

**Wisconsin Department of Natural Resources
Natural Resources Board Agenda Item**

SUBJECT: Approval of Master Plan amendments to the Northern Highland-American Legion State Forest and Willow Flowage.

FOR: October 23, 2013 Board meeting

TO BE PRESENTED BY: Paul DeLong, Division Administrator, Forestry

SUMMARY:

The Department requests approval of four Master Plan amendment elements for the Northern Highland-American Legion State Forest and Willow Flowage. Chapter NR 44, Wis. Adm. Code outlines the amendment process for property master plans.

The four NRB decision points are: 1.) NHAL Master Plan Amendment; 2.) Willow Flowage Master Plan Amendment, Iron Gate Road; 3.) Willow Flowage Master Plan Amendment Continuance; and 4.) Approval on how to proceed with additional Master Plan Amendment requests from the Town of Little Rice.

The first recommendation is to amend the Master Plan (Oct 2005) for the Northern Highland-American Legion State Forest located in Vilas and Oneida County. The amendment designates the future use and management, including management classifications, objectives and prescriptions, for five parcels, totaling 3,100 acres, acquired since the approval of the Northern Highland-American Legion State Forest master plan in 2005 and codifies current management of two existing designated State Natural Areas, totaling 998 acres located within the 2005 Master Plan boundary area. In addition, the NHAL plan amendment proposes the addition of camping opportunities on the Rainbow Flowage unit, including water accessible group sites, canoe sites, and a traditional group camp.

The second recommendation is to amend the Master Plan for the Willow Flowage property located in Oneida County. The proposal addresses public interest for additional motorized access, primarily for fall hunting purposes. The proposed change would allow additional seasonal (fall) public motorized access on a segment of Iron Gate Road.

The third recommendation is approval for a master plan amendment continuance on Willow Flowage for Cedar Falls Fire Lane and West Side Fire Lane, two originally proposed road segments for motorized use. The continuance would also allow an opportunity to address additional access interests and requests; including evaluating the impacts of the Iron Gate Road segment opening.

The fourth request is approval to address additional master plan amendment requests from the Town of Little Rice in Oneida County, submitted during the public comment period but outside of the scope of the current plan amendment process.

RECOMMENDATION: The Department recommends approval of the four plan amendment elements.

LIST OF ATTACHED MATERIALS (check all that are applicable):

- Background memo
- Response Summary
- Draft Amendment
- N/A

Approved by	Signature	Date
Robert Mather, Bureau Director	<i>Bob Mather</i>	10/4/13
Paul DeLong, Administrator	<i>Paul DeLong</i>	10/4/13
Cathy Stepp, Secretary	<i>Watt Stepp</i>	10/7/13

CORRESPONDENCE/MEMORANDUM

DATE: October 1, 2013

TO: Natural Resource Board

FROM: Secretary Cathy Stepp



SUBJECT: Northern Highland-American Legion State Forest Master Plan Amendment
Willow Flowage Scenic Waters Area Master Plan Amendment
Willow Flowage Scenic Waters Area Master Plan Amendment continuance
Additional Willow Flowage SWA Master Plan Amendment Requests from Public

Thank you in advance for considering the approval of four Master Plan amendment elements.

The first proposal is to amend the master plan for the Northern Highland-American Legion State Forest located in Vilas, Oneida and Iron Counties. The amendment designates the future use and management, including management classifications, objectives and prescriptions, for five parcels, totaling 3,100 acres, acquired since the approval of the Northern Highland-American Legion State Forest master plan in 2005. Four of the five parcels, totaling 2,660 acres, will be managed under a forest production classification in the Winegar Moraines Area and one parcel, the Van Vliet Block, will be managed under a Native Community classification in the Hemlock Hardwood Area. One of the forest production blocks, the Ontonagon block, was identified, and is, designated as having characteristics that meet the needs of a statewide deer research project linked with the Kroll report. The proposed NHAL amendment also codifies current management of two existing designated State Natural Areas, totaling 998 acres located within the 2005 Master Plan boundary area. . In addition, the NHAL plan amendment proposes the addition of camping opportunities on the Rainbow Flowage unit, including water accessible group sites, canoe sites, and a traditional group camp. The Rainbow Flowage unit was acquired during the approval process of the 2005 Master Plan but recreation interests were not fully known at that time and in the past few years, users have expressed interest in water camping opportunities. Nearly all of the public comments received on the NHAL amendment were related to Van Vliet Hemlock block, expressing concerns with the Departments proposal to conduct forest management on the northern portion of the block. The Department did modify the proposed management of the 73 acres in the final draft plan to reflect allowing natural processes to occur with the exception of invasive species control the same as the rest of the Van Vliet block.

The second master plan amendment proposal is on the Willow Flowage Scenic Waters Area property located in Oneida County. The proposal addresses public interest for additional motorized access, primarily for fall hunting purposes. The proposed change would allow additional seasonal, from the Tuesday after labor day to December 15, public motorized access on a segment of Iron Gate Road totaling approximately 4 miles. A portion of Iron Gate Road is currently open year round for public vehicles and another section open seasonally. Iron Gate Road is currently maintained at a moderately developed standard and the currently closed segment is supporting vehicle use for forest and property management purposes. Iron Gate Road, in full, would also be open to ATV/UTVs during the same time period as vehicle access, creating an additional regional connector link using county forest and town roads to the existing Willow Flowage ATV trail already in place. ATV designation would remain in effect as long as

the town road on the west remains and County Highway Y are designated as ATV routes.

The third request for approval is authorization for a plan amendment continuance on Cedar Falls Fire Lane and West Side Fire Lane, two originally proposed road segments for motorized use and additional comments submitted from the Town of Little Rice outside of the comment period. During the public review process it became very apparent that access on and to the Cedar Falls and West Side Fire lanes is highly dependent on adjacent landowners and the existing roads are part of an interconnected regional snowmobile trail system. The Department is not recommending any changes to these two road segments at this time. However, the Department is requesting approval to continue discussions with private landowners, soliciting public comments on the options that emerge and a potential future NRB decision for any changes to motorized access on these road segments and, or any other road segment that may emerge due to public involvement. The continuance will also allow the Department an opportunity to review the effectiveness of the Iron Gate Road opening and propose any adjustments based on public feedback.

The fourth request is approval to address and proceed, as appropriate, with additional master plan amendment requests from the Town of Little Rice, submitted during the public comment period but outside of the scope of the current plan amendment process. Three of the requests can be addressed either through a master plan variances or administrative decision process, not requiring NRB approval. One of the requests is to re-name and re-designate the property, as well as land management objectives which would require NRB approval and is suggested to be addressed at the time of the next Master Plan revision. Comments submitted relating to motorized access will be address in the continuance request described above.

Public Involvement Process and Controversial issues

In May of 2013, the Department sought public comment on the scope of the amendment, current conditions and desires, known interests based on prior annual property meetings and a public involvement plan and the process and timeline for the plan amendment. In July of 2013, the Department shared for public comment a proposal, a preferred alternative, with alternatives considered. Information was shared on the Departments web site, sent to a stakeholders and interested person list, direct outreach to local units of governments and consultation with Tribes. Two public open house meetings and an online chat were held for the proposal. A summary and response to comments was developed and included.

For the NHAL amendment nearly all of the public comments were related to Van Vliet Hemlock block, expressing significant concern with the Departments proposal to conduct forest management on the northern portion of the block.

The Willow Flowage proposal received approximately 80 comments including diverse interests both for increased public motorized access and for maintaining current access levels. There were additional comments received from the Town of Little Rice during the comment period on topics not originally included in the proposed motorized access amendment which will be addressed outside of this approval request. Additional comments regarding access will be considered and included in the amendment continuance for Cedar Falls and West Side fire lanes and other access suggestions.

The Department recommends approval of:

- 1. NHAL Master Plan Amendment.**
- 2. Willow Flowage SWA Master Plan Amendment – Iron Gate Road.**
- 3. Willow Flowage SWA Master Plan Amendment Continuance.**
- 4. Approval on how to proceed with additional Master Plan Amendment Requests from the Town of Little Rice.**

cc:

NORTHERN HIGHLAND - AMERICAN LEGION STATE FOREST PROPOSED MASTER PLAN AMENDMENT USE AND MANAGEMENT OF ACQUISITIONS SINCE 2005 PLAN APPROVAL



OCTOBER 2013
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY

ACKNOWLEDGEMENTS

Many individuals from the Department of Natural Resources have developed this analysis and draft plan through an integrated planning process. Through their hard work and expertise, these people have developed an analysis and draft plan that will guide the master plan amendment for the NHAL State Forest.

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Introduction

The purpose of this proposed amendment is to describe the future use and management for five parcels acquired since the approval of the Northern Highland - American Legion State Forest master plan in 2005. The amendment also codifies current management of two existing designated State Natural Areas located within the 2005 Master Plan boundary area. All parcels are located within Vilas County, Wisconsin (See Map 1).

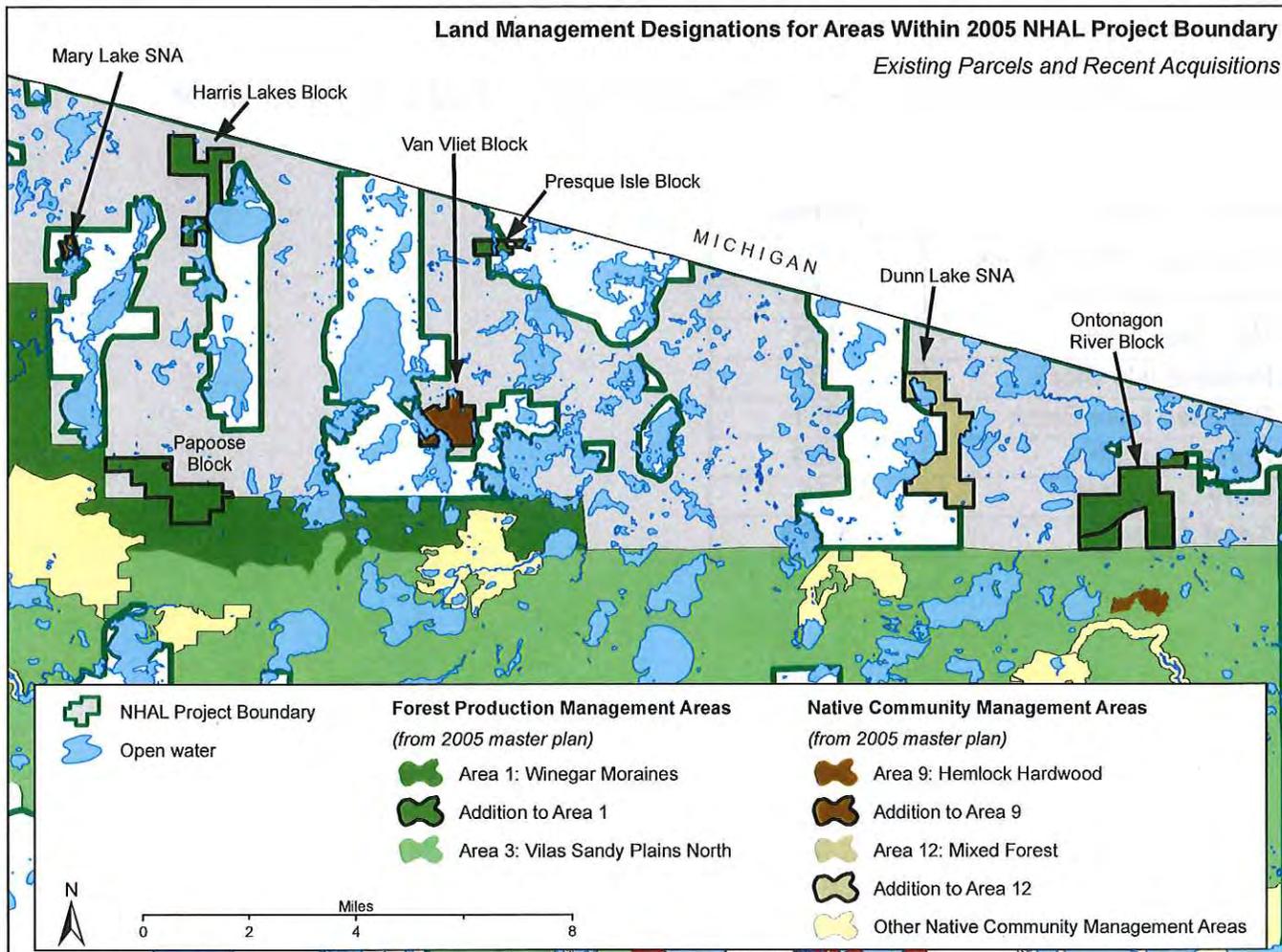
In addition, there are proposed changes to the camping opportunities on the Rainbow Flowage portion on the NHAL, located in Oneida County. The Rainbow Flowage was acquired during the approval process of the 2005 Master Plan and use and recreation interests were not fully known at that time.

Existing, and Acquired Lands since 2005, included in the Proposed Amendment

Parcel Name	Acres
Ontonagon River Block	1,163
Harris Lake Block	554
Van Vliet Block	433
Presque Isle Block	101
Papoose Lake Block	851
Dunn Lake SNA	954
Mary Lake SNA	44
Total Acres	4,100

Land Management Designations for Areas Within 2005 NHAL Project Boundary

Existing Parcels and Recent Acquisitions



Ontonagon River Block

PROPERTY DESCRIPTION

The Ontonagon River Block consists of 1160 acres of forested lands on both sides of Vilas County Highway B in the Township of Land O' Lakes. The property is bordered by NHAL State Forest on the south, large private ownerships on the east, west and south and Board of Commissioners of Public Lands lands on the north. The Ontonagon River runs along the west and south edges. The northeast fronts Dalzell Lake for about 1/4 mile. The property is well roaded with access off County Highway B and town road, Palmer Lake Road. Most of the parcel was formerly managed in the Managed Forest Law tax program for forest products with a sustainable plan. The property is located adjacent to State Forest Property Master Plan Classification, Winegar Moraines Forest Production Management Classification.

Landscape Classification

The properties are primarily within the North Central Forest Ecological Landscape, with a minor amount within the Northern Highland Ecological Landscape. The North Central Forest is approximately 9,543 square miles (6,107,516 acres) in size, representing 17.1% of the total land area of the state. Forests cover approximately 75% of this Ecological Landscape. The mesic northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, with some stands containing scattered hemlock, yellow birch, and/or white pine pockets. The aspen-birch forest type group is also abundant, followed by spruce-fir. Forested and non-forested wetland communities are common and widespread. These include Northern Wet-mesic Forest (dominated by either northern white cedar or black ash), Northern Wet Forest (acid conifer swamps dominated by black spruce and/or tamarack), non-forested acid peatlands (bogs, fens, and muskegs), alder thicket, sedge meadow, and marshes (including wild rice marshes) are widespread in the North Central Forest.

Geology, Soils and Topography

Landforms in the North Central Forest are characterized by end and ground moraines with some pitted outwash and bedrock-controlled areas. Kettle depressions and steep ridges are found in the northern portion of the Ecological Landscape. Drumlins are important landforms in some parts of the North Central Forest. Soils consist of sandy loams, sands, and silts. Organic soils, peats and mucks, are common in poorly drained lowlands.

The upland soils of this parcel are primarily loamy sands and sandy loams. There are small scattered pockets of sandy soils and peats and mucks in the lowlands. Topography is characteristic of the Winegar terminal moraine landscape, level to rolling with some hilly areas.

Lakes, Streams, and Wetlands

There are several localized but significant concentrations of glacial kettle lakes associated with end and recessional moraines, including the Winegar Moraine, which these properties are associated with. Major lakes in the area include Palmer, High, Big and West, along with dozens of small lakes and ponds. The property contains frontage along Dalzell Lake. Forested and unforested wetlands are also widespread, with peatland types being common. The majority of these properties are part of the Presque Isle River Watershed.

Current Cover Types and Natural Communities

Land cover is 76% upland forest, 19% lowland forest and 5% open lowlands (See Map 3). Natural communities include hemlock hardwoods, mesic northern hardwood forest and lowland conifer swamp communities. Opportunities exist for large ecological landscape of forest cover. Important forested wetland communities such as white cedar swamps and conifer swamps dominated by black spruce or tamarack are common. Other natural communities of this landscape to note are cool water streams, ephemeral ponds, and northern hardwood swamps.

Table 1. Acres of Cover Type on the Ontonagon River Block		
Cover Type	Acres	%
Forested Types		
Northern Hardwood	581	48
Black Spruce/Tamarack/Cedar	188	16
Aspen	125	10
Hemlock Hardwoods	75	6
Other	53	5
White Spruce	58	5
White Pine	59	5
Total	1139	95
Non-forested Types	60	5
Property Total	1199	100

Source: WDNR Forest Recon Database

Recreation Facilities

The southern parcel of the Ontonagon River Block has a long history of enrollment in Managed Forest Law and was used by the public for those authorized activities, primarily hunting but also hiking and possibly trapping. It has a network of woods roads already in place and has fair access from the county highway. The northern parcel of the Ontonagon River Block was private property and there is little evidence of public use. There is no trail onto the property and users that arrive with a vehicle would need to park on the side of Palmer Lake Road. The lake frontage is undeveloped. Both parcels are contiguous to large blocks of BCPL ownership. There are no recreation facilities developed on either parcel.

Canoers have access to the Ontonagon River from County Highway B. This is an access to Palmer Lake from High Lake portage.

Historical/Archeological

There are no known cultural or archeological features located within the parcels.

Administrative and Other Facilities

There are no administrative or other facilities present on the parcels.

Ontonagon River Block – Management and Use

Land Management Classification and Area Designation

Addition to Area 1 – Winegar Moraines Forest Production Area (2005 NHAL Master Plan Land Management Classification)

(from 2005 Master Plan)

Long-term Management Objectives (100 years)

- Maintain and enhance existing stands of northern-hardwoods to increase age diversity and to maintain stand health and vigor.
- Manage at a landscape level considering how these lands can complement the objectives in the adjacent Hemlock Hardwood Native Community Management Areas.
- Maintain areas of early successional forest (aspen, white birch) in mixed forest stands.
- Maintain diversity of forested and unforested wetlands.

Short-term Management Objectives (50 years)

- Develop a diversity of ages and stand sizes for aspen, white birch and northern hardwoods.
- Retain and encourage yellow birch, white pine and hardwood components on aspen dominated sites. Some harvesting of these species is permitted to meet stand goals.
- Maintain diversity of forested and unforested wetlands. Some black spruce and tamarack stands would be regenerated through active management. Priorities are in biologically mature stands on productive sites that can be regenerated by recommendations outlined in the General Management Prescriptions section of the NHAL Master Plan.
- Manage a small reduction of aspen acreage to northern hardwoods stands.
- Increase northern hardwoods with active management from aspen, white birch and fir-spruce types. Manage these stands for multiple age classes, tree sizes and a diversity of tree species.
- Encourage white pine and red pine components in natural stands and manage plantations for biological maturity.
- Maintain hemlock-hardwood stands at existing levels and encourage scattered hemlock in all stands.

Resource Management Prescriptions

- ALL management prescriptions for Area 1 in 2005 Master Plan apply with the addition of:
- Encourage hemlock, yellow birch, and white pine on rich upland soils. The use of various intensity thinning, shelterwood, group selection and site preparation would be employed to accomplish increased diversity of species regeneration.
- Designate the Ontonagon Block as a research overlay zone with additional objectives and prescriptions.
- Increase early successional forest types, primarily aspen, in the Ontonagon Block, as needed for representative cover types for research purposes.
- Recreation Management
- This block is best suited to passive remote recreation like hunting, hiking, fishing, and trapping.
- Hunting would not be permitted within the research areas.
- The area along highway B may provide a trail corridor linking communities as part of a network of regional biking trails.
- Access to Daizell Lake would be walk-in only as this is a very small lake (25 acres).

Research Overlay Designation

Public lands provide a wide range of opportunities, including support for research. The Department partners with universities, government, and non-governmental organizations on natural resource research projects across the state. These projects provide valuable information for land managers, resource professionals, and the public. Research in the biological sciences and natural resource management shape land management activities and policy, and enhance our understanding of biological processes regionally and state-wide. Provide opportunities for adaptive research for the biological sciences and natural resource management issues.

This block provides a unique opportunity to fulfill a recommendation of the 2012 Deer Trustee Report to research deer impacts on forest regeneration, vegetative and wildlife diversity and overall ecosystem sustainability at varied densities of deer population. The entire southern parcel is designated for research use with preliminary plans to implement two research areas, each roughly 400 acres, to enclose and assess deer population impacts. These areas would be fenced and exclude public access. Research areas would include an active forest management component to replicate forest management practices. This research is intended to continue for 30 years.

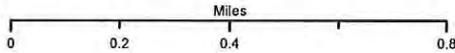
Reference: Kroll, J, Guynn, D., and G. Alt. 2012. 21st Century Model for Deer Management in Wisconsin: Final Report and Recommendations by Wisconsin White-Tailed Deer Trustee and Review Committee. Retrieved May 10, 2013 from <http://doa.wi.gov/secy/documents/cover.pdf>.

Map 1: Ontonagon River Block

Addition to Area 1: Winegar Moraines



NHALSF 103P
June, 2013



Northern Highland - American Legion State Forest

The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.



Harris Lake Block

PROPERTY DESCRIPTION

This property consists of two parcels that fall within the boundary of the NHAL State Forest totaling approximately 554 acres (See Map 4). It is located in northwest Vilas County, approximately two miles northeast of the Town of Winchester. The property includes almost all of Nell Lake frontage as well as frontage on Harris Lake and Harris Creek. The property is 43% upland forested, 30% lowland forest and 27% open lowland areas. Public road access is limited to town road, West Harris Lake Road which ends at the east border of the Nell Lake block and an easement access of unimproved woods road coming off CHY O. This access road runs through private landholdings for a mile or so and enters the northwest corner of the Harris Creek parcel. Harris Creek cuts through the northern block of ownership and does not have a crossing.

Nell Lake is surrounded by forested wetlands that are predominately black spruce swamp and semi-open muskeg. In the uplands there are stands of old growth hemlock hardwoods. The remainder of the uplands on the property are forested with previously managed stands of northern hardwoods with inclusions of remnant super-canopy white pine. Some of these stands also contain old forest characteristics. This site protects an ecologically significant stretch of undeveloped lake frontage on a large developing lake and several small undeveloped bog lakes. In addition, the old growth successional stages found here are now uncommon over most of northern Wisconsin.

Landscape Classification

The Harris Lake property is located primarily within the North Central Forest Ecological Landscape, with the southern 120 acres found within the Northern Highland Ecological Landscape. The North Central Forest is approximately 9,543 square miles (6,107,516 acres) in size, representing 17.1% of the total land area of the state. Forests cover approximately 75% of this Ecological Landscape. The mesic northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, with some stands containing scattered hemlock, yellow birch, and/or white pine pockets. The aspen-birch forest type group is also abundant, followed by spruce-fir. Forested and non-forested wetland communities are common and widespread. These include Northern Wet-mesic Forest (dominated by either northern white cedar or black ash), Northern Wet Forest (acid conifer swamps dominated by black spruce and/or tamarack), non-forested acid peatlands (bogs, fens, and muskegs), alder thicket, sedge meadow, and marshes (including wild rice marshes) are widespread in the North Central Forest.

Geology, Soils and Topography

Landforms in the North Central Forest are characterized by end and ground moraines with some pitted outwash and bedrock-controlled areas. Kettle depressions and steep ridges are found in the northern portion of the Ecological Landscape. Drumlins are important landforms in some parts of the North Central Forest. Soils consist of sandy loams, sands, and silts. Organic soils, peats and mucks, are common in poorly drained lowlands.

Lakes, Streams, and Wetlands

There are several localized but significant concentrations of glacial kettle lakes associated with end and recessional moraines, including the Winegar Moraine, which these properties are associated with. Major lakes in the area include No Mans, Rock, North Turtle and Rainbow, along with dozens of additional small lakes and ponds. The Harris Lake property contains frontage along both Nell and Harris Lakes. Forested and unforested wetlands are also widespread, with peatland types being common. Most of the property is within the Presque Isle River Watershed, with the southern reaches of the property located in the Flambeau Flowage watershed.

Current Cover Types and Natural Communities

Based on data from the previous owner's 2006 inventory, the forest and non-forest cover types, were mapped and confirmed. Natural communities include hemlock hardwoods, mesic northern hardwood forest, aspen, a small white pine stand and lowland conifer swamp communities (See Map 5). Opportunities exist for large ecological landscape of forest cover. Important forested wetland communities such as white cedar swamps and conifer swamps dominated by black spruce or tamarack are common. Other natural communities of this landscape to note are cool water streams, ephemeral ponds, and northern hardwood swamps.

Table 2. Acres of Cover Type on the Harris Lake Parcel		
Cover Type	Acres	%
Forested Types		
Black spruce	167	29
Northern hardwood	143	25
Aspen	52	9
Hemlock	47	8
Other	11	2
Total	420	73
Non-forested Types	157	27
Property Total	577	100

Source: WDNR Forest Recon Database

Recreation Facilities

The two units of this acquisition have access challenges. The current recreation use is most likely by adjoining landowners. The north unit, adjacent to Harris Lake, is surrounded by private land, MFL enrolled private land, and Harris Lake. There is legal access but it is undeveloped and remains gated. The Nell Lake unit is located at the end of a town road and access from that road without crossing private land is not possible. Both properties offer opportunities for hunting, fishing, hiking, and trapping.

Historical/Archeological

There are no known cultural or archeological features located within the parcel.

Administrative and Other Facilities

There are no administrative or other facilities present on the parcel.

Harris Lake Block – Management and Use

This block contains two units, the 115 acre Nell Lake unit and a 400 acre unit primarily north of Harris Lake. It was purchased early in 2013 from the Board of Commissioners of Public Trust Lands. The block is located in Winchester Township in far northern Vilas County.

Public access to the Harris Lake block is limited to water access (Harris Lake and Harris Creek). The Nell Lake block is accessible from adjoining lands with a conservation easement but the surrounding private ownership would prevent walk-on access to either block from public roads.

Land Management Classification

The majority of the block would be placed in the NHAL Master Plan, Forest Production Management Classification Area 1 – Winegar Moraine.

The Nell Lake Unit would be placed in the NHAL Master Plan, Native Community Management Classification Area 10, Peatland / Wetlands

Existing Area 1

Long-term Management Objectives (100 years)

- Maintain and enhance existing stands of northern-hardwoods to increase age diversity and to maintain stand health and vigor.
- Manage at a landscape level considering how these lands can complement the objectives in the adjacent Hemlock Hardwood Native Community Management Areas.
- Maintain areas of early successional forest (aspen, white birch) in mixed forest stands.
- Maintain diversity of forested and unforested wetlands.

Short-term Management Objectives (50 years)

- Develop a diversity of ages and stand sizes for aspen, white birch and northern hardwoods.
- Retain and encourage yellow birch, white pine and hardwood components on aspen dominated sites. Some harvesting of these species is permitted to meet stand goals.
- Maintain diversity of forested and unforested wetlands. Some black spruce and tamarack stands would be regenerated through active management. Priorities are in biologically mature stands on productive sites that can be regenerated by recommendations outlined in the General Management Prescriptions section of the NHAL Master Plan.
- Manage a small reduction of aspen acreage to northern hardwoods stands.
- Increase northern hardwoods with active management from aspen, white birch and fir-spruce types. Manage these stands for multiple age classes, tree sizes and a diversity of tree species.
- Encourage white pine and red pine components in natural stands and manage plantations for biological maturity.
- Maintain hemlock-hardwood stands at existing levels and encourage scattered hemlock in all stands.

Resource Management Prescriptions

- The Harris unit, 400 acres, would continue the active management and follow the prescriptions for Area 1.
- The Nell lake Unit, 115 acres, would be designated as a State Natural Area and passively managed.

Recreation Management

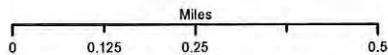
- This block is best suited to remote recreation including hunting, hiking, fishing, and trapping.
- Trail access to Nell Lake would be gained via property owned by The Last Wilderness Conservation Association (purchased with a Stewardship grant).

Map 2: Harris Lakes Block

Addition to Area 1: Winegar Moraines



NHALSF101P
June, 2013



Northern Highland - American Legion State Forest

The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.



Van Vliet Block

PROPERTY DESCRIPTION

The Van Vliet area is approximately 433 acres in size located in the township of Presque Isle in Vilas County (See Map 6). The property includes 9,435 feet of lake frontage on Van Vliet and Averill Lakes, as well as an additional 6,135 feet of frontage on four other small lakes and ponds. The property is configured as two parcels separated by interconnected Van Vliet and Averill lakes. The parcel on the west side is about 78 acres in size with upland northern hardwoods and scenic views of the lakes. The remaining acreage is on the eastern side of the lakes and includes large stands of old-growth hemlock and northern hardwood, as well as pockets of forested wetlands and bogs. Both parcels have access by town roads, East Van Vliet Road and West Van Vliet Road in the Township of Presque Isle. There are currently parking areas and trail maps located off these roads, provided by a local Friends group.

The Van Vliet property contains a significant block of previously managed hemlock-hardwoods, with some stands displaying old-growth characteristics. This is one of the largest known stands of old-growth hemlock hardwoods in this land type in Wisconsin. Also present are undisturbed black ash-white cedar swamps in kettle depressions, several small undeveloped bog lakes and 1.5 miles of frontage on Averil and Van Vliet Lakes. This site protects an ecologically significant stretch of undeveloped lake frontage on a large developing lake and several small undeveloped bog lakes.

Landscape Classification

The Van Vliet property is primarily within the North Central Forest Ecological Landscape, with a portion of Van Vliet within the Northern Highland Ecological Landscape. The North Central Forest is approximately 9,543 square miles (6,107,516 acres) in size, representing 17.1% of the total land area of the state. Forests cover approximately 75% of this Ecological Landscape. The mesic northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, with some stands containing scattered hemlock, yellow birch, and/or white pine pockets. The aspen-birch forest type group is also abundant, followed by spruce-fir. Forested and non-forested wetland communities are common and widespread. These include Northern Wet-mesic Forest (dominated by either northern white cedar or black ash), Northern Wet Forest (acid conifer swamps dominated by black spruce and/or tamarack), non-forested acid peatlands (bogs, fens, and muskegs), alder thicket, sedge meadow, and marshes (including wild rice marshes) are widespread in the North Central Forest.

Geology, Soils and Topography

Landforms in the North Central Forest are characterized by end and ground moraines with some pitted outwash and bedrock-controlled areas. Kettle depressions and steep ridges are found in the northern portion of the Ecological Landscape. Drumlins are important landforms in some parts of the North Central Forest. Soils consist of sandy loams, sands, and silts. Organic soils, peats and mucks, are common in poorly drained lowlands.

Lakes, Streams, and Wetlands

There are several localized but significant concentrations of glacial kettle lakes associated with end and recessional moraines, including the Winegar Moraine, which these properties are associated with. Major lakes in the area include Presque Isle, Crab, Amour and Horsehead, along with dozens of additional small lakes and ponds. The Van Vliet property contains frontage along Van Vliet and Averill Lakes. Forested and unforested wetlands are also widespread, with peatland types being common. These properties are within the Presque Isle watershed.

Current Cover Types and Natural Communities

Based on data from the previous owner's 2006 inventory, the forest and non-forest cover types, were mapped and confirmed (See Map 7). Forest cover is divided up as 82% upland forest, 8% lowland forest and 10% non-forest lowlands and lakes. Natural communities include hemlock hardwoods, mesic northern hardwood forest, a small white pine stand and lowland conifer swamp communities. Opportunities exist for large ecological landscape of forest cover. Important forested wetland communities such as white cedar swamps and conifer swamps dominated by black spruce or tamarack are common.

Table 3. Acres of Cover Type on the Van Vliet Parcel		
Cover Type	Acres	%
Forested Types		
Hemlock hardwood	184	43
Northern Hardwood	149	36
White Birch	11	3
White Cedar	30	7
Black Spruce	6	1
Total	380	90
Non-forested Types	45	10
Property Total	425	100

Source: WDNR Forest Recon Database

Recreation Facilities

Both the east and west units of this parcel have moderately developed trail systems that are mapped and marked. Interpretive signs are in place. The trails are managed by the non-profit group Friends of the Van Vliet Hemlocks and they funded the development of trail signs, maps, and other interpretive publications. Access to the west unit is adjacent to a town road. Trails lead from the state owned land on to private lands to the west.

On the east side the trail system is accessed from the end of East Van Vliet Road. This road passes near a number of homes and the parking lot is at the end of the town road, where a private driveway begins. The increased use of the trail system has intensified the conflict between trail users and the adjoining landowners

Both parcels are likely used for other passive recreation including hunting, fishing, hiking, trapping and skiing. The east unit provides walk-in access to a very small un-named lake.

Historical/Archeological

There are no known cultural or archeological features located within the parcel.

Administrative and Other Facilities

There are no administrative or other facilities present on the parcel.

Van Vliet Hemlocks Block – Management and Use

The 433 acre Van Vliet Hemlocks Block is located in Presque Isle Township in northern Vilas County. The east unit is 355 acres and the west unit is 78 acres. The property was purchased from the Board of Commissioners of Public Trust Lands in 2012. The Friends of the Van Vliet Hemlocks manages a network of trails on the property and provides interpretive programs and materials, including brochures and signs which support public use of this property.

Land Management Classification

The Van Vliet Hemlocks Block would be placed in the Northern Highland-American Legion State Forest (NHAL) Master Plan Land Management Classification Area 9 – Hemlock Hardwood Native Community Management Area.

Long-term Management Objectives (100 years)

- Maintain multiple sites across the NHAL landscape that support old-growth hemlock hardwood communities. These sites support very old trees, complex old growth forest dynamics and provide habitat for those species that do best in these ecological conditions.
- Use these sites as ecological reference areas and also for research, education, and interpretation
- Provide old-growth wildlife viewing opportunities and sites where people can experience the inspirational aesthetic and philosophical values associated with an old-growth hemlock forest.

Short-term Management Objectives (50 years)

- Increase the age diversity, composition, and the patch size of stands within the forested area, emphasizing hemlock, white pine, sugar maple, yellow birch and basswood.
- Increase the extent of white pine.
- Establish and maintain large amounts of coarse woody debris, numerous standing dead snags, and an age diversity of trees.
- Maintain six passively managed ecological reference sites; Catherine Lake (867 acres, includes lake and private acres), part of North Bass Lake West (213 acres), part of Sweeney Lake (60 acres), Tomahawk Lake Hemlocks (226 acres), Van Vliet Hemlocks (433 acres) and Mary Lake (44 acres).
- Maintain small areas of red oak, white birch, and aspen in the actively managed zones.

Resource Management Prescriptions for the Van Vliet Block

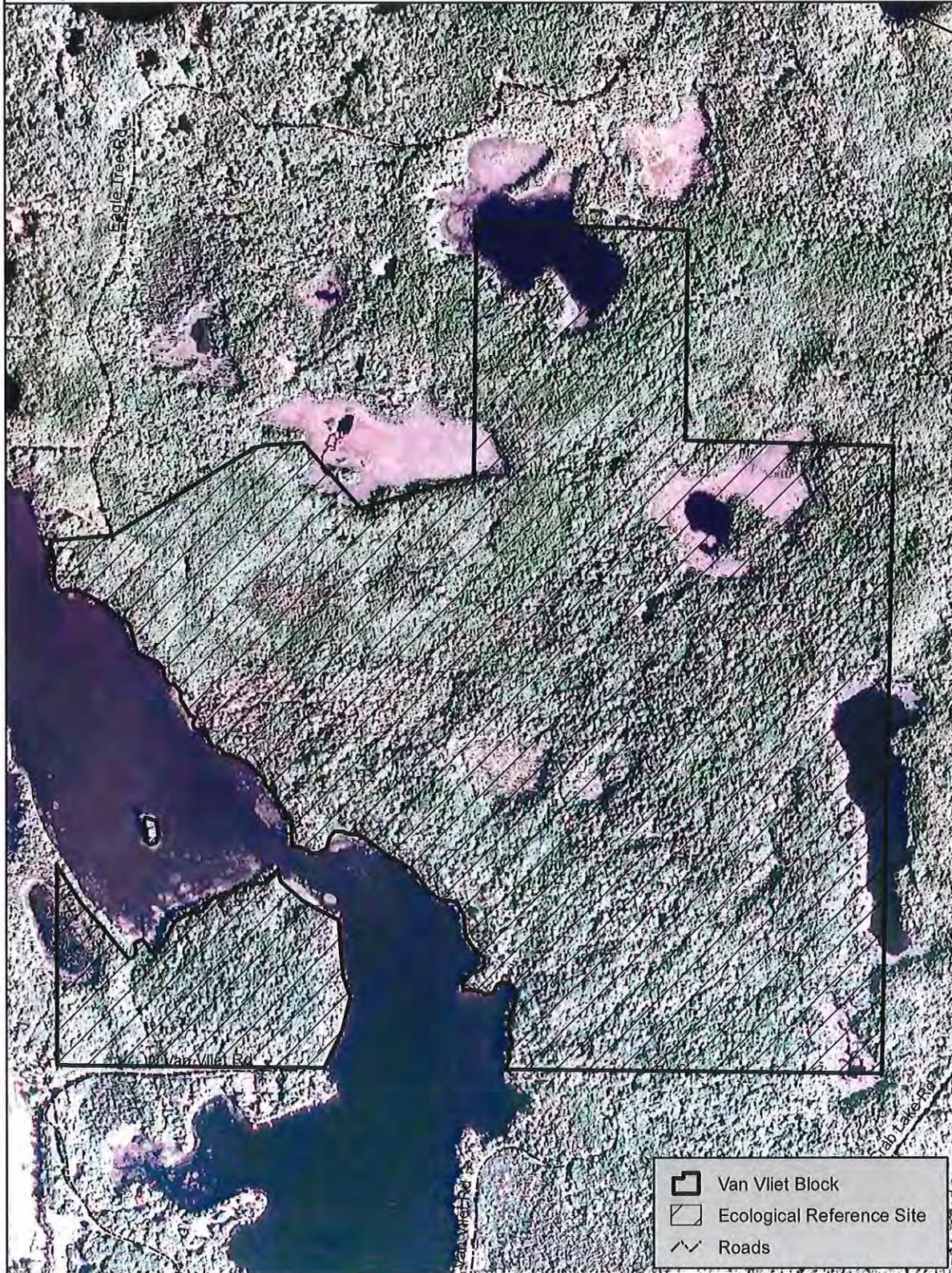
- The Van Vliet block would be designated as a State Natural area and ecological reference site and passively managed.
- The use of active management to control invasive species and maintain public safety is authorized.
- Salvage will not generally be conducted. Exceptions to the salvage restriction may be granted after review by an interdisciplinary team.

Recreation Management

- An existing network of moderately developed hiking and skiing trails would be maintained and enhanced, where necessary, to provide a sustainable public recreation feature.
- Access to the east unit trails would be sought from Crab Lake Road if possible by land acquisition.
- Land Acquisition would offer additional trail opportunities at the west unit.

Map 3: Van Vliet Block

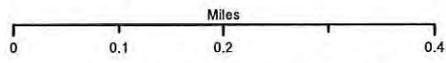
Addition to Area 9: Hemlock-Hardwood



	Van Vliet Block
	Ecological Reference Site
	Roads



NHALSF102P
June, 2013



Northern Highland - American Legion State Forest

The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.



Presque Isle Block

PROPERTY DESCRIPTION

Presque Isle Block is approximately 101 acres located on the edge of the Town of Presque Isle village (See Map 8). This parcel was formerly owned by the NHAL, was transferred to Fisheries for rearing ponds and then came back on a reversionary clause. Vilas County HWY B cuts across the eastern edge. This is the only public road access onto the property. To the south, the Town of Presque Isle has developed a Town Park and is in the process of adding trails to the State Forest property. The remaining boundary is adjacent private property owners on mostly undeveloped forest land. The South Branch of the Presque Isle River bisects the middle of the property, flowing north. 31% of this parcel is upland forest, 29% is lowland swamp hardwoods and 40% is open lowland bog and water.

Landscape Classification

The Presque Isle property is within the North Central Forest Ecological Landscape. The North Central Forest is approximately 9,543 square miles (6,107,516 acres) in size, representing 17.1% of the total land area of the state. Forests cover approximately 75% of this Ecological Landscape. The mesic northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, with some stands containing scattered hemlock, yellow birch, and/or white pine pockets. The aspen-birch forest type group is also abundant, followed by spruce-fir. Forested and non-forested wetland communities are common and widespread. These include Northern Wet-mesic Forest (dominated by either northern white cedar or black ash), Northern Wet Forest (acid conifer swamps dominated by black spruce and/or tamarack), non-forested acid peatlands (bogs, fens, and muskegs), alder thicket, sedge meadow, and marshes (including wild rice marshes) are widespread in the North Central Forest.

Geology, Soils and Topography

Landforms in the North Central Forest are characterized by end and ground moraines with some pitted outwash and bedrock-controlled areas. Kettle depressions and steep ridges are found in the northern portion of the Ecological Landscape. Drumlins are important landforms in some parts of the North Central Forest. Soils consist of sandy loams, sands, and silts. Organic soils, peats and mucks, are common in poorly drained lowlands.

Lakes, Streams, and Wetlands

There are several localized but significant concentrations of glacial kettle lakes associated with end and recessional moraines, including the Winegar Moraine, which these properties are associated with. Major lakes in the area include Presque Isle, Crab, Amour and Horsehead, along with dozens of additional small lakes and ponds. Presque Isle Parcel contains frontage along a small unnamed lake and with approximately 1,400 feet of frontage on the South Branch of the Presque Isle River. Forested and unforested wetlands are also widespread, with peatland types being common. These properties are within the Presque Isle watershed.

Current Cover Types and Natural Communities

Based on data from NHAL forest inventory, the upland areas are scattered and the lowland areas predominate the property (See Map 9). Native communities are mesic northern hardwoods and scattered aspen stands in the uplands. The swamp hardwood stands have a variety of species and occupy the areas adjacent the river and the creek and open wetland edges. Half of one of the former rearing ponds is on the property.

Cover Type	Acres	%
Forested Types		
Swamp Hardwood	30	29
Northern Hardwood	19	18
Aspen	13	13
Total	62	60
Non-forested Types		
Property Total	103	100

Source: WDNR Forest Recon Database

Recreation Facilities

The west portion of this property adjoins Town of Presque Isle land near the village that has recently been developed into a park providing a picnic shelter, beach, fitness trail and ice-skating. The north pond, on the property, has been drained. A snowmobile trail crosses the property and a road around the south pond is used for biking and hiking. The town has requested a land use agreement with the forest to develop hiking/skiing trails on the state land north of the town park. A small parcel to the east lies adjacent to Statehouse Lake and is accessible from Town property but there is no developed access there.

Historical/Archeological

There are no known cultural or archeological features located within the Presque Isle parcel.

Administrative and Other Facilities

There are no administrative or other facilities present on the Presque Isle parcel.

Presque Isle Block – Management and Use

This 101 acre block is located on the edge of Presque Isle Village and north of the town park. The parcel was re-designated state forest land after the Fisheries program abandoned use of a pair of rearing ponds on the site. This block also includes a very small parcel on Stateline Lake.

The entire block would be placed in the NHAL Master Plan Land Management Classification Area 1 – Winegar Moraines Forest Production Area.

Long-term Management Objectives (100 years)

- Maintain and enhance existing stands of northern-hardwoods to increase age diversity and to maintain stand health and vigor.
- Manage at a landscape level considering how these lands can complement the objectives in the adjacent Hemlock Hardwood Native Community Management Areas.
- Maintain areas of early successional forest (aspen, white birch) in mixed forest stands.
- Maintain diversity of forested and unforested wetlands.

Short-term Management Objectives (50 years)

- Develop a diversity of ages and stand sizes for aspen, white birch and northern hardwoods.
- Retain and encourage yellow birch, white pine and hardwood components on aspen dominated sites. Some harvesting of these species is permitted to meet stand goals.
- Maintain diversity of forested and unforested wetlands. Some black spruce and tamarack stands would be regenerated through active management. Priorities are in biologically mature stands on productive sites that can be regenerated by recommendations outlined in the General Management Prescriptions section of the NHAL Master Plan.
- Manage a small reduction of aspen acreage to northern hardwoods stands.
- Increase northern hardwoods with active management from aspen, white birch and fir-spruce types. Manage these stands for multiple age classes, tree sizes and a diversity of tree species.
- Encourage white pine and red pine components in natural stands and manage plantations for biological maturity.
- Maintain hemlock-hardwood stands at existing levels and encourage scattered hemlock in all stands.

Resource Management Prescriptions

- This area should be monitored for Emerald Ash Borer due to the high percentage of Black Ash.
- This parcel is to be actively managed under Master Plan Area 1 goals and objectives.

Recreation Management

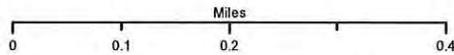
- The property currently is used for a snowmobile trail and that would continue to be permitted.
- The township has sought land use agreements for development of skiing and hiking trails and this is compatible with the land management classification and would be permitted.
- Hunting and trapping would be allowed as permitted by local ordinance and Department policy related to the proximity to trails and development.
- A boat landing would be permitted to be built on Stateline Lake.

Map 4: Presque Isle Block

Addition to Area 1: Winegar Moraines



NHALSF104P
June, 2013



Northern Highland - American Legion State Forest

The delineation of boundaries between all of the various land management classification is a general representation of those boundaries. More detailed delineation will be produced at the discretion of the department where authorized activities, management or improved on the ground information is available.



Papoose Block

Note: The Papoose Block was designated as a Forest Production Classification, Area 1 Wineger Moraines Area at the time of NRB purchase approval in May, 2013.

Papoose Lake Block – Management and Use

The 850.5 acre property is located in the Town of Winchester in northern Vilas County. Historical use was a long time ownership by the forest products industry in forest management and the land was open to public recreation.

Land Management Classification

The Papoose Lake Block would be placed in the NHAL Master Plan Land Management Classification Area 1 – Winegar Moraines Forest Production Area.

Long-term Management Objectives (100 years)

- Maintain and enhance existing stands of northern-hardwoods to increase age diversity and to maintain stand health and vigor.
- Manage at a landscape level considering how these lands can complement the objectives in the adjacent Hemlock Hardwood Native Community Management Areas.
- Maintain areas of early successional forest (aspen, white birch) in mixed forest stands.
- Maintain diversity of forested and unforested wetlands.

Short-term Management Objectives (50 years)

- Develop a diversity of ages and stand sizes for aspen, white birch and northern hardwoods.
- Retain and encourage yellow birch, white pine and hardwood components on aspen dominated sites. Some harvesting of these species is permitted to meet stand goals.
- Maintain diversity of forested and unforested wetlands. Some black spruce and tamarack stands would be regenerated through active management. Priorities are in biologically mature stands on productive sites that can be regenerated by recommendations outlined in the General Resource Management Prescriptions section of the NHAL Master Plan.

Resource Management Prescriptions

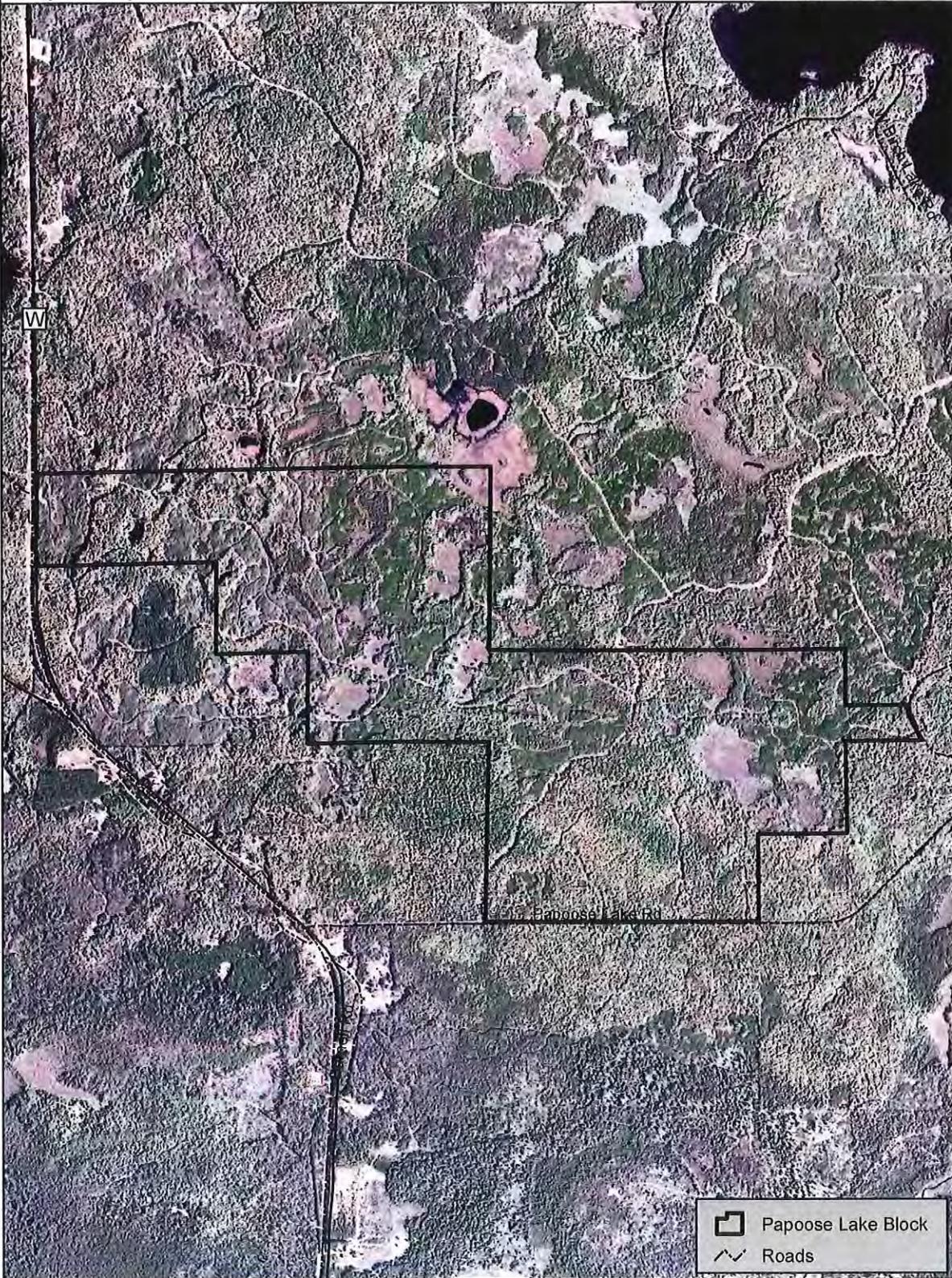
- Manage a small reduction of aspen acreage to northern hardwoods stands.
- Increase northern hardwoods with active management from aspen, white birch and fir-spruce types. Manage these stands for multiple age classes, tree sizes and a diversity of tree species.
- Encourage white pine and red pine components in natural stands and manage plantations for biological maturity.
- Maintain hemlock-hardwood stands at existing levels and encourage scattered hemlock in all stands.

Recreation Management

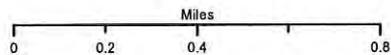
- The area currently accommodates a snowmobile trail and that would continue to be authorized.
- The adjoining landowner is actively planning and constructing public trails for hiking, biking and skiing on his property in cooperation with the North Lakeland Discovery Center. Extension of those trails onto this property with a land use agreement would be permitted.
- The property offers a corridor linking the communities of Presque Isle with Manitowish Waters as part of a network of regional biking trails.

Map 5: Papoose Lake Block

Addition to Area 1: Winegar Moraines



NHALSF113P
June, 2013



Northern Highland - American Legion State Forest

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Dunn Lake SNA

PROPERTY DESCRIPTION

Dunn Lake State Natural Area is a 954-acre property located in Vilas County (See Map 12). Dunn Lake features a mosaic of communities surrounding the lake, giving the area a wilderness aspect. The site contains an outstanding example of northern mesic forest, with super-canopy white pine above large hemlock, yellow birch, sugar maple, and basswood. This undisturbed stand lies on the northeast side of Dunn Lake and extends eastward across the Presque Isle River. Another old-growth stand lies on an upland peninsula west of Sanborn Lake. The Presque Isle River is a meandering, soft, warm water stream that supports a high diversity of native aquatic plants. Bordering the stream are excellent examples of northern sedge meadow, alder thicket, and northern wet forest communities. Recent beaver activity has altered the composition of these communities. The uplands in the southern portion have had a history of timber management. Bald eagles have nested in the large white pines.

Landscape Classification

The Dunn Lake SNA is primarily within the Northern Highland Ecological Landscape, with a minor amount within the North Central Forest Ecological Landscape. The Northern Highland is approximately 2,081 square miles (1,331,970 acres), representing 3.7% of the total land area of the State of Wisconsin.

Geology, Soils and Topography

Most of the Northern Highland is an undulating, gently rolling glacial outwash plain with many kettle lakes, wetlands, and bogs. Remnant moraines and drumlins occur often, with their lower slopes covered with outwash sands. Most soils are sands and gravels, some with a loamy mantle. Soil productivity is low compared to glacial till but relatively high for outwash sands. Wetlands are numerous; most have organic soils of peat or muck.

Lakes, Streams, and Wetlands

Dunn Lake features a mosaic of communities surrounding the lake, giving the area a wilderness aspect. The site contains an outstanding example of northern mesic forest, with super-canopy white pine above large hemlock, yellow birch, sugar maple, and basswood. This undisturbed stand lies on the northeast side of Dunn Lake and extends eastward across the Presque Isle River. Another old-growth stand lies on an upland peninsula west of Sanborn Lake. The Presque Isle River is a meandering, soft, warm water stream that supports a high diversity of native aquatic plants. Bordering the stream are excellent examples of northern sedge meadow, alder thicket, and northern wet forest communities. Recent beaver activity has altered the composition of these communities. The uplands in the southern portion have had a history of timber management. Bald eagles have nested in the large white pines.

Current Cover Types and Natural Communities

Current land cover is characterized as 48% upland forest, 34% wetlands (both forested and non-forested), 13% open water, 5% grassland and open land, and 1% urban (See Map 13).

Table 5: Acres of Cover Type on the Dunn Lake SNA		
Cover Type	Acres	%
Forested Types		
Hemlock Hardwood	178	19
Aspen	158	17
Northern Hardwood	142	15
White Birch	121	13
Black Spruce	95	10
White Pine	24	2
Total	718	76
Non-forested Types	233	24
Property Total	951	100

Source: WDNR Forest Recon Database

Recreation Facilities

This remote property has very limited access via private roads. There are no recreational developments. Most recreation is probably by adjoining landowners and their guests. The property has frontage on Dunn, McCullough, and Morton Lakes.

Historical/Archeological

There are no known cultural or archeological features located within Dunn Lake SNA.

Administrative and Other Facilities

There are no administrative or other facilities present on the Dunn Lake SNA.

Dunn Lake Block – Management and Use

This is a 954 acre parcel located in the Town of Presque Isle in far northern Vilas County. It has been managed by the Bureau of Natural Heritage Conservation. This amendment would designate the property as state forest. It would continue to be a state natural area.

Special Designation

This area has been designated a state natural area since 1990.

Land Management Classification

This area would be placed in the NHAL Master Plan Land Management Classification Area 12 – Mixed Forest Native Community Management.

Long-term Management Objectives (100 years)

- Maintain sites across the NHAL landscape with old-growth pine, oak and mixed hardwood characteristics and variable patch sizes, including some patches that are not limited to stand boundaries (i.e. may include all or portions of several forest stands). The mix of forest types reflects the diversity of the topography and site conditions across the landscape.
- Provide opportunities for research, education, and ecological interpretation as well as demonstration of old-growth mixed forest management.

Short-term Management Objectives (50 years)

- Enhance the development of a mixed forest dominated by old trees, large amounts of coarse woody debris, numerous standing dead snags, and a diversity of tree ages.
- Maintain mid-tolerant tree species composition while incorporating variable patch sizes and increase the overall age of the forest.
- Maintain four passively managed ecological reference sites – Lost Canoe (1,136 acres including 269 lake and spring acres), Allequash Lake and Pines (398 acres, includes 133 lake acres), Two Lakes Oak-Pine Forest (112 acres) and Dunn Lake (954 acres). Use these four sites as an ecological reference for adaptive old-growth management activities elsewhere in the mixed forest management area.

Resource Management Prescriptions

- Passively manage the Dunn Lake site as a reserve for northern mesic forest, northern wet forest and alder thicket, as an aquatic reserve and wetland protection area, and as an ecological reference area. Opportunities will be provided for research and education on the highest quality native northern mesic forest. Management is only authorized for control of invasive plants and animals, maintenance of existing facilities, and access to suppress fires. Salvage of trees after a major wind event is not considered compatible with the state natural area's management objectives.

Recreation Management

- There is limited public access to the Dunn Lake property. It is best suited for remote recreation like hunting, fishing, hiking and trapping. No additional recreation facilities are planned or authorized.

Map 6: Dunn Lake State Natural Area

Addition to Area 12: Mixed Forest



MARY LAKE SNA

PROPERTY DESCRIPTION

Mary Lake State Natural Area is a 44-acre property located in the township of Winchester in Vilas County (See Map 10). The landownership directly adjacent is primarily small private parcels. Past management includes the passive management of native species, which allows nature to determine the ecological characteristics of the site. Exceptions include control of invasive plants and animals, maintenance of existing facilities, and access to suppress fires. Salvage of trees after a major wind event is not considered compatible with management objectives.

- Roadside easement area and utility corridor may be managed sporadically by township and utility.
- Ditches may be plugged with woody materials during dry ditch periods to restrict flow of different water into Mary Lake.

Adjacent land uses include timber production, forestland recreation and lake recreation. The primary management is occasional inspection to search for invasive species.

Landscape Classification

The Mary Lake SNA falls into the North Central Forest Ecological Landscape. This ecological landscape encompasses 9,543 square miles (6,107,516 acres) in size, representing 17.1% of the total land area of the state. Forests cover approximately 75% of this Ecological Landscape. The mesic northern hardwood forest is dominant, made up of sugar maple, basswood, and red maple, with some stands containing scattered hemlock, yellow birch, and/or white pine pockets. The aspen-birch forest type group is also abundant, followed by spruce-fir. Forested and non-forested wetland communities are common and widespread. These include Northern Wet-mesic Forest (dominated by either northern white cedar or black ash), Northern Wet Forest (acid conifer swamps dominated by black spruce and/or tamarack), non-forested acid peatlands (bogs, fens, and muskegs), alder thicket, sedge meadow, and marshes (including wild rice marshes) are widespread in the North Central Forest.

Geology, Soils and Topography

Landforms in the North Central Forest are characterized by end and ground moraines with some pitted outwash and bedrock-controlled areas. Kettle depressions and steep ridges are found in the northern portion of the Ecological Landscape. Drumlins are important landforms in some parts of the North Central Forest. Soils consist of sandy loams, sands, and silts. Organic soils, peats and mucks, are common in poorly drained lowlands.

Lakes, Streams, and Wetlands

The 3-acre Mary Lake is one of very few known meromictic lakes in Wisconsin. Meromixis, the permanent thermal stratification of the water, results from the lake having an extremely small surface area in comparison to its depth. Mary Lake has a small 3-acre surface area but is disproportionately very deep - 67 feet. Due to the extreme relative depth in relation to surface area, watershed soils, and its protection from surrounding uplands, Mary Lake never "turns over" and circulates as the water temperature changes in the spring and fall as is typical of most other Wisconsin lakes. Instead, the lake stays stratified creating unusual chemical and biological layers. Internationally known to limnologists, extensive research has been conducted on the physical, biological, and chemical properties of the lake since the 1920's. Mary Lake is second in a chain of five interconnected lakes and is primarily fed by land runoff and inflow from a small stream that connects Mary Lake to nearby Lake Rose.

Current Cover Types and Natural Communities

Mary Lake is nestled in a small basin and surrounded by dense forest, which helps shelter the lake from wind action. The surrounding forest is primarily second-growth northern hardwood forest, swamp hardwoods, and swamp conifers (See Map 11). Dominant species include sugar maple, hemlock, and a mix of northern hardwoods. There are two rare natural communities or habitats present at the site: Northern Mesic Forest -- old-growth and Lake - Meromictic. The current cover types for this parcel are 72% upland forest, 9% lowland forest and 19% open wetlands.

Table 8: Acres of Cover Type on the Mary Lake SNA		
Cover Type	Acres	%
Forested Types		
Hemlock	23	41
Northern Hardwood	16	29
Balsam Fir	1	2
Swamp Hardwood	3	5
White Cedar	2	4
Total	44	81
Non-forested Types	11	19
Property Total	56	100

Source: WDNR Forest Recon Database

Recreation Facilities

Primary public uses on this very small parcel include recreation such as hiking, nature appreciation, education, hunting, fishing and trapping. The former residence and outbuildings are scheduled to be razed during the spring/summer of 2013. There is an existing gated road that leads to the home site.

Historical/Archeological

There are no known cultural or archeological features located within Mary Lake SNA.

Administrative and Other Facilities

There are two public, town-owned roads of 1/4 mile each located within the property.

Mary Lake Block – Management and Use

This 44 acre parcel is located in Winchester Township in far northern Vilas County. It contains two small but very deep lakes that are important for limnology research.

Special Designation

This area is already designated as the Mary Lake State Natural Area.

Land Management Classification

The Mary Lake Block would be placed in the NHAL Master Plan Land Management Classification Area 9 – Hemlock Hardwood Native Community Management Area.

Long-term Management Objectives (100 years)

- Maintain multiple sites across the NHAL landscape that support old-growth hemlock hardwood communities. These sites support very old trees, complex old growth forest dynamics and provide habitat for those species that do best in these ecological conditions.
- Use these sites as ecological reference areas and also for research, education, and interpretation.
- Provide old-growth wildlife viewing opportunities and sites where people can experience the inspirational aesthetic and philosophical values associated with an old-growth hemlock forest.

Short-term Management Objectives (50 years)

- Increase the age diversity, composition, and the patch size of stands within the forested area, emphasizing hemlock, white pine, sugar maple, yellow birch and basswood.
- Increase the extent of white pine.
- Establish and maintain large amounts of coarse woody debris, numerous standing dead snags, and an age diversity of trees.
- Maintain six passively managed ecological reference sites; Catherine Lake (867 acres, includes lake and private acres), part of North Bass Lake West (213 acres), part of Sweeney Lake (60 acres), Tomahawk Lake Hemlocks (226 acres), Van Vliet Hemlocks (433 acres) and Mary Lake (44 acres).
- Maintain small areas of red oak, white birch, and aspen in the actively managed zones.

Resource Management Prescriptions

- The Mary Lake site would be passively managed as an ecological reference site. Management is only authorized for control of invasive plants and animals, maintenance of existing facilities, and access to suppress fires. Salvage of trees after a major wind event is not considered compatible with the state natural area's management objectives

Recreation Management

- This block is best suited to passive remote recreation like hunting, hiking, fishing, and trapping.
- Both lakes will be designated "non-motor" for boats.
- Trail access to the lakes through the former home site would be allowed. Roadside access is also available from Adelaide Road.
- No additional recreation facilities are planned or authorized.



NHALSF105P
June, 2013

Miles
0 0.025 0.05 0.1
Northern Highland - American Legion State Forest

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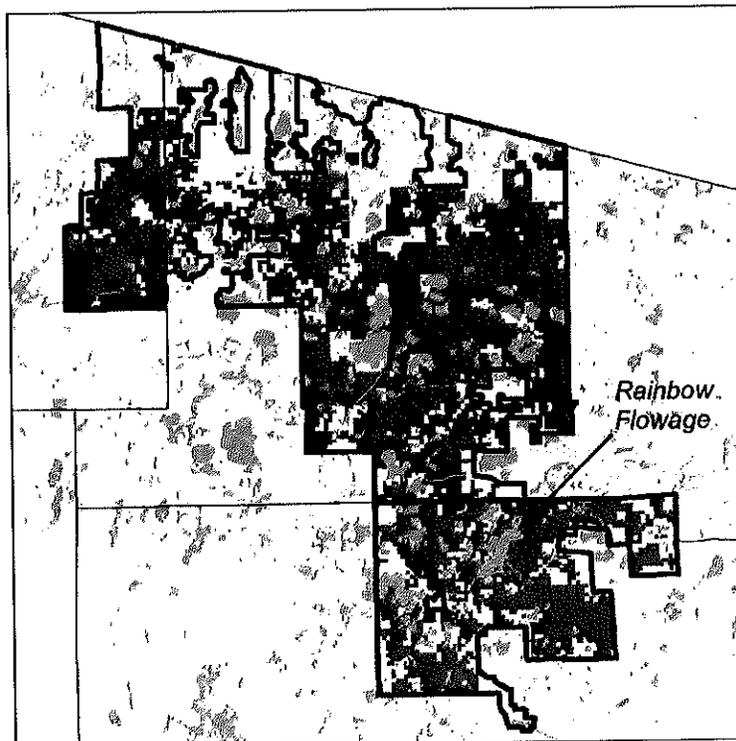


RAINBOW FLOWAGE CAMPING Proposals

The Rainbow Flowage section on the NHAL does not currently offer any camping opportunities. This amendment authorizes a mix of camping opportunities to accommodate varied users, including groups, canoeists, and longer term stays.

Camping on the Rainbow Flowage area of the NHAL State Forest is authorized as follows:

- Develop three water-access group sites accommodating up to 15 people each would be made available as "remote-reservable" and would require fee payment at the group camp rates. Stays would be limited to ten days.
- Develop 10 water-access sites similar to the canoe camping program on the NHAL. Camping would be limited to one camping party and for only one night.
- A traditional drive-to group camp is authorized when a suitable site can be found. This camp would accommodate as many as 60 people in three sites.



RANGE OF MANAGEMENT ALTERNATIVES CONSIDERED

Van Vliet Hemlocks

Agency intent at the time of purchase was to make this a state natural area. There is a limited range of management alternatives for this area based on that intent and the ecological conditions presented there. Access could be increased or decreased and the current level seems sustainable, with some trail work.

Ontonagon Block

Research interest in this block limits access and some options for management. Current information does not reveal attributes that would lead to state natural area designation. Further inventory may support parts being placed in native community management though this management remains an option with the forest production classification.

Harris Lake Block

The larger area has been actively managed and current inventory does not suggest it is a good fit for native community management.

The smaller Nell Lake block could be considered for native community management or to be passively managed within the forest production classification. Preliminary inventory suggests it contains attributes that would support designation as a state natural area. The limited access and small lake size do not support highly developed boat access to the lake. There is private ownership on the far west end of the lake so Wild or Wilderness Lake designation is not possible.

Presque Isle Block

This relatively small parcel offers few alternatives. Given the current conditions native community management would not be indicated nor would any special designation as a state natural area. Community interest in recreational development on the property is compatible with the forest type and the management described. Boat landing development on Stateline Lake is described as a "low priority".

Mary Lake Block and Dunn Lake Block

These two sites are already designated state natural areas with a limited range of management alternatives. The preferred alternatives reflect the management described in the state natural area management plan.

Papoose Lake Block

This parcel has a long history of active management. It lacks attributes that would support native community management or state natural area designation. There is strong public interest in recreational development on this property that is compatible with the forest types and management described.

Rainbow Flowage Camping Alternatives Considered

The Rainbow Flowage is fully included within the NHAL State Forest and was acquired about the time the Master Plan was being completed. There is currently no camping allowed on the state owned land on the Rainbow Flowage. A full range of options exist from continuing with no camping to developing the full spectrum of camping from traditional campsites to group sites to a variety of water-based sites. There are private campgrounds on the flowage that will accommodate the niche for traditional camping.

The region lacks group camping opportunities and this site seems better suited to a group camp than the relatively small Buffalo Lake, a few miles away.

Water-access sites are described as two alternatives that somewhat mesh with the water-accessed camping on the NHAL State Forest but add the dimension of accommodating larger groups on reserved sites so that they are able to plan and know where they will stay. This management is borrowed from the Turtle-Flambeau Flowage. An alternative to that would be to develop pairs of sites that are considered "remote reservable" and could be reserved as necessary to match group size. In addition to that opportunity the more typical NHAL-style "canoe campsites" will accommodate through-travelers on the Wisconsin River as well as one-night-only boat access campers.

Summary and Response to Comments

Public Involvement Opportunities

Beginning July 11, 2013, the Wisconsin Department of Natural Resources (DNR) began a 30-day review period on a draft Master Plan Amendment for the Northern Highland-American Legion State Forest (NHAL) and the Willow Flowage Scenic Waters Area. The draft amendment was developed following an earlier review of property assessments, issue identification, and a public involvement plan in May 2013.

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Participation

During the comment period 155 people responded, with the majority of the comments submitted using an on-line feedback form, with others submitted by written comment forms and letters, or conversing with Department staff. Among those responses, 91 were regarding the NHAL land management proposals for recent acquisitions, 22 for the NHAL camping at Rainbow Flowage, and 80 for motorized access at the Willow Flowage. Two informational public open houses were attended by more than 30 citizens at each of the meetings at Presque Isle, Vilas County and the Town of Little Rice, Oneida County. In addition, 27 individuals participated in an on-line chat session at the DNR web site.

Given the property is located within the ceded territory, government to government discussions were held with representatives of the neighboring Lac du Flambeau tribe, the Voigt Intertribal Task Force, and the Great Lakes Indian Fish and Wildlife Commission.

Summary and Response

Ninety-one comments were received regarding the proposed land management for parcels acquired since the time of the master plan was approval in 2005. Of those comments received, the vast majority focused on one parcel, the Van Vliet parcel.

The majority of the comments received regarding the Van Vliet block were opposed to the Departments proposal. There was agreement with the management objectives and prescription for the vast majority of the block but opposition in the manner in which the Department would meet management objectives using active management techniques for 73 acres on the northern portion of the block. The majority of respondents wanted natural processes to take place to reach the management objectives versus active management. In addition, concern was expressed regarding potential site disturbance if trails were used to access the block for management purposes. There was support for the Departments recommendation that the Van Vliet block be designed a State natural area and ecological reference site.

Department's Response

In response to public comments, the Department did not modify the objectives for the Van Vliet block but did modify the authorized management prescriptions, allowing natural processes to predominate in the northern 73 acres, the same management prescription as the rest of the Van Vliet block.

Ontonagon River Block, Harris Lake Block, Presque Isle Block, Papoose Lake Block, Dunn Lake SNA, Mary Lake SNA

The other six parcels received very few comments and the comments that were submitted, supported the proposed management. Comments referenced the proposed management classifications and designations are consistent and align well with the current NHAL master plan. Very few comments were received on the proposed management and research site on Ontonagon Block and those comments that were received supported efforts for integrated research and management. One comment worth noting was related to public access along the river in the Ontonagon block. To

clarify, public access to the river and along the river is not restricted in any manner by the research design or proposed management.

There was support to codifying the two existing SNAs, maintaining ecological reference sites managing some areas for early successional forest habitat and improving public access, including trails and parking for recreation and hunting.

Rainbow Flowage Camping

The majority of comments supported the proposed future camping opportunities at Rainbow flowage, including primitive and group camps accessible by water. Comments did reference the desire that campsites, when developed, are placed to avoid sensitive wildlife habitats, nest areas, and residential properties and additional enforcement may be needed.

WILLOW FLOWAGE PROPOSED MASTER PLAN AMENDMENT PUBLIC MOTORIZED ACCESS



**OCTOBER 2013
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY**

ACKNOWLEDGEMENTS

Many individuals from the Department of Natural Resources have developed this analysis through an integrated planning process. Through their hard work and expertise, these people have developed an analysis that will guide the master plan amendment for the Willow.

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Property Description

The Willow Flowage is located in west central Oneida County and includes 73 miles of shoreline (95% of which is undeveloped), 106 islands, and 7 boat landings. The property, including the flowage, encompasses more than 30,000 acres and was designated as an Outstanding Resource Water in 1997. The primary uses of the Willow include; hunting, fishing, paddling, camping and hiking. The majority of the use on the Willow focuses on the water, however the property provides snowmobile and ATV connector trails and provides lands for hunting and gathering.

Current Motorized Access

Access to the Willow property by motor vehicles is currently through a network of Town and County roads on the edge of the property boundary. One Department owned road, Iron Gate Road, located off County Highway Y in the Town of Little Rice is currently open seasonally, October through December, to highway licensed vehicles for approximately 4 miles.

An ATV trail provides just over 5 miles of designated ATV trails on the eastern portion of the Willow connecting Town ATV routes originating on Burrows Lake Road north to Willow Dam road and eventually to Cedar Falls Road.

Approximately 19 miles of designated snowmobile trails are on the Willow property. In addition, there are 100 plus miles of primitive, non-maintained, woods roads located on the Willow closed to public motorized access that are used for forest management purposes and used as hunter walking trails.

Previous Master Plan Access Adjustments

In September of 2004, a Master plan amendment was approved by the Natural Resources Board (NRB) that authorized public motorized vehicles on approximately 4 miles of Iron Gate Road starting at County Highway W from October 15th to December 5th to accommodate hunting, specifically the extended Tribal deer hunting season. The amendment specified Iron Gate Road would be open (not spur roads or trails) and the road would only be open to highway licensed vehicles.

Table 1 shows the seasonally open Iron Gate Road is 4 miles long and is maintained as a moderately developed road. In addition to the 4 miles of seasonally open road, there are approximately 111 miles of DNR roads from fully developed service roads to primitive logging roads that are closed to the public and in many cases not maintained. The majority of the 100 plus miles are in the primitive classification. The roads that are maintained to a moderately developed standard are Iron Gate Road, West Side Fire Lane and Cedar Falls Fire Lane (See Willow Flowage Access Map).

Table 1. Road Inventory within Willow Flowage.		
Type of Road/Trail	Road Standard ¹	Miles
DNR Service Road – Open Seasonally	Moderately Developed Road	4
DNR Service Road – Closed	Moderately Developed, Lightly Developed, and Primitive Roads	111
Snowmobile/ATV Trail	Lightly Developed Road	19 (5.25 miles of which is ATV trail)
Hiking Trail (designated)	Moderately Developed	5.5
¹ See Appendix A for definitions of road standards.		

Proposed Changes to Motorized Access

Public input indicates that some people are satisfied with the current level of motorized access and others would like to see expanded opportunities for motorized access, particularly for hunting access and connecting existing motorized networks. In an effort to achieve a balance between motorized and non-motorized interests, the following changes are proposed:

Iron Gate Road

Iron Gate road will be maintained at its current development level as a moderately developed road with a gravel base.

The section of Iron Gate road from County Highway Y (Gate 1) to Gate 2 will remain open for motorized use open year round, except during periods of spring breakup and periods of high snow to maintain the road base and public safety. ATV/UTVs will be allowed on this road section, starting from County Highway Y (Gate 1) to Gate 2 as long as County Highway Y, by ordinance, remains designated as an ATV route.

The section of Iron Gate Road from Gate 2 (located approximately 2 miles from County Highway Y) to McCord Road (Gate 4) will be open for motorized access, including vehicles and ATVs/UTVs beginning the Tuesday after Labor Day Weekend (typically the first week in September) until December 15th. The change will extend the existing seasonally open portion of Iron Gate Road an additional 4 miles to McCord road and extend the time period of when the road is open.

Access control structures, ranging from signs, berms or gates, may be placed along Iron Gate Road, as needed, to mitigate use of spur roads for motorized purposes. Iron Gate road may be closed, by notice of the property manager, during spring break-up, to maintain the existing road base. Periodic maintenance will be performed to sustain the road system integrity but no snow-plowing will be available.

West Side Fire Lane

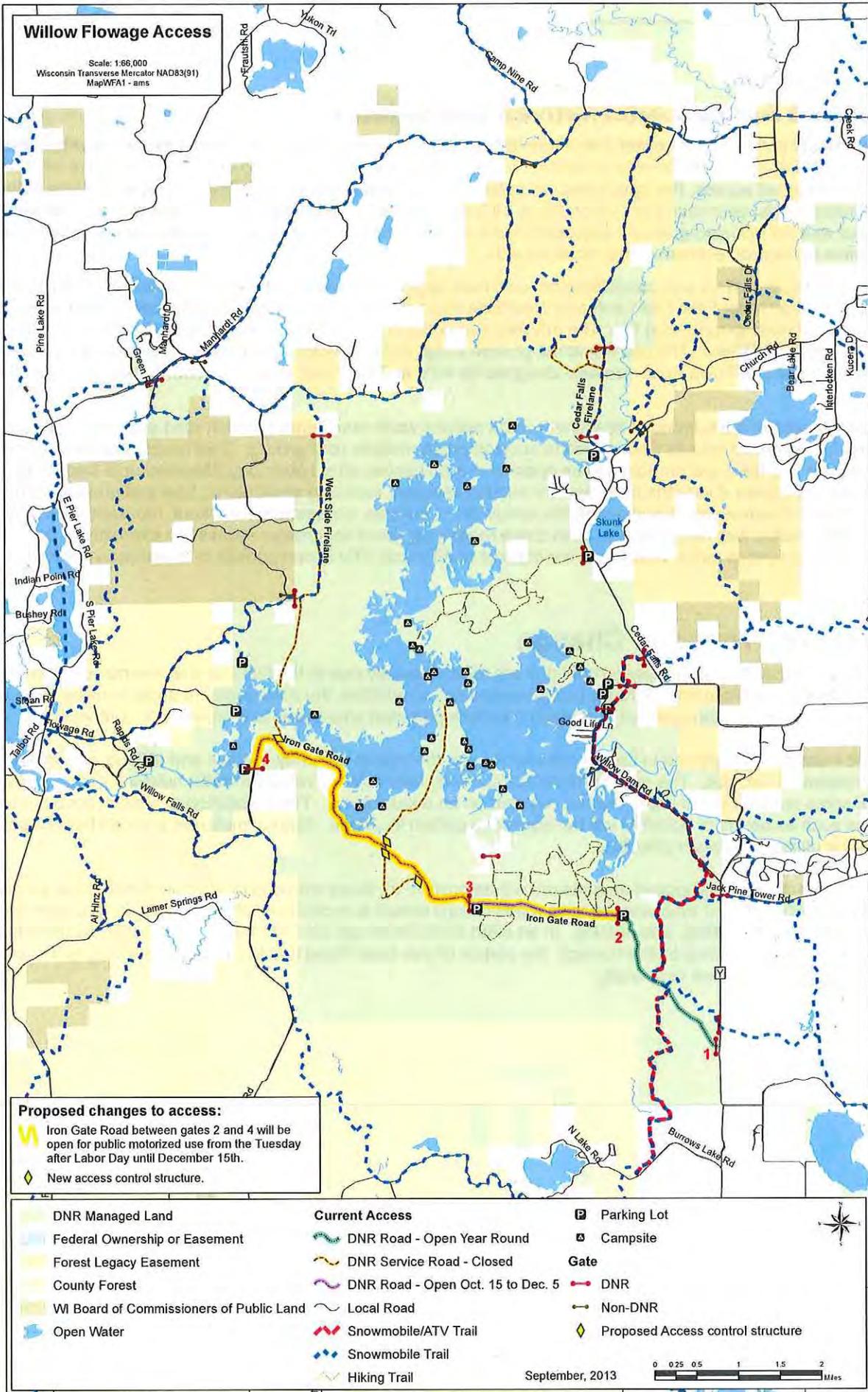
No change is recommended at this time. The Department will continue to work cooperatively with private landowners and the Forest Legacy Easement landowner to the north to evaluate options and impacts of providing motorized access from Manhardt Town Road to Department owned lands.

Cedar Falls Fire lane

No change is recommended at this time. The Department will continue to work cooperatively with private landowners to the south and the Forest Legacy Easement landowner to the north to evaluate options and impacts of providing motorized access to Department owned lands.

Willow Flowage Access

Scale: 1:66,000
 Wisconsin Transverse Mercator NAD83(91)
 MapWPA1 - ams



Proposed changes to access:

- Iron Gate Road between gates 2 and 4 will be open for public motorized use from the Tuesday after Labor Day until December 15th.
- ◆ New access control structure.

<ul style="list-style-type: none"> DNR Managed Land Federal Ownership or Easement Forest Legacy Easement County Forest WI Board of Commissioners of Public Land Open Water 	<ul style="list-style-type: none"> Current Access DNR Road - Open Year Round DNR Service Road - Closed DNR Road - Open Oct. 15 to Dec. 5 Local Road Snowmobile/ATV Trail Snowmobile Trail Hiking Trail 	<ul style="list-style-type: none"> P Parking Lot A Campsite Gate DNR Non-DNR Proposed Access control structure
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September, 2013



Motorized Access Alternatives Considered

Several different options were explored and considered regarding motorized access on the Willow Flowage. Maintaining or reducing the current level of motorized access was considered but due to the number of users who have requested expanded access, this option was not selected. Conversely, opening all DNR roads, or portions of the existing primitive roads, year-round or seasonally, to all types of motor vehicles was also considered to provide greater access but was not selected given an assessment of the condition of existing primitive roads was not completed in full to determine ecological, economic and social impacts.

The use of ATVs and UTVs was considered on each road segment for seasonal and year round use. ATV use was considered for the Cedar Falls Fire Lane and West Side Fire Lane segments, however both roads "dead-end" at the Department's ownership (property) line. The privately owned lands currently do not authorize ATV use so designating DNR roads for ATV and UTV use would not provide a regional connector. The proposal does allow ATV and UTV if the private lands and Town roads are also designed for ATV and UTV use, which the Town roads are currently designated.

Year round access and a number of seasonal access options were considered for each road segment. The seasonal limitations for motorized access were added to accommodate multiple user groups. Two roads, a portion of Iron Gate and West Side Fire lane, are proposed to be open from the Tuesday after Labor Day Weekend until December 15th to allow motorized access during the most popular hunting seasons, including small game, bow and gun deer, and bear season. Having these areas closed during the remainder of the year accommodates hikers, mountain bikers, and skiers. An alternative was considered to open these roads year round for greater access. An alternative was explored to authorize only license motor vehicle but the impacts of ATV and UTV in comparison to motorized vehicles was minimal.

Impacts of Proposed Change

The ecological impacts of the proposed changes are minimal mainly due to the fact that this amendment considers only roads that are in place and currently being maintained. In addition, the road segment under consideration is currently utilized for timber management purposes by both Department employees and timber sale contractors.

Economic impacts are expected to be low considering that the road is currently in place and utilized on a regular basis by Department vehicles. The road surfaces are currently favorable for vehicular traffic however periodic maintenance of some portions of the roads may be required on an annual basis. The installation of several access control structures such as berms or boulders will be required in certain locations. Natural materials sourced from Department lands will be utilized whenever possible.

The social impacts of this proposed amendment will be positive for those who desire increased motorized access. Approximately 100 miles of trails and primitive roads remain closed to motorized vehicles for those who seek quiet areas for hiking, biking, skiing, and hunting. In an effort to minimize use conflicts with the high-use time periods for camping, boating, and fishing on the flowage, the portion of Iron Gate Road that lies in close proximity to the waters edge is proposed to be open seasonally.

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Given the property is located within the ceded territory, government to government discussions were held with representatives of the neighboring Lac du Flambeau tribe, the Voigt Intertribal Task Force, and the Great Lakes Indian Fish and Wildlife Commission.

Willow Flowage Public Motorized Access

Approximately 80 comments were received regarding the access proposals on the Willow. The comments submitted were at times broad in nature and others were very specific to proposed road segments.

A number of comments referenced the current Master Plan and the original management intent was for low-impact recreation and to maintain a wild or wilderness-like setting. Others commented that the current plan is dated and there are existing road corridors that are being used for management purposes and could provide public motorized access with little negative impacts. Furthermore, respondents referenced the aging population, desire for hunting access, local interests and desire for connecting existing road and trail networks, and a general view that public lands should be more accessible.

Iron Gate Road

Relatively few comments were submitted with specific comments to Iron Gate road. Comments submitted were broader in nature referenced above.

The Department does not propose any changes from the draft proposal for Iron gate Road, which is described below. However, the amendment proposal does include a continuance request to address two originally proposed road segments. The proposal recommends including Iron Gate Road in the amendment continuance process. This will allow an opportunity to review the effectiveness of the Iron Gate Road opening in the fall of 2013 and the continuance mechanism provides the mechanism to propose and seek feedback on any adjustments.

In brief.....The proposed change would allow seasonal (day after labor day until Dec 15) public motorized access on a segment of Iron Gate Road totaling approximately 4 miles. A portion of Iron Gate Road is currently open year round for public vehicles and another section open seasonally. Iron Gate Road, in full, would also be open to ATV/UTVs during the same time period as vehicle access, creating an additional regional connector link using county forest and town roads to the existing Willow Flowage ATV trail already in place.

Cedar Falls Fire lane and West Side Fire Lane

A surprisingly high number of comments were received regarding Cedar falls fire land and West Side Fire lane. Comments received identified a number of complex private land dependencies and connecting roads and trails impacts. In many cases, private roads, are also designated as snowmobile trails and part of a regional network and private landowners indicated increasing public vehicle access may impact existing trails networks.

Due to a number of unresolved private land access issues, at this time, the Department is not recommending any changes to access on West Side Fire Lane or Cedar Falls Fire Lane. A recommendation is made for a plan amendment continuance to continue negotiations and resolution with private landowners. If solutions or alternatives emerge that would allow public motorized use in these locations, the Department will seek public feedback and approval.

In addition to exploring access options on West Side and Cedar Falls fire lane, the continuance would include an evaluation of Iron Gate road as well as additional access proposals as they emerge.

Appendix A: Road and Trail Standards from Chapter NR 44 – Master Planning for Department Properties

NR 44.07(3) Road and trail standards. For purposes of this section, roads and trails are classified as follows:

- (a) **Primitive road.** A primitive road shall be a temporary or permanent seasonal road with a maximum sustained cleared width normally not exceeding 12 feet, little or no roadbed grading, minimal cut and fill, a surface of primitive or native material.

Note: Due to their unimproved, rough condition, primitive roads commonly are only suitable for H/ohci's and other off-highway vehicles, and may not be negotiable by ordinary highway vehicles.

- (b) **Lightly developed road.** A lightly developed road shall be a temporary road, a permanent seasonal road or a permanent all-season road which is primarily a single lane with a maximum sustained cleared width normally not exceeding 16 feet, is lightly to well-graded with minimal cut and fill, is surfaced with primitive, native or aggregate materials except in limited special use situations where asphalt may be used, and has a maximum speed design of 15 mph.

Note: Due to the variability of roadbed conditions at different times and places, some lightly developed roads might not be negotiable by ordinary highway vehicles.

- (c) **Moderately developed road.** A moderately developed road shall be a permanent seasonal road or a permanent all-season road which typically is 2-lane, but may be one-lane, have a maximum sustained cleared width normally not exceeding 45 feet for 2-lane and 30 feet for one-lane, a well-graded roadbed and may have moderate cuts and fills and shallow ditching, has a surface of aggregate, asphalt or native material, and a maximum design speed of 25 mph.

- (d) **Fully developed road.** A fully developed road shall be a permanent all-season road with a cleared width normally of 50 feet or more, a roadbed with cuts and fills as needed, an aggregate, asphalt or other paved surface and be designed for speeds exceeding 25 mph.