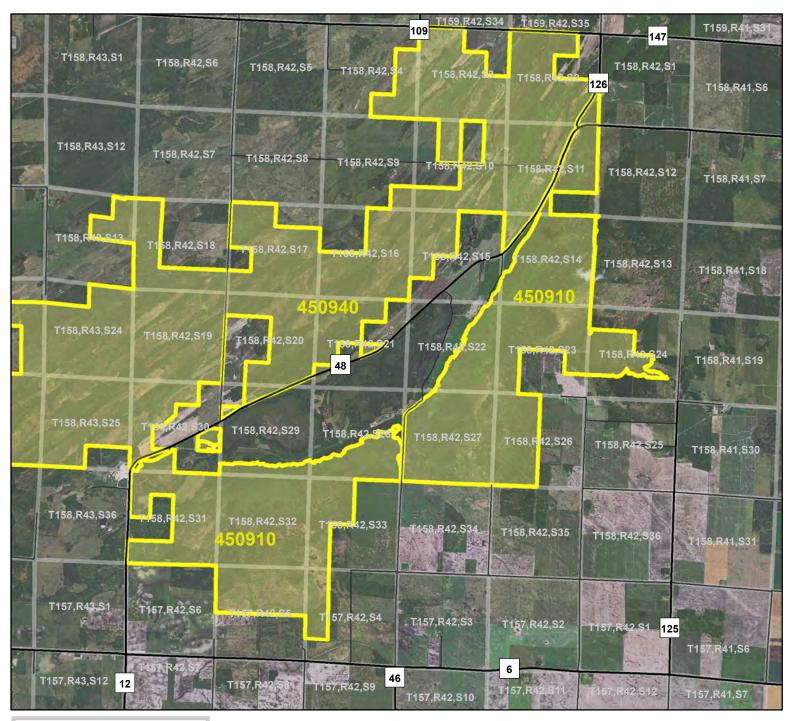
HCV 1g, 2a, 3a, 3b, 3g. Multiple rare NPCs and key habitats extend onto adjacent private lands.

General Comments

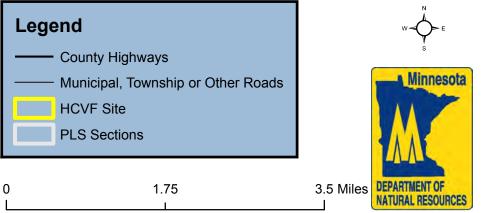
There could be future conflicts due to some of this site being underlain with gravel and much of it Trust.

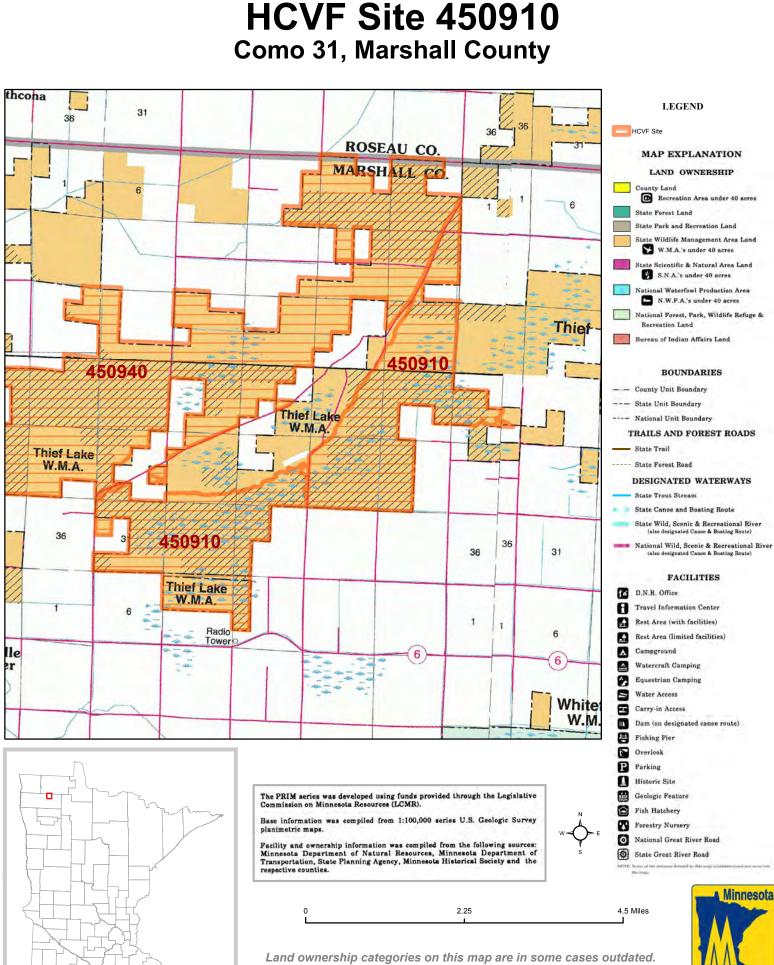
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 450910 Como 31, Marshall County









HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 450910 HCVF Name: Como 31 Acres of HCVF site: 4859.63 County: Marshall

Data edited by: Becky Marty, Erik Thorson, Mike Locke **Role:** NW Reg HCVF Team Forestry, EWR, and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Thief Lake WMA

HCVF Summary

Complex of oak and wetlands along Dorman Ridge, mostly state owned. Some wildlife food plots. Fens bordered by zones of conifers.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1e (Rare species concentrations): 18 birds; 1g (Examples of outstanding key habitats): prairie, shrub/woodland-upland (brush prairie), wetland-nonforest (wet prairie); 2a TAP (large natural vegetation complex): 4,860 acres; 2bii (forest block in ag landscape): yes; 3a (G1 or G2 plant community): UPn13c (17 acres); 3b (S1 or S2 plant community): FDw24a (5 acres), UPn12b (26 acres); 3c (Special S3 plant community): FPw63a (64 acres), OPp91 (700 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain/enhance the landscape complex of brushland habitats and their associated native plant communities. - Maintain diverse ground cover; maintain and protect localized habitat. - Verify rare species and protect habitat; conduct SGCN analysis for habitat needs. - Actively manage rare key habitats and plant communities to maintain, enhance, and increase where necessary. - Fire can be a viable method to promote the above objectives. - Restore habitats and hydrology where necessary.

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

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.

HCV 1e, 1g, 2a, 2bii, 3a, 3b, 3c. Multiple rare species, NPCs, and SGCN extend onto adjacent private lands.

General Comments

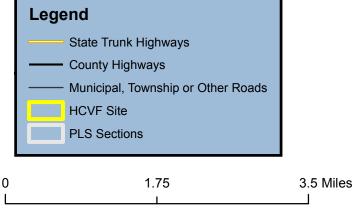
There could be some future conflicts due to some of this site being underlain with gravel and much of it Trust.

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.

HCVF Site 450940 Como 20, Marshall County

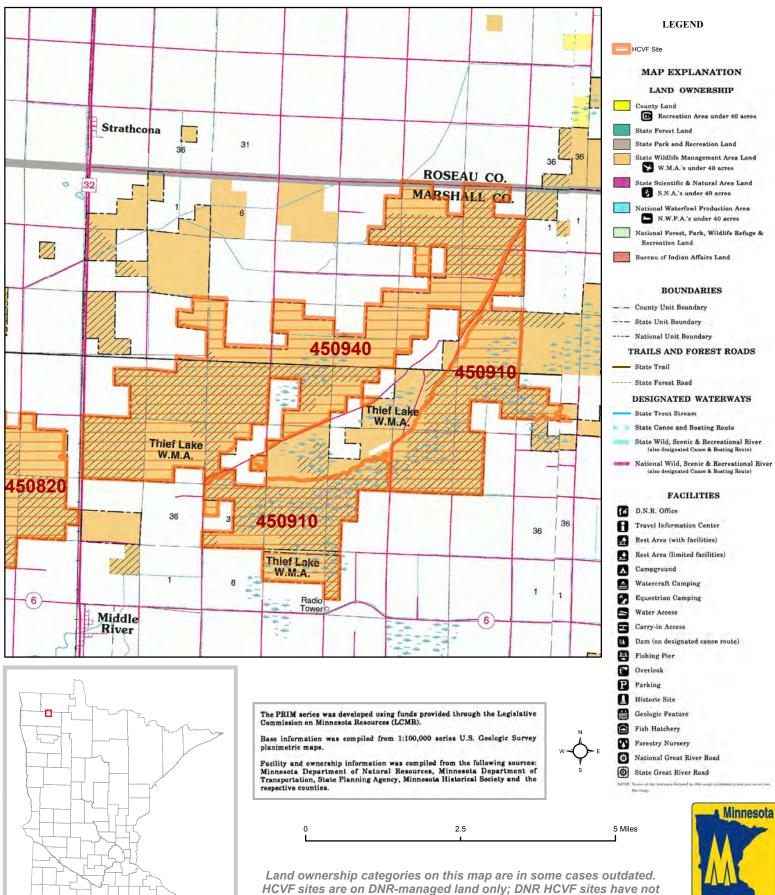
T159,R43,S27	T159,R43,S26	T159,R43,S25	T159,R42,S30	T159,R42,S29	T159,R42,S28	T159,R42,S27	T159,R42,S26	T159,R42,S25
T159,R43,S34	70 T159,R43,S35	T159,R43,S36	T159,R42,S31	T159,R42,S32	T159,R42,S33	09 7159,R42,S34	T159,R42,S35	T159,R42,S36
T158,R43,S3	T158,R43,S2	T158,R43,S1	108 T158,R42,S6	T158,R42,S5	T158,R42,84	T158,R42, S 3	147 T158,R42,S2	T158,R42,S1
T158,R43,S10	T158,R43,S11	T158,R43,S12	T158,R42,S7	T158,R42,S8	T158,R42,S9	T1 58,R 42,S10	T158,R42,S11	T158,R42,S12
T158,R43,S15	T158,R43,S14	T158,R43,S13	T158,R42,S18		T158,R42,S16	T199, 742, \$15	158,R42,S14	T158,R42,S13
T158,R43,S22	T158,R43.923	T158,R43,S24	T158,R42,S19	T158,R42,S20	T 199, 142, 921	T158,R42,S22	450910 T1 50,R42,S 23	T158,R 42,S 24
T158,R43,S27	2 T158,R43,S26	T158,R43,S25	T158,842,530	158,R42,S29	158,R42,S26	158,R42,S27	T158,R42,S26	T158,R42,S25
T158,R43, S34	T158,R43,S35	T158,R43,S36		158,R42,S32 T [,] 0910	1 58,R 42,S33 T	158,R42,S34. T		[158,R42, S 36
T157,R43,S3	T157 R43,S2	T157,R43,S1	1157,R42,S6 T	157,R42,S5 T	157,R42,S4 T	157,R42,S3	1157,R42,S2	T157,R42,S1







HCVF Site 450940 Como 20, Marshall County



been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 450940 HCVF Name: Como 20 Acres of HCVF site: 7215.46 County: Marshall

Data edited by: Becky Marty, Erik Thorson, Mike Locke **Role:** NW Reg HCVF Team Forestry, EWR, and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Thief Lake WMA

HCVF Summary

Bur oak savannah and openings along Dorman Ridge, falling westward into aspen woodland, meadow complex.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1e (Rare species concentrations): 18 birds; 1g (Examples of outstanding key habitats): prairie, shrub/woodland-upland (brush prairie), wetland-nonforest (wet prairie); 2a-TAP (large natural vegetation complex): 7,215 acres; 3a (G1 or G2 plant community): UPs14b; 3b (S1 or S2 plant community): FDw24a (63 acres), UPn12b (29 acres), UPs14b; 3c (Special plant community): FPw63a (51 acres), OPp91a, WFn53b (1 acres), WMs83a.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain/enhance the landscape complex of brushland habitats and their associated native plant communities. - Maintain diverse ground cover; maintain and protect localized habitat. - Verify rare species and protect habitat; conduct SGCN analysis for habitat needs. - Actively manage rare key habitats and plant communities to maintain, enhance, and increase where necessary. - Fire can be a viable method to promote the above objectives. - Verify extent of UPs14b, OPp91a and WMs83a. - Restore habitats and hydrology where necessary.

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

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.

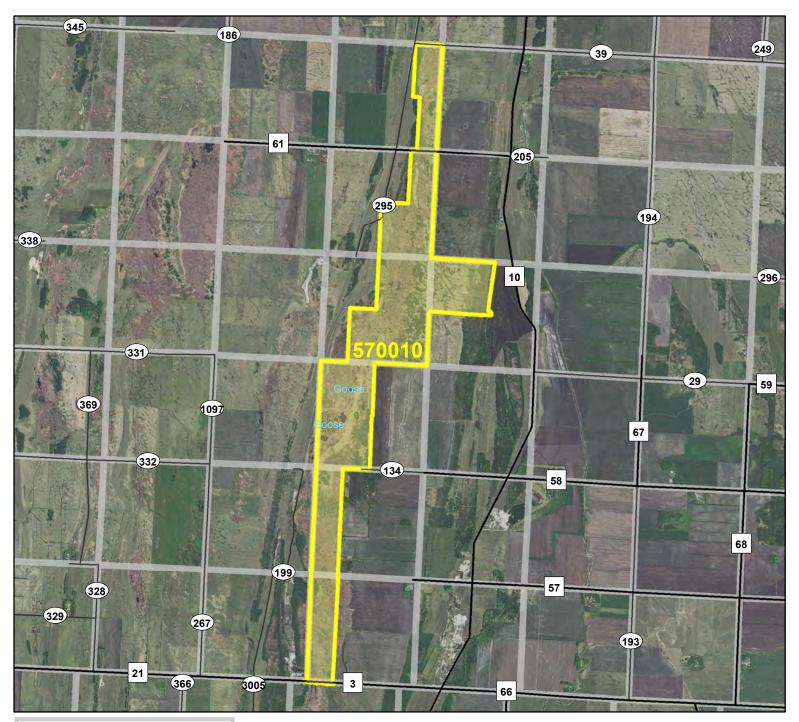
HCV 1e, 1g, 2a, 3a, 3b, and 3c. Multiple rare species, NPCs, and SGCN extend onto adjacent private lands.

General Comments

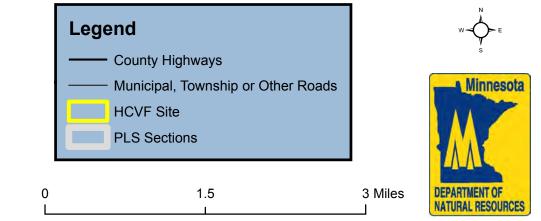
There could be some future conflicts due to some of this site being underlain with gravel and much of it Trust.

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.

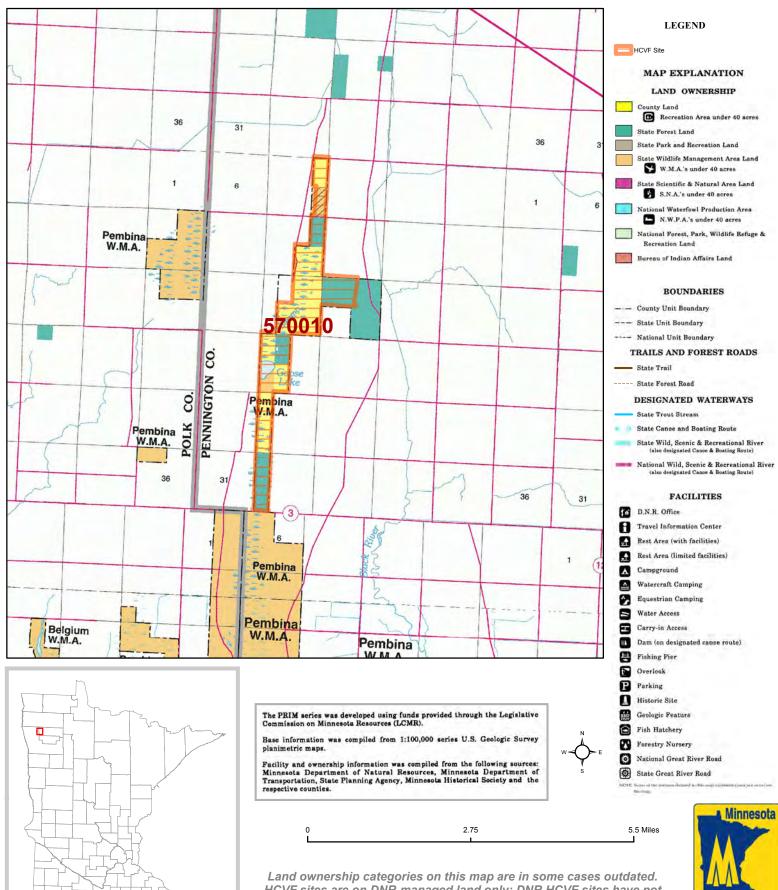
HCVF Site 570010 Goose Lake, Pennington County







HCVF Site 570010 Goose Lake, Pennington County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 570010 HCVF Name: Goose Lake Acres of HCVF site: 1601.48 County: Pennington

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Pembina WMA

HCVF Summary

Site 1: A large emergent and cattail marsh bordered by a mosaic of high-quality mesic prairie, wet prairie, and wet prairie-saline subtype communities and occasional aspen groves on gentle slopes between two glacial lake beach ridges. Aspen Parkland landscape, numerous rare spp. including Platanthera praeclara. Site abuts 57-02 to south. Platanthera praeclara population declining because lack of management; some WPn53d is invaded by aspen, other WPn53d occurs as part of complexes at this site. One EO for UPn23b is D ranked. Site 2: High importance for wetland birds! Cattail and mixed emergent marsh bordered by a mosaic of mesic, wet, and wet saline subtype prairie on shallow ridge/swale topography between two Glacial Lake Agassiz beach ridges. Excellent prairie community. Two UPn23b EOs: BC and C ranks.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 1 plant; 1c (Federal T or E species): 1 plant; 1e (Rare species concentration): 21 birds, 8 plants; 1g (Examples of outstanding key habitats): prairie, shrub/woodland - upland (brush prairie), wetland-nonforest (wet prairie); 2a -TAP (large natural vegetaion complex): 1,601 acres; 3a (G1 or G2 plant community): UPn23a (26 acres), UPn23b (379 acres), WPn53d (7 acres); 3b (S1 or S2 plant community): UPn23a (26 acres), UPn23b (379 acres), WPn53d (7 acres), MRn83 (534 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations -Maintain and protect localized habitats for T & E species by only considering dormant season burns for management. - Maintain/enhance the complex of openland habitats and their associated native plant communities. - Fire can be a viable method to promote the above objectives. - Minimize hydrologic disturbance. - Restore the ditches and natural hydrology. - Actively manage key habitats and rare plant communities to maintain, enhance, and increase where necessary to meet wetland bird needs.

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

2011 Aspen Parklands SFRMP

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

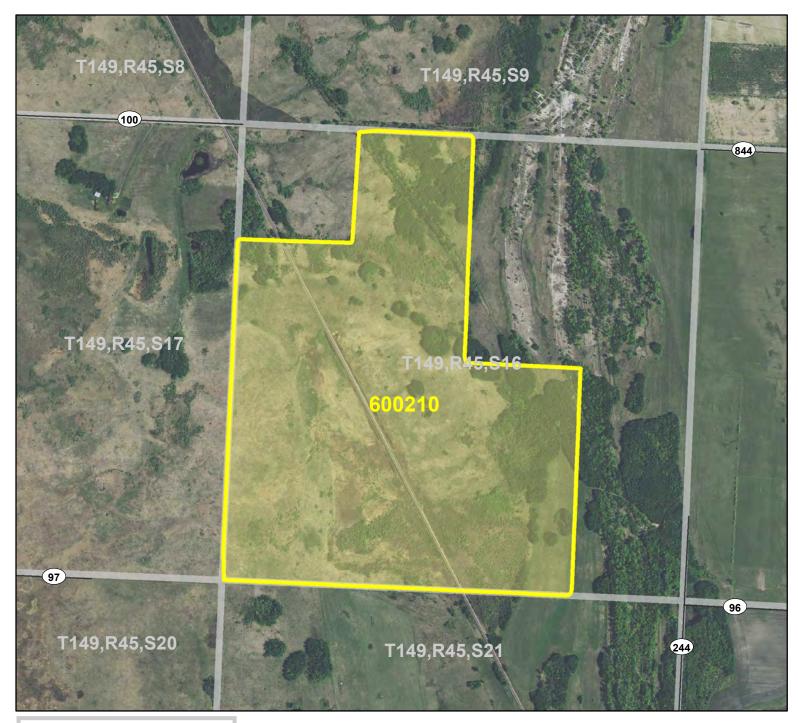
This HCVF was flagged by the Regional HCVF Team as warranting cross-ownership coordination efforts. The specific HCVs likely to benefit from such coordination with adjacent landowners are identified below. HCV 1b, 1c, 1e, 1g, 2a, 3a, 3b. Multiple rare species, NPCs, and SGCNs extend onto adjacent private lands.

General Comments

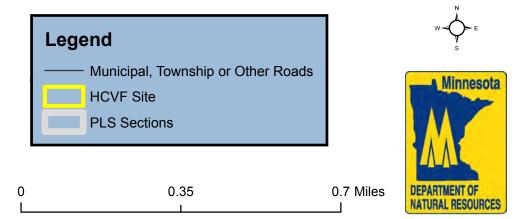
No information entered.

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.

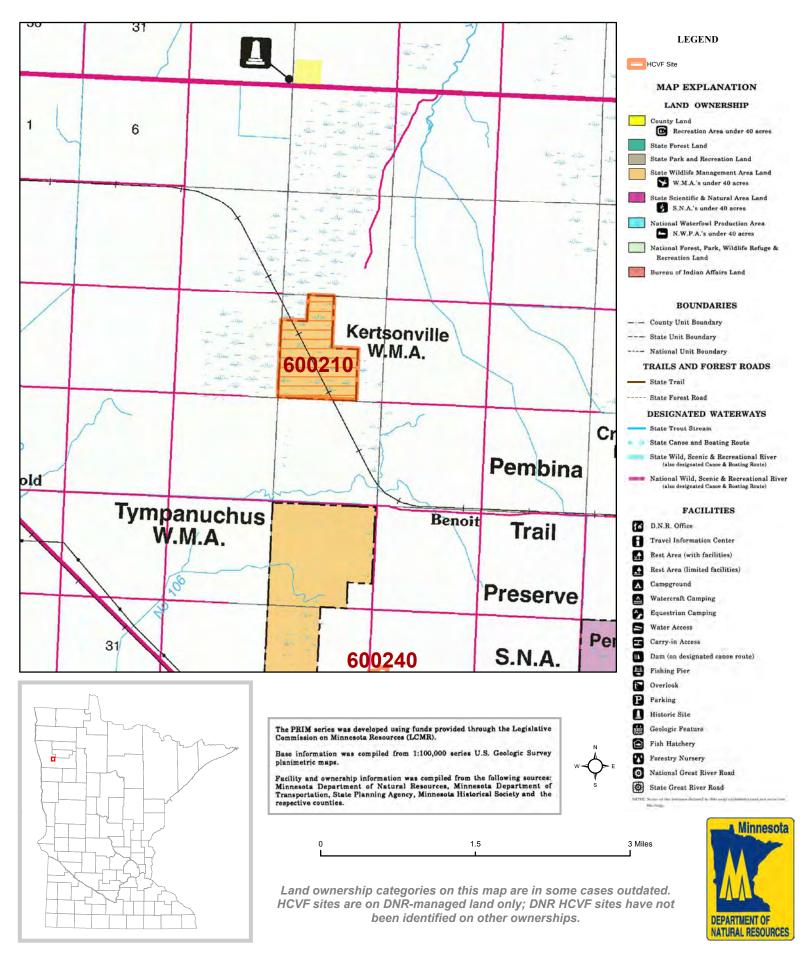
HCVF Site 600210 Kertsonville WMA, Polk County







HCVF Site 600210 Kertsonville WMA, Polk County



Report Run: September 3, 2013

General Information

HCVF #: 600210 HCVF Name: Kertsonville WMA Acres of HCVF site: 365.29 County: Polk

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Kertsonville WMA

HCVF Summary

Mosaic of wet, mesic & saline prairie west of beach ridge.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 1 bird; 1g (Examples of Outstanding Key Habitats): Prairie; 3a (G1 or G2 plant community): OPp93a (8 acres), UPn23b (12 acres), WPn53d (6 acres); 3b (S1 or S2 plant community): OPp93a (8 acres), UPn12b (4 acres), UPn23b (12 acres), WPn53a (94 acres), WPn53d (6 acres); 3c (Special S3 plant community): FDw44, WMs83a, WPn53b.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain/enhance the landscape complex of openland habitats and their associated native plant communities. - Restore the degraded upland prairie and fen communities. - Maintain and protect localized habitat; especially providing for short vegetation in or adjacent to shallow pools of open water. - Reduce shrub density in wetlands, especially sedge meadows. - Discriminate against aspen. Verify which FDw44 subtype is here. - Fire can be a viable method to promote the above objectives. - Avoid any operations that may compromise the natural hydrology of this system.

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

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.

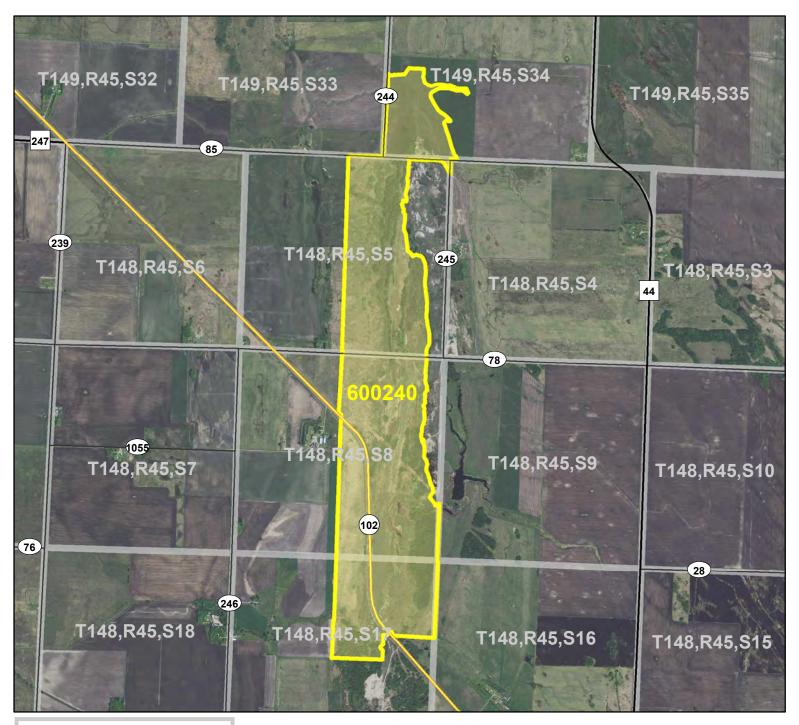
HCV 1b, 1g, 3a, 3b, 3c. The rare NPCs and multiple SGCNs extend onto adjacent private and Nature Conservancy lands.

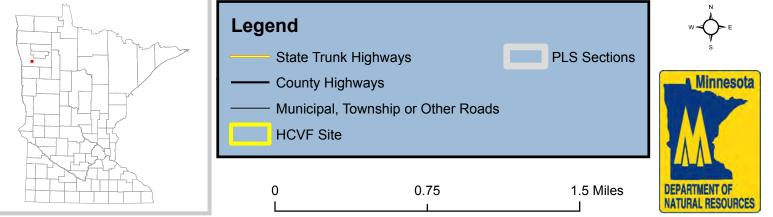
General Comments

Very nice mixed system and manageable with cooperative adjacent landowners on multiple sides.

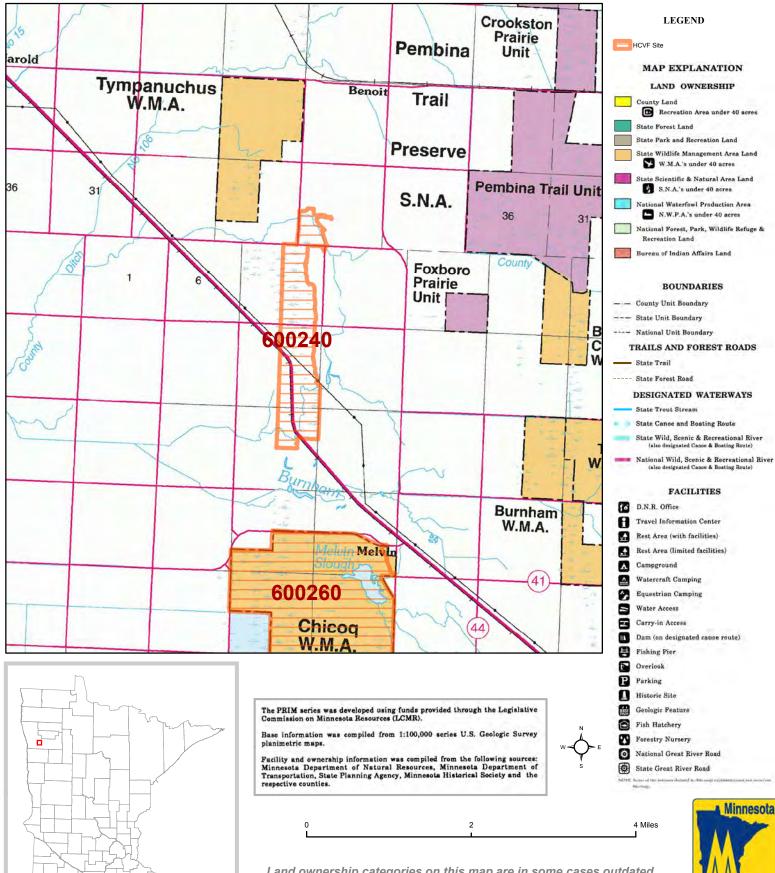
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 600240 Onstad Beach Ridges, Polk County





HCVF Site 600240 Onstad Beach Ridges, Polk County



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.



Report Run: September 3, 2013

General Information

HCVF #: 600240 HCVF Name: Onstad Beach Ridges Acres of HCVF site: 722.29 County: Polk

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Thorson Prairie WMA

HCVF Summary

Site consists of a major beach ridge, its west-facing slope, and terrain just west of the ridge. Surveyed by Robert Dana (1986) and Fred Harris (2008 and 2009). Much of site previously disturbed through hay or pasture management. Some mapped as Agassiz Interbeach Prairie Complex. Five areas of calcareous fen.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 2 plants; 3a (G1 or G2 plant community): OPp93a (7 acres), UPn23b (42 acres); 3b (S1 or S2 plant community): OPp93a (7 acres), UPn12b (53 acres), UPn23b (42 acres), WPn53a (42 acres); 3c (Special S3 plant community): FDw44, WMs83a.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Protect/restore hydrologic system; restore hydrology along the road and railroad. - Determine extent of the rare plants; actively maintain and manage the plant communities for the rare plants. - Maintain, restore, and enhance prairie and fen NPCs, esp the rare NPCs. - Use prescribed fire to control tree and shrub encroachment. - Maintain Aspen in a woodland state. - Verify FDw44 subtype.

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

2011 Aspen Parklands SFRMP. Mn DOT TH102 road plans.

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.

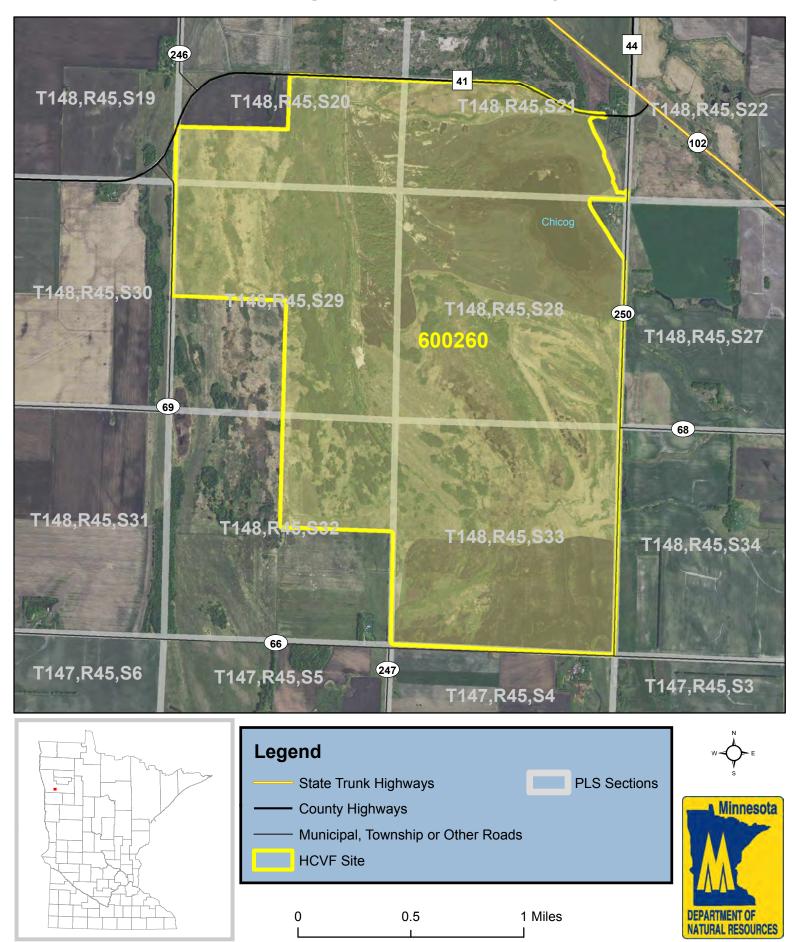
HCV 1b, 3a, 3b, 3c. The rare plants and NPCs extend onto adjacent private and Nature Conservancy lands. The hydrology is effected by the above landowners plus Mn DOT and the RR system.

General Comments

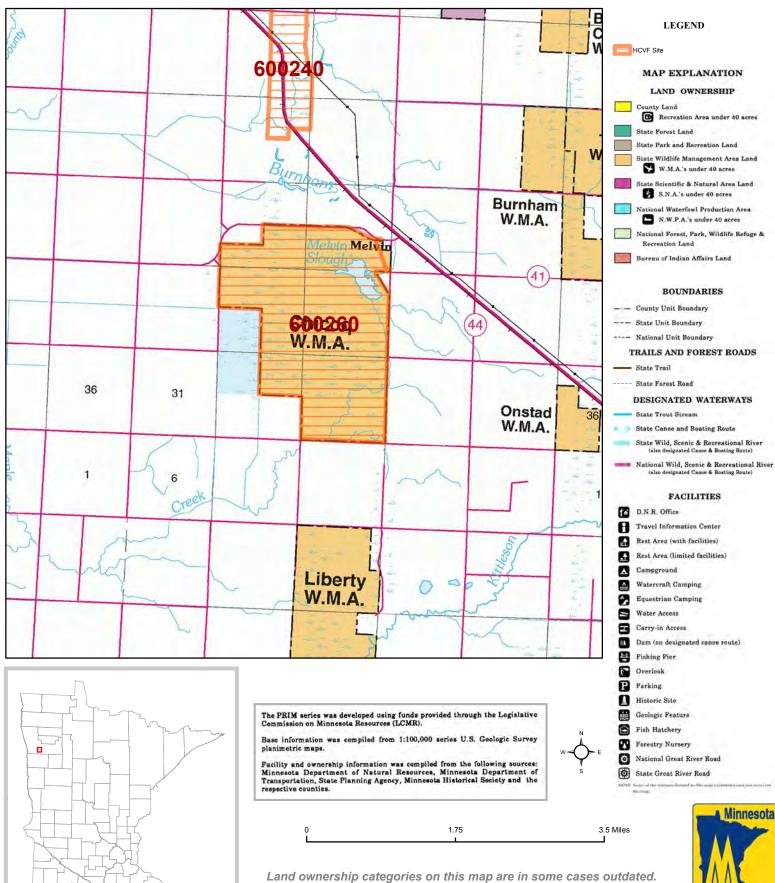
Excellent opporunities for cooperative createive management with TNC and Mn DOT.

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.

HCVF Site 600260 Chicog WMA, Polk County



HCVF Site 600260 Chicog WMA, Polk County



HCVF sites are on DNR-managed land only; DNR HCVF sites have not been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 600260 HCVF Name: Chicog WMA Acres of HCVF site: 2414.02 County: Polk

Data edited by: Becky Marty, Erik Thorson, Mike Locke **Role:** NW Reg HCVF Team Forestry, EWR, and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Chicog WMA

HCVF Summary

East: Several prairie types, calcareous fens, & wetlands on minor beach ridges and interbeach lowlands. Mostly surveyed by Robert Dana in 1986. Best dry prairie in region and one of the largest calcareous fens. Large area of saline prairie. West: mosaic of wet, mesic, & saline prairie communities bordering extensive wetlands on gradual W-facing slope W of major beach ridge. Formerly grazed. Some Agassiz Interbeach Prairie Complex. Outstanding combination of bird SGCNs.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 2 plants; 1e (Rare species concentrations): 20 birds, 10 plants; 1g (Examples of Outstanding Key Habitats): prairie, wetland-nonforest (wet prarie); 2a (Large complex of natural vegetation): 2,414 acres; 3a: (G1 or G2 plant community): OPp93a (55 acres), UPn23b (406 acres), WPn53d (31 acres); 3b (S1 or S2 plant community): OPp93a (55 acres), UPn12b (198 acres), UPn23b (406 acres), WPn53a (206 acres), WPn53d (31 acres); 3c (Special S3 plant community): WMs83a (114 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground cover; maintain and protect localized habitat. -Verify rare species and protect habitat; conduct SGCN analysis for habitat needs. - Actively manage key habitats and rare plant communities to maintain, enhance, and increase where necessary. - Maintain/enhance the landscape complex of openland habitats and their associated native plant communities. - Fire can be a viable method to promote the above objectives. - Eliminate ditching. - Minimize run off in OPn communities.

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

2011 Aspen Parklands SFRMP

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.

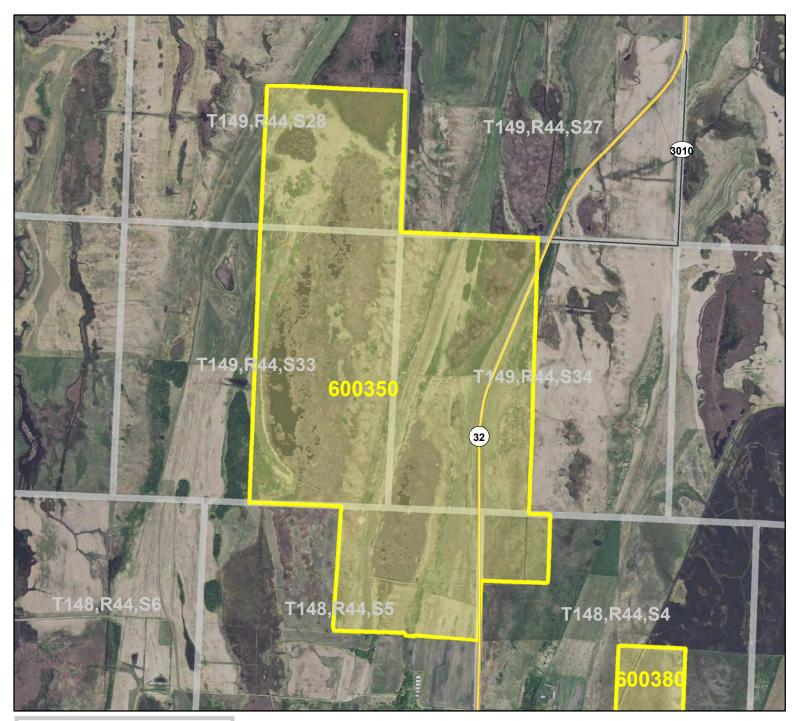
HCV 1b, 1e, 1g, 2a, 3a, 3b, and 3c. Multiple rare species, NPCs, and SGCNs extend onto adjacent private and federal lands.

General Comments

Excellent connectivity to other areas; good ability to maintain and enhance the HCVs.

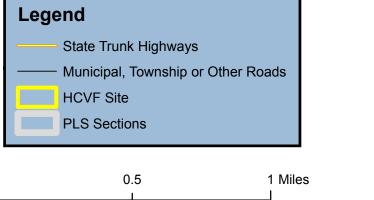
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 600350 Dugdale WMA, Polk County





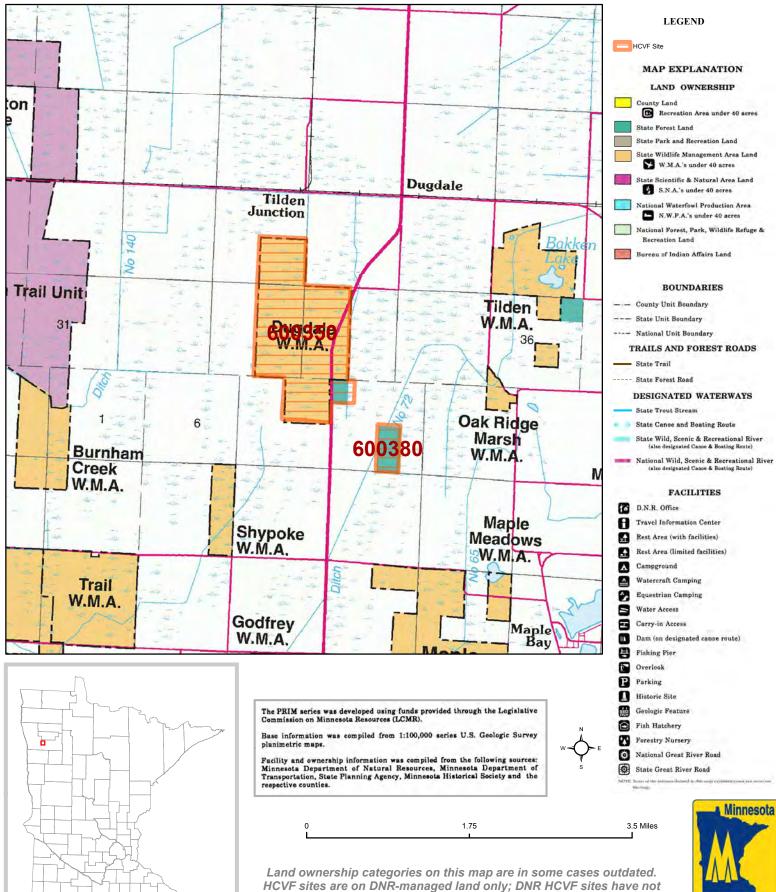
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HCVF Site 600350 Dugdale WMA, Polk County



F sites are on DNR-managed land only; DNR HCVF sites h been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 600350 HCVF Name: Dugdale WMA Acres of HCVF site: 998.35 County: Polk

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Dugdale WMA

HCVF Summary

Very high quality prairie; good examples of saline prairie, outstanding habitat for bird SGCNs, and part of Glacial Ridge NWR. Beautiful mosaic of wet, saline & mesic prairie, with extensive marshes on gradual west-facing slopes W of beach ridge. In excellent condition with several rare species. Platanthera praeclara found variable years. Concerns about water level.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 1 plant; 1c (Federal T or E species): 1 plant; 1e (Rare species concentration): 14 birds and 7 plants; 1g (Examples of outstanding key habitats): Prairie; 3a (G1 or G2 plant community): UPn23b (96 acres); 3b (S1 or S2 plant community): MRp83a (9 acres), WMs92a (8 acres), UPn23b (96 acres), WPn53d (80 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain and protect localized habitats for rare species. - Enhance the rare plant communities that have been degraded, especially the MRp83a and UPn23b. - Maintain/enhance the landscape complex of openland habitats and their associated native plant communities. - Discriminate against aspen. - Dormant season fire can be a viable method to promote the above objectives. - Evaluate the current hydrologic regime and avoid any operations that may compromise the natural hydrology of this system.

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

2012 Hardwood Hills SFRMP. MFRC riparian scientific report.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

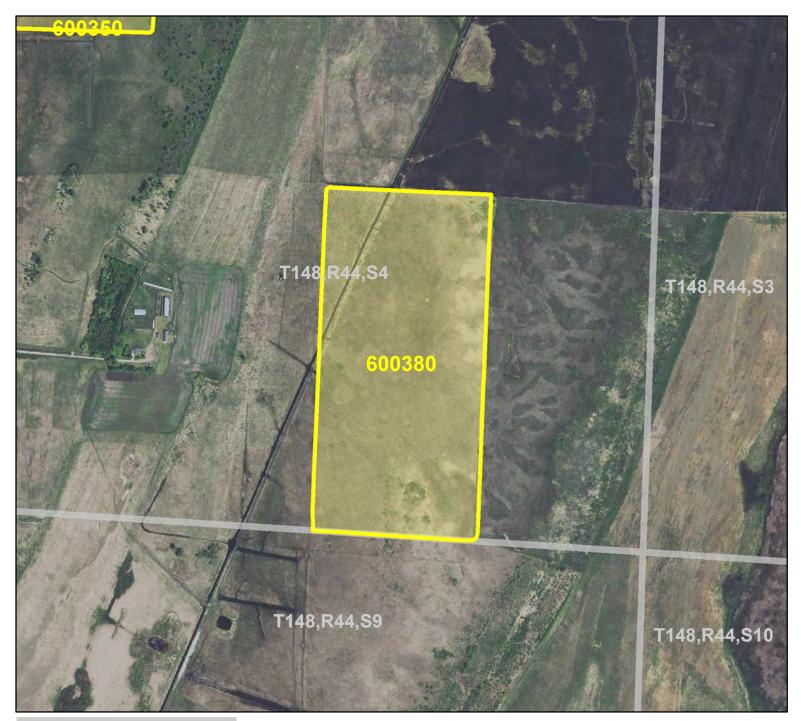
HCV 1b, 1c, 1e, 1g, 3a, 3b. The rare plant, several rare NPCs, and multiple SGCNs extend onto adjacent Glacial Ridge NWR, private, and The Nature Conservancy lands.

General Comments

The lands to the NE, E and W are Glacial Ridge; good ability to maintain and enhance. MBS "Site includes private land (Tilden Farms)"

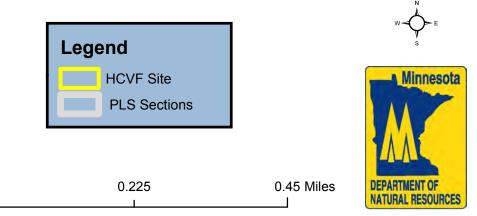
Reference to rare plants and animals, Minnesota Biological Survey Sites of Biological Significance and mapped native plant communities are records maintained in the Minnesota DNR's Natural Heritage Information System (NHIS). A date of information is associated with each record. The NHIS is continually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

HCVF Site 600380 Godfrey Prairie, Polk County

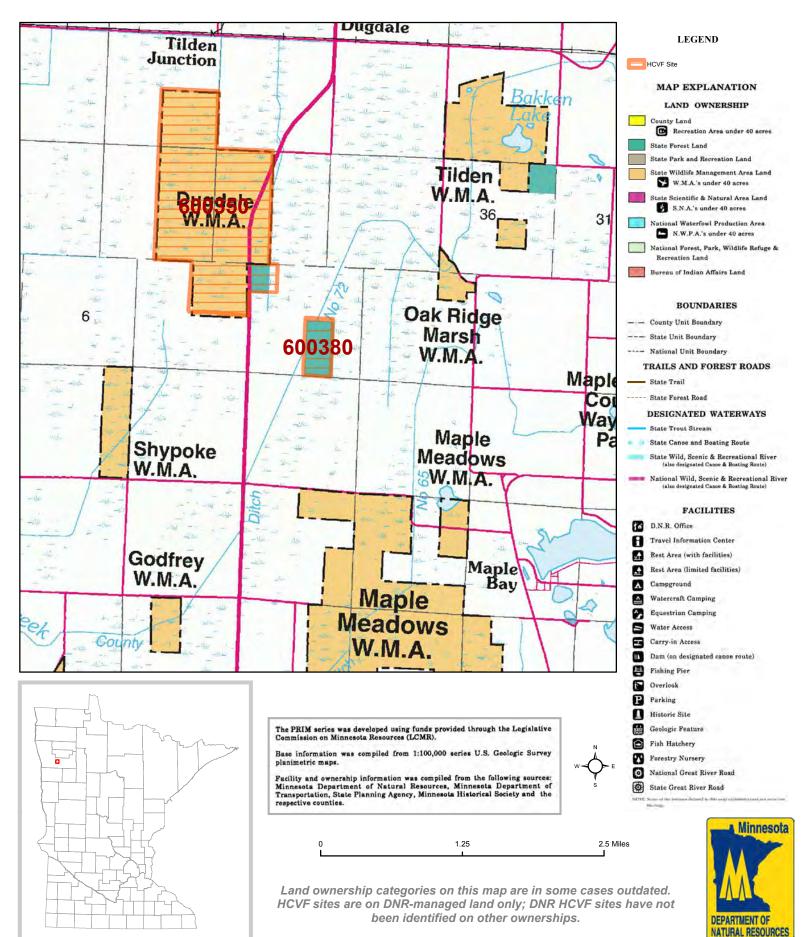




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HCVF Site 600380 Godfrey Prairie, Polk County



Report Run: September 3, 2013

General Information

HCVF #: 600380 HCVF Name: Godfrey Prairie Acres of HCVF site: 78.78 County: Polk

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Crookston Area Wildlife

HCVF Summary

Outstanding calcareous fen; part of Glacial Ridge NWR. Mosaic of mesic, wet, and saline prairie on gentle west-facing slope just to west of a beach ridge. ESE section 04 in excellent condition; WSE section 04 & WNE section 09 have experienced heavy grazing. Includes nice calcareous fen on beach ridge just E of center of section 9. Numerous rare plants.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1b (S1 or S2 species): 1 plant; 1c (Federal T or E species): 1 plant; 3a (G1 or G2 plant community): UPn23b, WPn53d; 3b (S1 or S2 plant community): UPn23b, WPn53a, WPn53a; 3c (Special S3 plant community): OPp91a (12 acres), WPn53c (43 acres).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain and actively manage plant community for rare plant; reduce shrub competition. - Minimize hydrologic disturbance; remove ditch and restore hydrologic regime. - Verify G-rank plant communities and subtypes. Verify S-rank communities and subtypes.

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

2011 Aspen Parklands SFRMP.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

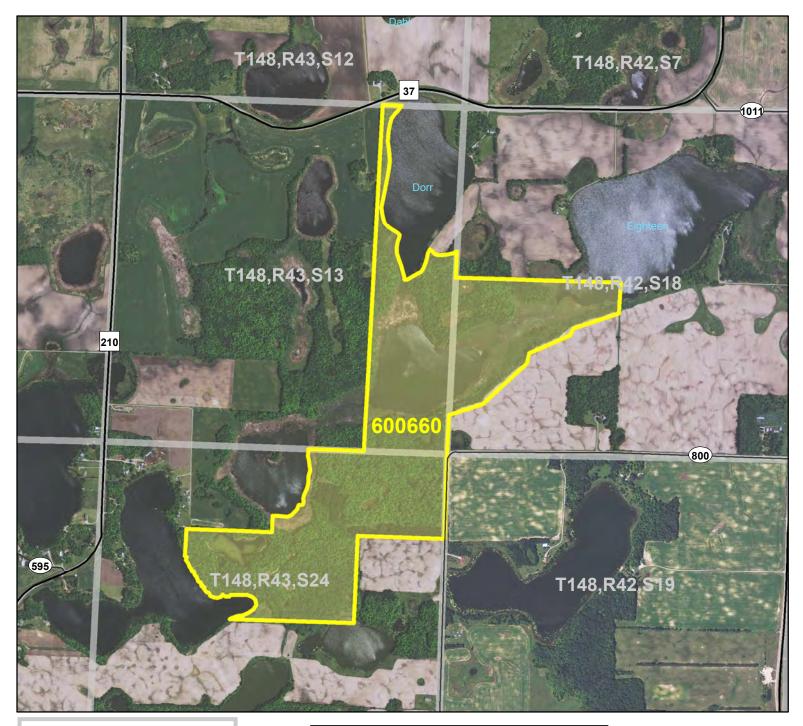
HCV 1b, 1c, 3a, 3b, 3c. Rare species and rare NPCs extend onto adjacent private, TNC, and Glacial Ridge NWR property. Federally listed plant extends across the boundaries of this HCVF.

General Comments

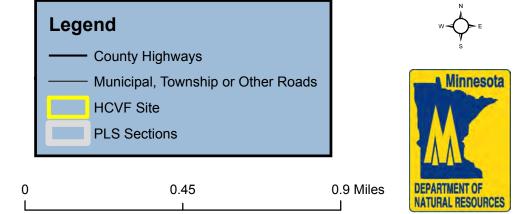
Management needs to be coordinated especially for the federally listed species and rare plant communities. Hydrology should be evaluated to determine if management should be coordinated in that regard.

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.

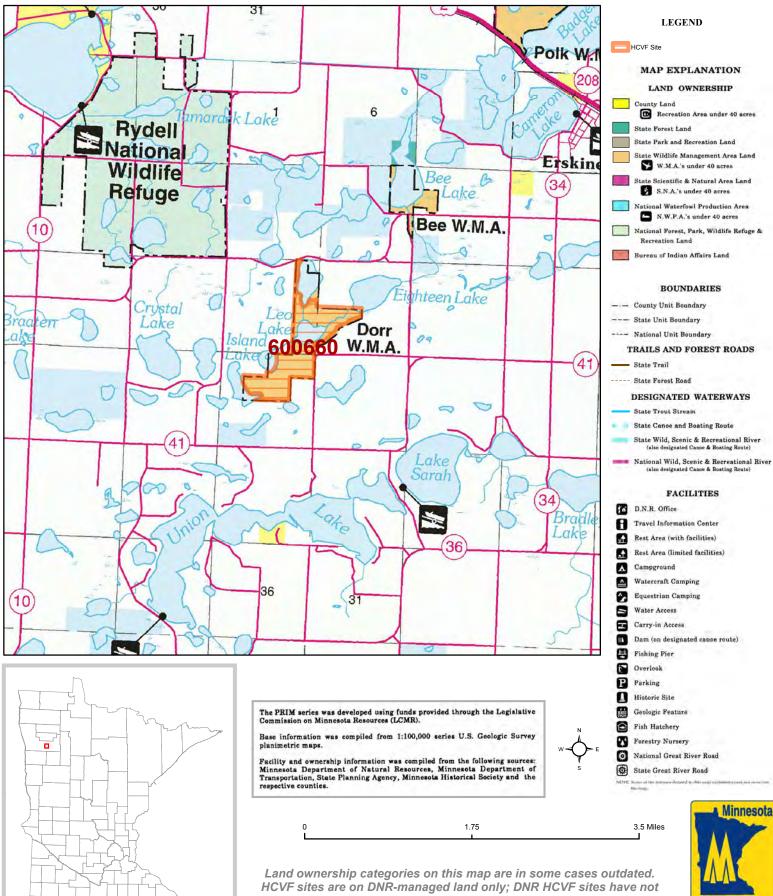
HCVF Site 600660 Dorr WMA 66, Polk County







HCVF Site 600660 Dorr WMA 66, Polk County



been identified on other ownerships.



Report Run: September 3, 2013

General Information

HCVF #: 600660 HCVF Name: Dorr WMA 66 Acres of HCVF site: 294.41 County: Polk

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Dorr WMA

HCVF Summary

Southern 60% of WMA is "excellent submature maple-basswood dominated by Acer saccharum with diverse groundlayer reflecting topographic diversity. 125 acres of MHs37b is contiguous forest. Many ephemeral ponds. Wet meadows between lakes. FPs63a (not mapped) south of Leo Lake. NW extent of maple-basswood forest on state land.

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 2c - EBF (forest block in ag. landscape): yes, 294 acres; 2d - EBF (forest block with vernal pools): yes, southern half; 3a (G1 or G2 plant community): FPs63a (11 acres); 3b (S1 or S2 plant community): FPs63a (11 acres), MRp83a (28 acres); 3e (Old-growth forest): Northern Hardwoods, 126 acres.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain and enhance the forest block, especially focusing on the rare NPCs. - Manage to maintain or promote older growth stages; maintain the designated Old Growth. - Consult latest BMP recommendations for vernal pools.

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

2012 Hardwood Hills SFRMP. MFRC riparian scientific report.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

HCV 2c, 2d, 3a, 3b, 3e. The rare plant communities, forest blocks and vernal pools are adjacent to or extend onto adjacent private lands.

General Comments

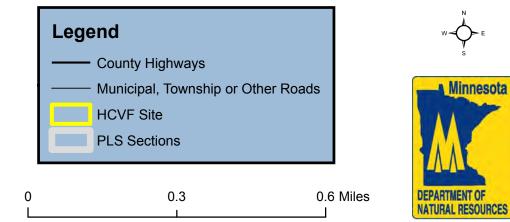
This site is the farthest western record of the blue spotted salamander. The only public maple-basswood-red oak area in Polk Co. Much of it is designated OG.

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.

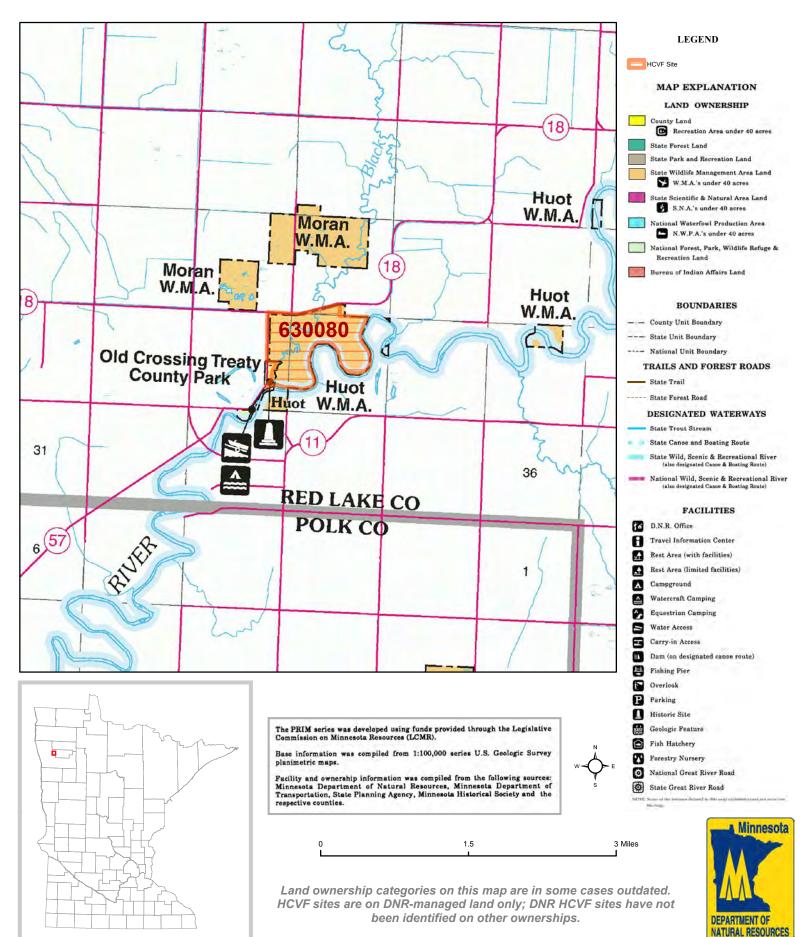
HCVF Site 630080 Huot WMA, Red Lake County







HCVF Site 630080 Huot WMA, Red Lake County



Report Run: September 3, 2013

General Information

HCVF #: 630080 HCVF Name: Huot WMA Acres of HCVF site: 370.80 County: Red Lake

Data edited by: Erik Thorson, Becky Marty **Role:** NW Reg HCVF Team Wildlife and EWR Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Wildlife **Management Unit Name(s) (if applicable):** Huot WMA

HCVF Summary

High quality, fairly mature lowland hardwood (MHw36a) and floodplain forests at valley bottom and slope at confluence of Black and Red Lake Rivers. Mapped NPCs total 332 acres. 114 acres of Designated OG (87 acres of which is FFn57a). Small parts of forested area have been cut; coming back as aspen woodland.

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.

TALLGRASS ASPEN PARKLANDS PROVINCE HCVs: 1e (Rare species concentration): 7 birds; 2bi - TAP (old forest): 118 acres, Northern Hardwoods, western portion along river; 2bii - TAP (forest block in ag. landscape): yes, 371 acres; 3b (S1 or S2 plant community): MHw36a (215 acres); 3c (Special S3 plant community): FFn57a (115 acres); 3e (Old-growth forest): Northern Hardwoods, 118 acres.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Conduct SGCN analysis for habitat needs. - Actively manage rare NPCs to maintain and enhance where necessary. - Maintain as forest block and allow forested native plant communities to succeed to older growth stages.

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

2011 Aspen Parklands SFRMP

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

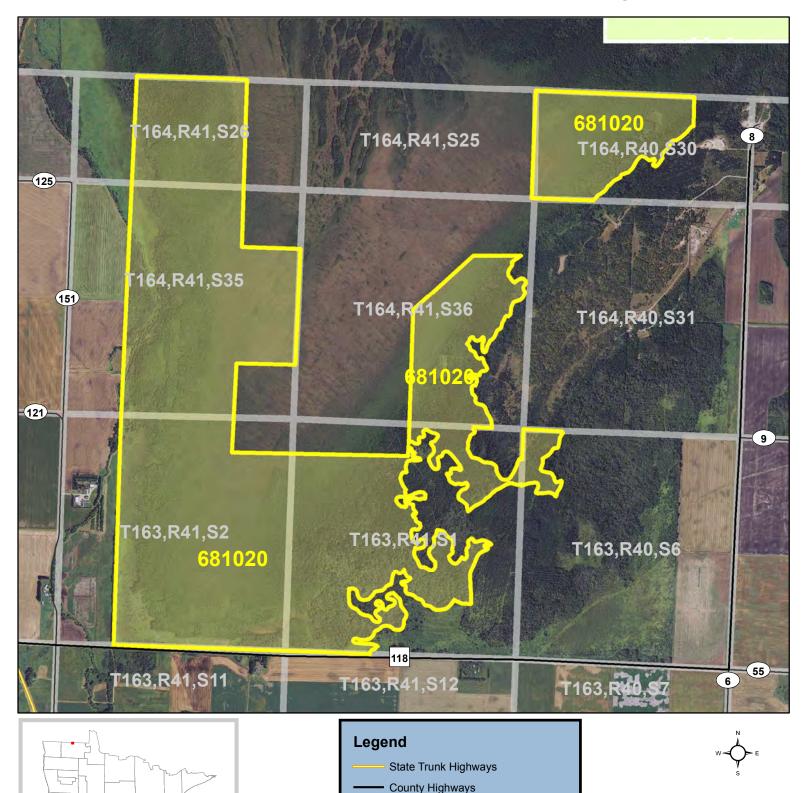
HCV 1e, 2bi, 2bii, 3b, 3e. Two rare NPCs, multiple SGCNs and the old-growth forest extend onto adjacent DNR Parks and Recreation, private ,and Red Lake County lands.

General Comments

Needs survey for early spring flora. Currently they do not do much active management; designated OG within the unit.

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.

HCVF Site 681020 Pine Creek Peatland, Roseau County



Municipal, Township or Other Roads

1 Miles

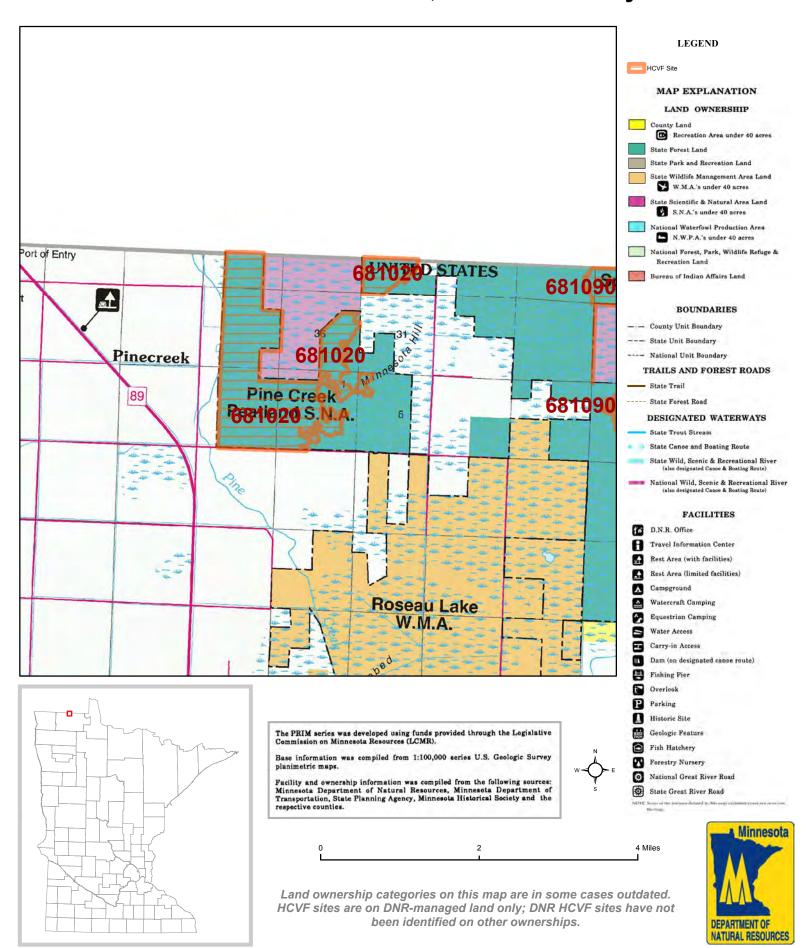
Ramps HCVF Site PLS Sections

0.5

0



HCVF Site 681020 Pine Creek Peatland, Roseau County



Report Run: September 3, 2013

General Information

HCVF #: 681020 HCVF Name: Pine Creek Peatland Acres of HCVF site: 1682.69 County: Roseau

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Lost River State Forest

HCVF Summary

This site is one of 18 ecologically significant patterned peatlands identified in the state. It contains the best example of the spring fen landform, which has extremely rich fen channels flowing through a rich forested swamp. A large undisturbed northern rich fen occurs downslope that has well defined ribbed patterns. Three state threatened species are present: Cypripedium arietinum, Carex sterilis, and Drosera linearis.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1b (S1 or S2 species): 3 plants; 1g (Examples of outstanding key habitats): wetland-nonforest; 2bii - LMF (Late-successional forest block with rare species): yes; 3b (S1 or S2 plant community): OPn91b2, OPn93a; 3c (Special S3 plant community): FPn71a, FPw63a, MHn44c, OPn91b1, WFn53b; 3f (Potential primary forest): yes; 3g (Potential roadless area).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer; seek rare plants as found in adjacent SNA. - Maintain current mix of cover types and age classes across the HCVF site; look for opportunities to reduce shrubs in the wetter areas and promote older growth stages. - Maintain and protect rare plant communities; when doing management, verify NPCs. - Restore habitats and hydrology. - Validate potential primary forest. - Validate potential roadless area.

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

2010 Agassiz Lowlands SFRMP Extension. 2010 Pine Creek Peatland SNA plan. The Patterned Peatlands of Minnesota, 1992. Recommendations for the Protection of Ecologically Significant Peatlands in Minnesota, 1984.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

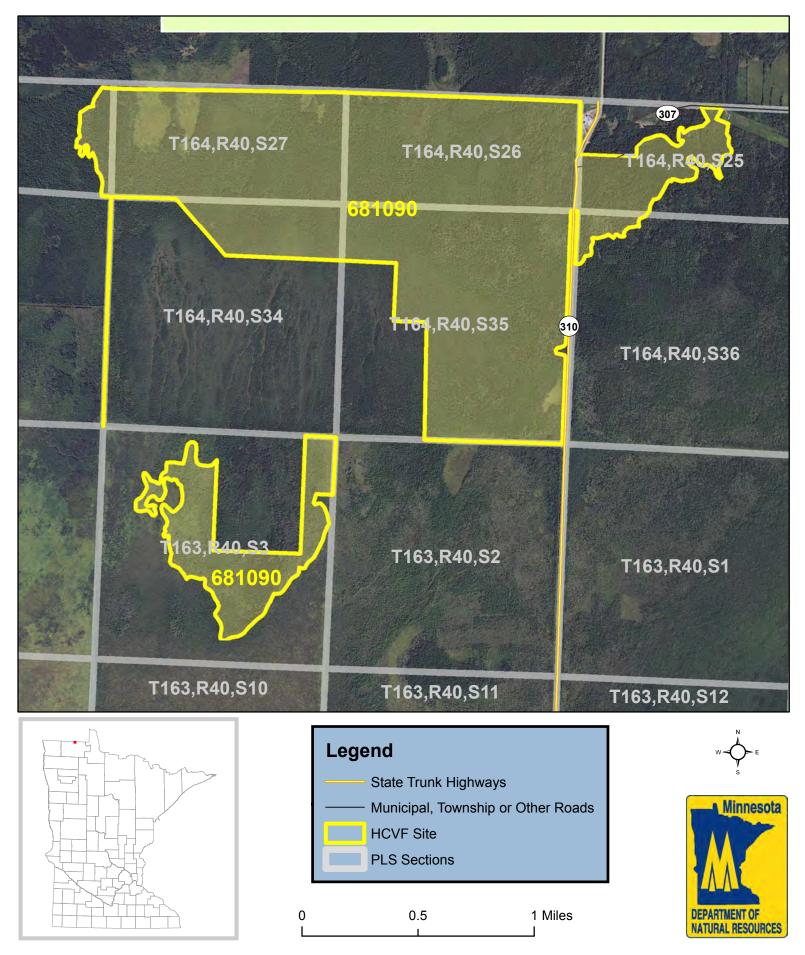
HCV 1g, 2bii, 3b, 3c, 3f, 3g. Pine Creek Peatland SNA is nested within (but not included with) this HCVF and contains additional SGCN, rare species, and rare plant communities. Rare species, S2 and S3 HCVs extend onto adjacent Private and Dept of Transportation property.

General Comments

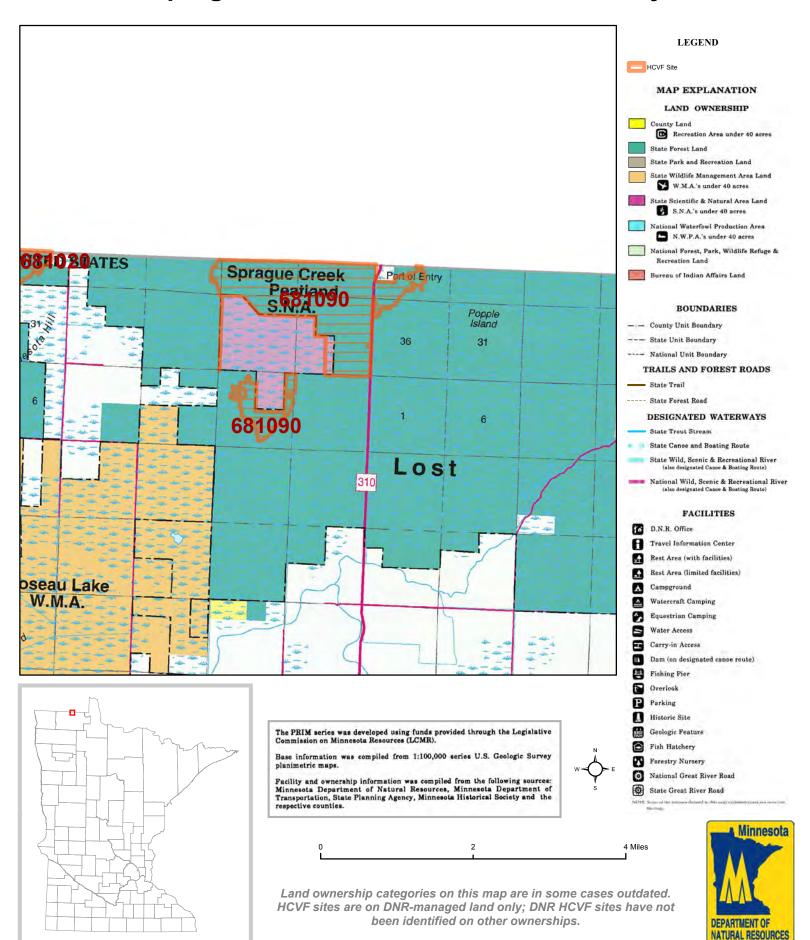
Multiple rare plants, SGCN, and NPCs documented across this HCVF boundary. There are multiple management plans directing management direction at this site. Hydrology should be evaluated to determine if management could be coordinated in that regard.

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.

HCVF Site 681090 Sprague Creek Peatland, Roseau County



HCVF Site 681090 Sprague Creek Peatland, Roseau County



Report Run: September 3, 2013

General Information

HCVF #: 681090 HCVF Name: Sprague Creek Peatland Acres of HCVF site: 1482.17 County: Roseau

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Lost River State Forest

HCVF Summary

This site is one of 18 ecologically significant patterned peatlands identified in the state. This peatland contains a good example of one of only five spring fen landforms in the state. It contains extremely rich fen channels flowing through a rich forested swamp. Numerous rare plant species are present including Cypripedium arietinum, Rhynchospora capillaris, Drosera anglica, Cladium mariscoides, and Malaxis monophylla.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1g (Examples of outstanding key habitats): Forestlowland coniferous, Wetland-nonforest; 2bii - LMF (Late-successional forest block with rare species): yes; 3b (S1 or S2 plant community): OPn91; 3c (Special S3 plant community): FPn63c, FPn71a, WFn53b, WFn74a; 3f (Potential primary forest): yes; 3g (Potential roadless area).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer. - Maintain current mix of cover types and age classes across the HCVF site; look for opportunities to promote older growth stages. - Validate, maintain and protect S2 plant community OPn91; restore habitats and hydrology. - Validate potential primary forest. - Validate potential roadless area.

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

2010 Agassiz Lowlands SFRMP Extension. The Patterned Peatlands of Minnesota, 1992. Recommendations for the Protection of Ecologically Significant Peatlands in Minnesota, 1984. Sprague Creek Peatland Watershed Protection Area mgmt plan for Timber and Gr

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.

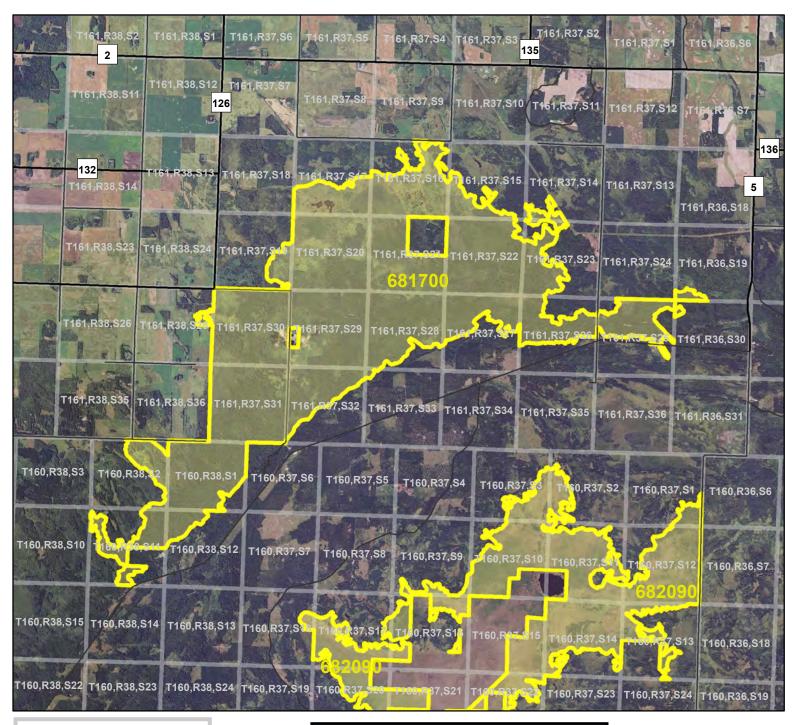
HCV 1g, 2bii, 3b, 3c, 3f, 3g. Sprague Creek Peatland SNA is nested within (but not included with) this HCVF and contains additional rare species, SGCN, and rare habitats. Rare species, S2 and S3 NPCs extend onto adjacent Private and Dept of Ag property.

General Comments

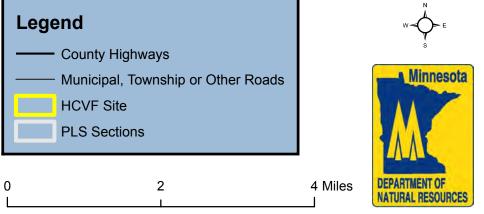
A portion of this area is managed for great gray owls. Significant acreage of forest over 145 years old. Multiple rare plants, SGCN, and NPCs documented across this HCVF boundary. Hydrology should be evaluated to determine if management could be coordinated in that regard.

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.

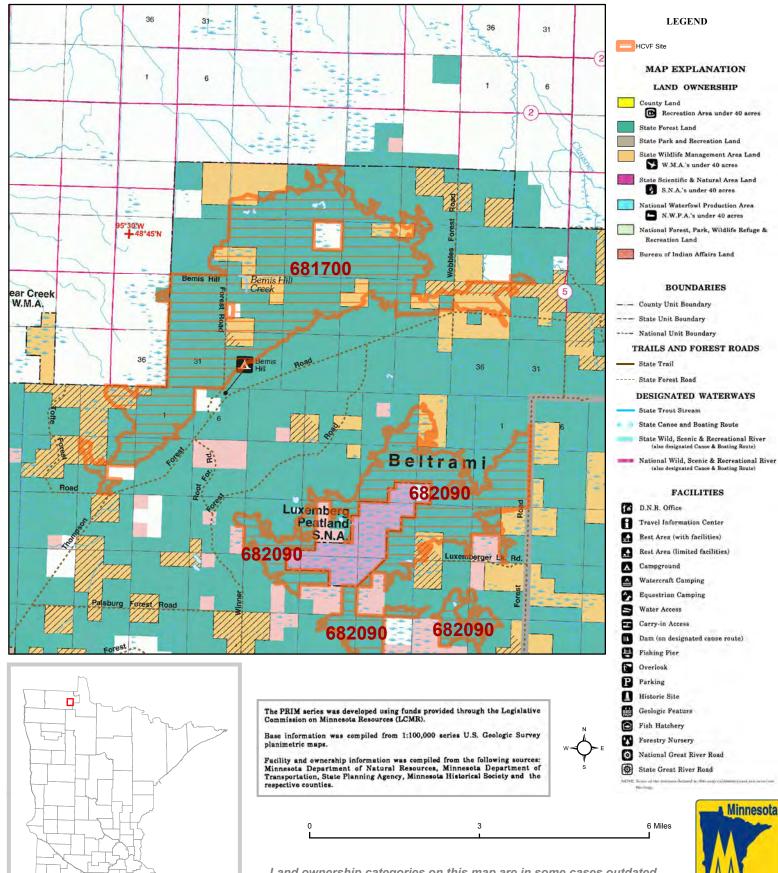
HCVF Site 681700 Bemis Swamp, Roseau County







HCVF Site 681700 Bemis Swamp, Roseau County



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.



Report Run: September 3, 2013

General Information

HCVF #: 681700 HCVF Name: Bemis Swamp Acres of HCVF site: 7567.00 County: Roseau

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry/Wildlife **Management Unit Name(s) (if applicable):** Beltrami Island State Forest

HCVF Summary

This site is dominated by a large seepage-fed peatland at base of a prominent beach ridge. Numerous rare plants and orchids occur through much of the area. This site has one of most species rich and abundant orchid populations in the state and probably includes one of the largest, if not the largest, populations of Cypripedium arietinum in the state. Ditches, road, and a gravel pit occur within site, but downstream of most important features. Good and extensive examples of wet forest and rich peatland forest communities are present. This site is also unique setting for two spring fens.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1b (S1 or S2 species:): 2 plants; 1f (Taxonomic group concentration): orchids; 1g (Examples of outstanding key habitats): Forest-lowland coniferous, wetland-non-forest; 2a - LMF (Large forest/peatland block): 7,567 acre peatland; 3a (G1 or G2 plant community): OPn93a; 3b (S1 or S2 plant community): OPn93a, FDn12a, FDn32d, MRn83b; 3c (Special S3 plant community): FPn63c, FPn71a, MHn44c, WFn53b, WFn74a.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer. - Maintain current mix of cover types and age classes across HCVF. - Validate occurrence and location of S1/S2 species and species concentrations; maintain and protect localized habitats and hydrology. - Validate S1/S2 plant community FDn12a. - Minimize size and impact of crown closure from any harvest activities. - Manage to maintain or promote older growth stages.

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

2010 Agassiz Lowlands SFRMP Extension. Ecological Evaluation of Bemis Swamp 2009.

Are the HCVs within this HCVF likely to benefit from coordination with adjacent landowner(s)? $_{\rm Yes}_$

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.

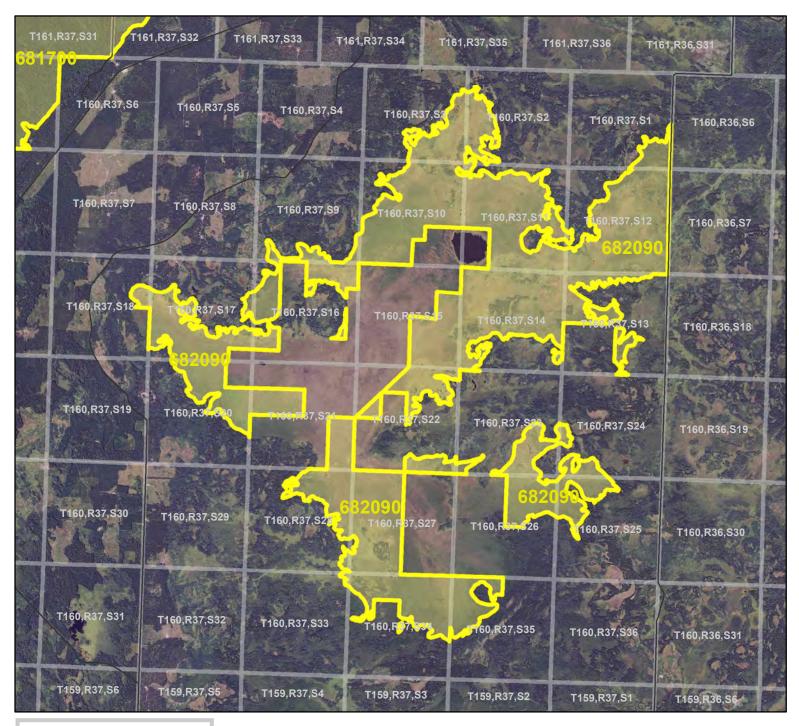
HCV 1b, 1f, 1g, 2a, 3a, 3b, 3c. Rare species, S2 and S3 NPCs extend onto adjacent private and USFWS LUP property.

General Comments

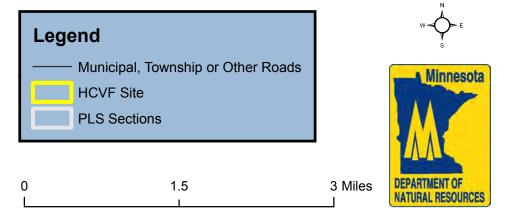
Multiple rare plants and NPCs documented across this HCVF boundary. Hydrology should be evaluated to determine if management could be coordinated in that regard.

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.

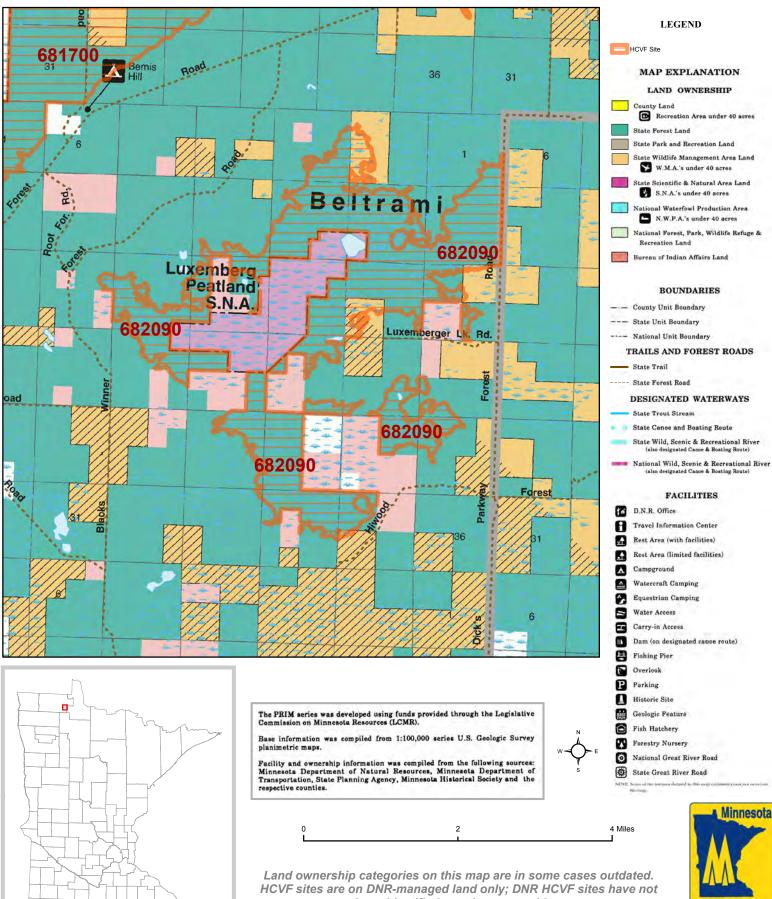
HCVF Site 682090 Luxemberg Peatland, Roseau County







HCVF Site 682090 Luxemberg Peatland, Roseau County



been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 682090 HCVF Name: Luxemberg Peatland Acres of HCVF site: 4716.08 County: Roseau

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Beltrami Island State Forest

HCVF Summary

This peatland complex is one of 18 ecologically significant patterned peatlands identified in the state. It contains a good example of an extensive water track dominated by northern rich fen and well-defined ribbed fen pattern. Rare plants include Drosera anglica and Nymphaea leibergii and rare animals include short-eared owl and yellow rail.

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.

LAURENTIAN MIXED FOREST PROVINCE HCVs: 1e (Rare species concentrations): 19 birds; 1g (Examples of outstanding key habitats): forest-lowland coniferous, wetland-non-forest; 2a - LMF (Large forest/peatland block): 4,716 acre peatland; 3b (S1 or S2 plant community): FDn32d, MRn83b, OPn91b2; 3c (Special S3 plant community): FPn71a, MHn44c, OPn91b1, WFn74a; 3g (Potential roadless areas).

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF Recommendations - Maintain diverse ground layer. - Maintain current mix of cover types and age classes across the HCVF site. - Look for opportunities to promote older growth stages. - Maintain and protect S2 plant communities; restore habitats and hydrology.

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

2010 Agassiz Lowlands SFRMP Extension. The Patterned Peatlands of Minnesota, 1992. Recommendations for the Protection of Ecologically Significant Peatlands in Minnesota, 1984.

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.

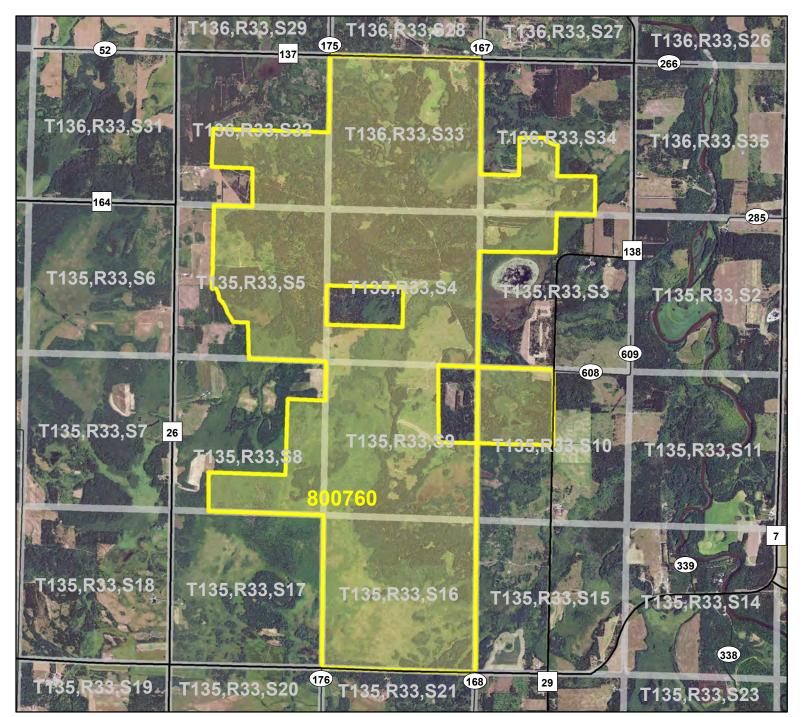
HCV 1e, 1g, 2a, 3b, 3c, 3g. Luxemberg Peatland SNA is nested within (but not part of) this HCVF and contains additional SGCN, rare species, and rare plant communities. Rare species and S3 NPCs extend onto adjacent private, Tribal, and BIA property.

General Comments

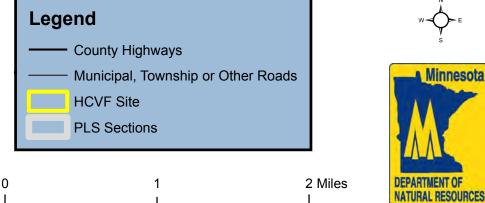
Multiple rare plants and NPCs documented across this HCVF boundary. State threatened plant observed on Mud Lake within adjacent SNA. Hydrology should be evaluated to determine if management could be coordinated in that regard.

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.

HCVF Site 800760 Central Lyons SF, Wadena County

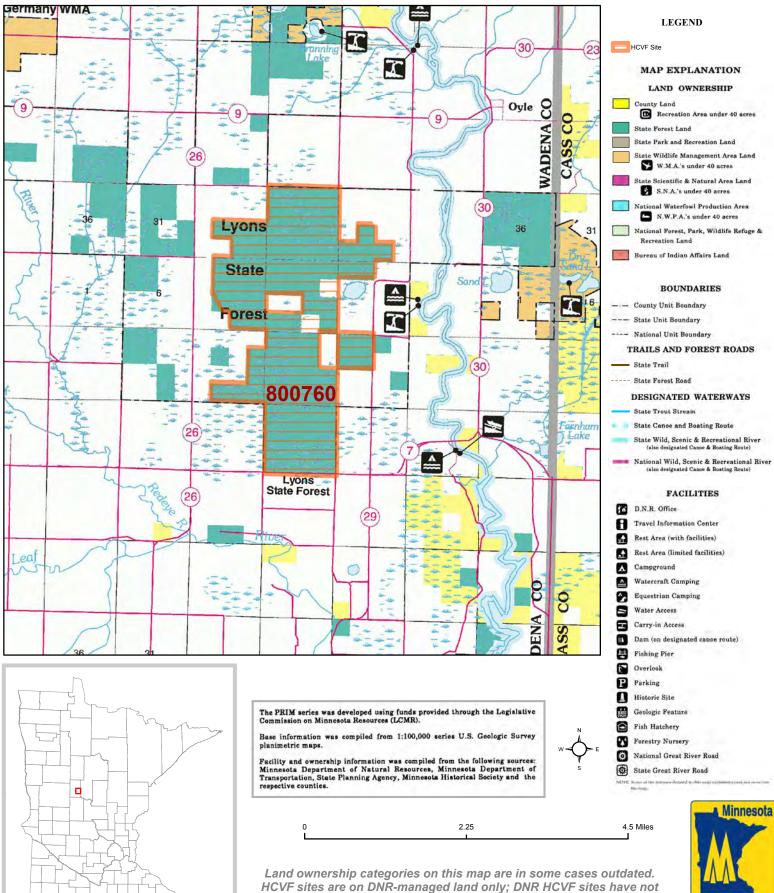








HCVF Site 800760 Central Lyons SF, Wadena County



been identified on other ownerships.

DEPARTMENT OF NATURAL RESOURCES

Report Run: September 3, 2013

General Information

HCVF #: 800760 HCVF Name: Central Lyons SF Acres of HCVF site: 3666.89 County: Wadena

Data edited by: Becky Marty, Erik Thorson **Role:** NW Reg HCVF Team EWR and Wildlife Representatives **Date edited on:** 2013-08-22

Corresponding Land Administrator(s): Forestry **Management Unit Name(s) (if applicable):** Lyons State Forest

HCVF Summary

Largest concentration in Minnesota Drift and Lake Plains Section of FDc23a (S1-S2, G2), and 629 acres are natural origin. Also large acreage of rich and poor fens, and sedge meadow; Large population of Cirsium hillii believed to be on state land. State ownership is large, centrally located, and contiguous on level to gently rolling sand.

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.

EASTERN BROADLEAF FOREST PROVINCE HCVs: 1f (Taxonomic group concentration): birds; 1g (Examples of Outstanding Key Habitats): Upland coniferous forest; 2a - EBF (intact forest block): 3,667 ac; 2b - EBF - (old forest): yes; 2c - EBF (forest block in ag. landscape): yes; 3a (G1 or G2 plant community): FDc23a; 3b (S1 or S2 plant community): FDc12a, FDc23a, FDc24; 3d (Natural origin pine stand): 629 ac.

Management Considerations

Overall management objectives for the entire HCVF:

Region HCVF H4Recommendations - Maintain diverse ground layer especially for bird species and potential rare plant. - Maintain current mix of cover types and age classes across HCVF. - Actively manage rare plant communities to maintain, enhance, and increase where necessary; verify subtypes. - Verify the extent of old forest, NPC/cover type and general location in the HCVF. - Maintain intact nature of the forest block. - Manage to maintain or promote older growth stages.

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

2008 Chippewa Plains-Pine Moraines and Outwash Plains SFRMP

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.

HCV 1f, 1g, 2a, 2b, 2c, 3a, 3b, 3d. Rare species and NPCs likely extend onto adjacent private and industry lands.

General Comments

Multiple SGCN cross the HCVF boundaries. These are most common in the southern and eastern portion of the HCVF.

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.