

# NORTHERN HIGHLAND - AMERICAN LEGION STATE FOREST

## *AMENDMENT to the recreation portion of the 2005 MASTER PLAN*



Approved by the Natural Resources Board  
October 25, 2017

Wisconsin Department of Natural Resources



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# MASTER PLAN AMENDMENT

**Property Name:** Northern Highland - American Legion State Forest

**Date Master Plan was approved:** October 2005

## A. Overview

The purpose of this amendment is to address evolving needs and opportunities to the recreation experiences provided at the Northern Highland - American Legion State Forest (NHAL). The NHAL has long been a top recreation destination in Wisconsin and for generations has drawn campers, hunters, anglers, boaters, cross-country skiers, birdwatchers, snowmobilers, and many others to enjoy the property's deep woods and clear lakes.

The existing master plan was approved in 2005. Since that time, several trends in recreation participation, along with changes to the use and management of surrounding public lands, have placed different and new demands on the property. An additional factor is the number of local governments that now allow motorized recreational vehicles, such as ATVs and UTVs, on local roads. To adapt to these changes and to ensure that the department continues to provide high-quality experiences to NHAL visitors, this amendment makes changes to camping, non-motorized trail, motorized trail, and boating opportunities provided at the property.

The amendment is based on input and information from a variety of sources. The department sought input on potential updates to the master plan at open house meetings in April 2017 and through a public input form that was available in April and May, both in hardcopy and online formats. A total of 497 responses were received. In addition to this data set, a study of NHAL visitors had been previously conducted by UW-Stevens Point and DNR staff in 2013 and 2014.<sup>1</sup> That survey focused on the importance of the property to people and their recreation experiences. Finally, the department recently completed work on a Recreation Opportunities Analysis (ROA) for the Northwoods Region.<sup>2</sup> The results of that effort, particularly the identification of recreation needs throughout the region, were instrumental in developing the amendment.

The department hosted another open house meeting on August 31, 2017 to describe the proposed amendment and to gather public input. Seventy people attended the open house meeting and submitted 27 input forms and three letters. In addition to comments received at the meeting, 214 people provided comments about the amendment through an online comment form and an additional 26 people submitted comments by mailing in letters, emails, and hard copy input forms. The initial version of the amendment was changed to reflect public input.

This amendment does not make any changes to the land management classifications of the NHAL; it does clarify that the rustic and modern campgrounds and day use areas are all "Recreation Management Areas - Type 4" under NR 44, Wis. Adm. Code.

As frequent visitors to the NHAL well know, the forests on the property are actively and strategically managed. Department staff involved in recreation and forest management coordinate activities to ensure that visitors continue to enjoy high-quality experiences while maintaining a healthy forest ecosystem. At times, visitors will see and hear a variety of logging operations designed to keep the forest vibrant and provide a critical supply of

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<sup>1</sup> McIntyre, Laura Anderson and Melissa Baker. 2014. *Northern Highland – American Legion State Forest (NHAL) 2013 – 2014 Visitor Survey Study Report*. Wisconsin Department of Natural Resources and the University of Wisconsin – Stevens Point. 78 pages.

<sup>2</sup> See [dnr.wi.gov](http://dnr.wi.gov), keyword "ROA."

material for local mills. Occasionally, trails, campsites, and other parts of the property are temporarily closed to facilitate these forestry activities and protect visitor safety.

The 2005 NHAL master plan addresses what recreation facilities are and will be provided, where they will be located, and how they will be managed at the property. Except for the portions addressed in this amendment, the components of the 2005 master plan related to recreation use and management remain unchanged.

## **B. Amendment to the NHAL State Forest master plan**

This amendment focuses on the recreation portion of the master plan and as such, the recreation management staff on the NHAL will be tasked with implementing the proposed changes described here. Recreation management staff and supervisors will work with experts in forestry, wildlife, fisheries, rare and endangered resources, law enforcement, cultural resources, water and wetland protection, and other areas to ensure that the recreation facilities that are described here are constructed and operated in ways that provide high-quality experiences for visitors while maintaining and protecting the natural resources of the property.

**For several of the recreation facilities (including trails) in the amendment, only a somewhat general location to effectively meet a need is known. The specific locations or alignments of the recreation facilities in this amendment will be determined later and will be a function of the amount and timing of available funding, site assessments (e.g., rare and endangered species, archaeological resources, and wetlands), forestry operations and harvesting schedules, and other factors that may arise.** It is possible that several or many of the facilities or trails in this amendment will not be developed for a variety of reasons.

For example, a new group campsite is authorized at Sweeney Lake. This is a desirable place for a group campsite because the lake is entirely owned by the department, it is moderate-sized with lots of upland shore, and there are several nearby existing DNR roads that could provide access. The exact location of the campsite will be determined when it appears funding will be available; the process to identify the right place will include an assessment of forest resources and management plans, the presence of rare, endangered, archaeological or sensitive resources, habitat conditions, and other appropriate factors at that time.

As another example, the plan describes general locations for bicycle touring trails. Map H shows general locations of potential bicycle touring trails to create a number of connections between local communities and the existing network of trails. One possible connection would link the existing trail that parallels CTH K (and connects Manitowish Waters and Boulder Junction) with the DNR campground at Upper Gresham Lake. The actual location of this trail will be determined based on the locations of wetlands, road crossings, opportunities to pass by points of interest or businesses, and other factors.

In other cases, a need is known as well as the characteristics of the desired experiences, but the location(s) to best meet the need are not yet fixed. A good example is siting new boat launches. Boating has been and continues to be a popular activity at the NHAL and over time the department has needed to add additional boat access sites to meet demand.

To address the evolving and ongoing demand for water access, the amendment authorizes the department to add 30 new boat launches over time as needs and opportunities emerge. The intent is to provide additional access sites where it is needed, but not to provide developed launches at all lakes. Indeed, a primary goal for the NHAL is to provide a range of types of access to the over 900 lakes within the NHAL boundary – from remote undeveloped lakes without any improved access to large lakes with multiple developed boat launches. A set of factors that the department will consider when evaluating the appropriateness of constructing a new boat launch is described on page 16.

A final example is the case where a recreation need is known as well as the characteristics of the desired experiences, but the location(s) to best meet the need are dependent on the actions of other parties. The desire

to have a network of ATV/UTV routes that provide connections east-west and north-south across the NHAL is a prime example. Some existing ATV/UTV routes are currently available to riders on local roads. Based on a preliminary evaluation of DNR roads that intersect with these routes, the amendment designates about 42 miles of existing DNR roads as ATV/UTV routes to extend the network (Map G). Additional assessments of these routes (and other nearby DNR roads) with DNR staff, ATV/UTV clubs, and local officials are needed to ensure that the most appropriate roads are ultimately selected, but these appear to be a good start to help make connections across the NHAL.

In the future, local governments may designate additional ATV/UTV routes on their roads, which in turn influences which DNR roads would make the most sense for the department to designate as routes to continue building connections across the property. To meet these future opportunities, in addition to the 42 miles of DNR roads to designate as routes as part of this amendment, this amendment authorizes the department to designate an additional 160 miles of ATV/UTV routes and trails on existing DNR roads that help build the overall network and that meet certain criteria.

The following changes to the existing master plan are authorized:<sup>3</sup>

### **1. Camping opportunities.**

Historically, camping at the NHAL focused on providing relatively simple accommodations in campgrounds nestled along lakes. As the property's popularity has grown over the decades, campgrounds have been upgraded and expanded. Currently, there are four modern and 14 rustic campgrounds.<sup>4</sup> Modern campgrounds on the property typically have more than 75 campsites, paved roadways, flush toilets, shower buildings, and dump stations, but no electric hook-ups. Rustic campgrounds typically have 20 to 70 campsites, usually with wider spacing than modern campgrounds, and minimal facilities such as hand-pumped water and vault toilets.

Several factors drove the need to amend the camping portion of the 2005 master plan. The demand for camping has continued its decade's long evolution. In the past, most campers visiting the NHAL slept in tents on the ground. Now, many prefer RVs, pop-up campers, trailers, and other similar motor vehicles. In addition, demand for more conveniences, such as showers and flush toilets, at campgrounds remains strong.

The recently completed Recreation Opportunities Analysis found that there is a high need for both primitive and developed camping facilities in the Northwoods Region. Both types of camping experiences are provided at the NHAL and it is the department's experience that the more developed campgrounds here are in substantially higher demand than those with more basic accommodations.

As more and more campers shift to RVs and other types of campers, there is increasing demand for electricity to power various items. Because electric hook-ups are not currently provided at any of the NHAL campgrounds, many campers in RVs and other campers use generators during their stays. Although generator use is limited to the hours of 10:00 a.m. to 5:00 p.m., they can detract from the camping experience of visitors that do not use them. The department will seek ways to reduce the use of generators at the campgrounds in the NHAL over time.

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<sup>3</sup> Appendix 1 contains a table summarizing the changes to the recreation facilities of the 2005 NHAL master plan.

<sup>4</sup> A fifth modern campground is authorized at Carrol Lake to replace the existing rustic campground that is planned to be converted to a day use area (picnic area).

One of the unique niches that the NHAL has long filled is providing rustic campsites on and near the many clear lakes that dot the property. As more and more campers use RVs, pop-up campers, trailers, and other similar motor vehicles, those pursuing more traditional “car camping” and sleeping in tents have voiced a desire for campgrounds that are quiet (without generators powering televisions, radios, and other electrically-powered conveniences).

The following changes to the 2005 master plan are authorized:

Modern campgrounds<sup>5</sup>

The department will convert three existing rustic campgrounds (Indian Mounds, Sandy Beach, and Upper Gresham) to modern campgrounds (Map I). As a result of this amendment, eight<sup>6</sup> modern family campgrounds with a total of 452 existing campsites are authorized. The 2005 master plan authorized an additional 179 sites over these campgrounds. Based on visitation patterns, topography and landscape setting, not all of these are practical or needed. In addition, in order to bring the spacing between campsites into alignment with department policy, not all of these additional campsites are possible. This amendment reduces the number of authorized campsites at modern campgrounds by 39. This will result in a total of 592 campsites (existing plus authorized but unbuilt). The facilities at modern campgrounds will continue to be upgraded over time as funding allows. Improvements can include new or expanded shower buildings, flush toilets, dump stations, electric hook-ups, paved roads and bicycle trails, and other allowable amenities.<sup>7</sup>

The eight modern campgrounds are classified as Recreation Management Areas – Type 4 setting under NR 44.06 and NR 44.07.

Rustic campgrounds<sup>8</sup>

There are currently 408 campsites at the rustic campgrounds. The 2005 master plan authorized an additional 70 campsites at these campgrounds. Based on visitation patterns, these sites are no longer needed. Adding more campsites to these campgrounds would likely not improve management efficiency. As with the modern campgrounds, there are several places in the rustic campgrounds where the campsites are too close together and additional spacing is needed. The department will seek to relocate some of the existing sites to meet spacing goals and does not need additional capacity. As

**CHANGES TO CAMPING OPPORTUNITIES AT THE NHAL:**

- Convert three rustic campgrounds to modern campgrounds.
- Maintain the existing campsites within the modern campgrounds. Reduce the number of authorized (but not yet built) campsites from 179 to 140.
- Maintain the authorization to convert the existing rustic campground at Carrol Lake to a day use area and to establish a new modern campground on the east side of the lake.
- Maintain the existing campsites within the remaining rustic campgrounds. Eliminate the existing authorization to build additional 70 campsites at the rustic campgrounds.
- Designate two rustic campgrounds, with a total of 77 campsites, as quiet areas (no generators or amplified sound allowed).
- Add two new group campsites.
- Increase the number of primitive campsites: 28 new non-reservable water-access campsites and 10 new reservable water-access campsites.
- Eliminate the authorization to build a 10-unit rustic, backpack campsite.
- Eliminate the authorization to build an equestrian campground.

<sup>5</sup> Modern campgrounds typically have 75 or more campsites and provide a moderate to relatively high level of user comfort and convenience. The following types of facilities are often provided at modern campgrounds: electric hook-ups, pressurized water supply, flush toilets, shower buildings, and a dumping station on-site or nearby.

<sup>6</sup> The 2005 master plan calls for the existing 19-unit campground at Carrol Lake to be converted into a day use area and a new 60-unit modern campground to be constructed at a more suitable location on the east side of the lake. This amendment makes no changes to that proposal.

<sup>7</sup> See Wis. Stat. s. 23.01(15) and NR 44.07(7), Wis. Admin. Code.

<sup>8</sup> Rustic campgrounds typically have fewer than 75 total campsites and provide basic user needs and comforts. The following types of facilities are often provided at rustic campgrounds: tent pad, fire ring, picnic table and parking for a vehicle and trailer or a RV unit, a hand pump water supply, and vault type toilets.

a result, this amendment eliminates the authorization for these 70 campsites and has a new authorization of 389 campsites.<sup>9</sup>

Section NR 45.04(3)(e), Wis. Adm. Code, prohibits anyone from running an electrical generator for day-use or camping on department-managed lands unless the property manager has issued a written permit to allow it. Although the department's general policy is to limit the use of generators at campgrounds without electricity to those people with a medical condition requiring the use of electric devices, programs have flexibility in developing guidance to property managers to balance the needs of day-users or campers with the serenity that other guests expect at our properties. At the NHAL, the policy has been to allow generators between the hours of 10:00 a.m. and 5:00 p.m. without the need for a permit. The use of generators has increased over the last two decades at the property.

To meet the demand for quiet campgrounds, this amendment designates the Cunard and Starrett campgrounds as quiet zones.<sup>10</sup> These sites have a combined total of 77 campsites. Boaters on both Cunard and Starrett lakes are restricted to using only electric motors. The remaining rustic campgrounds, with a combined 261 existing campsites, will operate following existing policies.

The ten rustic campgrounds are classified as Recreation Management Areas – Type 4 setting under NR 44.06 and NR 44.07.

#### Group campsites<sup>11</sup>

Currently, two group campsites exist – one at Jag Lake and the other at Big Muskellunge Lake – and both are heavily used. These sites are occupied nearly the entire camping season and there is clearly demand for more group camping opportunities on the property. A third group site was authorized in the 2005 master plan on the north shore of Buffalo Lake. A fourth group site, at the Rainbow Flowage, was authorized in an amendment that was approved in 2013.

Upon further evaluation, various factors lead the department to conclude that the Buffalo Lake site is no longer a desirable location. The potential area for the campsite is limited in size and the lake already experiences a high level of use from the existing campground and from private land holdings on the lake. This amendment eliminates the authorization to construct a group campsite at Buffalo Lake, retains the authority to construct a group site at the Rainbow Flowage, and authorizes the construction of two additional group sites; one at Sweeny Lake and another at Cunard Lake. Both of these lakes are entirely owned by the department and have several stretches of upland shorelines that could provide high-quality campsites. By this amendment, the existing campground at Cunard Lake is designated as a quiet zone. The group site here will be located to have minimal impact on the existing campground and may be smaller than typical for group sites.

Thus, in total, the department has the authority to operate five group campsites on the NHAL State Forest. The group campsites are classified as Recreation Management Areas – Type 4 setting under NR 44.06 and NR 44.07.

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<sup>9</sup> This number does not include the 19 campsites that currently exist at the Carol Lake rustic campground that will be converted to a modern campground.

<sup>10</sup> See NR 45.04(3)(k), Wis. Admin. Code.

<sup>11</sup> Group campsites typically accommodate 50 or more campers and have basic accommodations. These sites often have open areas for many tents to be placed, picnic tables and fire rings, hand pump water supply and vault type toilets. Group campsites provide an important camping opportunity for large groups to enjoy rustic camping experiences while not affecting other campers.

### Primitive and other camping<sup>12</sup>

One of the unique opportunities at the NHAL is to camp at a site that is only accessible from the water. Campers access these sites from canoes, kayaks, or other boats. The existing sites are well used and the department believes that providing additional opportunities will prove popular. One hundred two (102) canoe and reservable-remote campsites are currently authorized by the 2005 master plan. The 2013 amendment authorized an additional three reservable, water-access group sites (accommodating up to 15 people each) and 10 water access sites on the Rainbow Flowage. Currently, a total of 109 sites exist.

Because these sites can be accessed by various water-based means (not just canoes), this amendment renames these sites as “non-reservable, water-access campsites” and “reservable, water-access campsites.” To meet the growing demand, the amendment increases the number of non-reservable, water-access sites from 102 to 130 and the number of reservable, water-access sites from 21 to 31. The non-reservable, water-access campsites and reservable, water-access campsites are classified as Recreation Management Areas – Type 3 setting under NR 44.06 and NR 44.07.

No changes will be made to the existing opportunities for dispersed backpack camping or the dispersed, remote “deer camps” that have historically been set up during the fall deer hunting season. Although the public input during the ROA process found a strong demand for more primitive camping opportunities, the department’s experience at the NHAL is that there is little, if any, interest in a designated rustic backpack camp site. It is likely that this sort of camping experience is adequately addressed by the dispersed backpack camping system that is in existence at NHAL. As a result, the previously authorized (but unbuilt) 10-unit site is removed from the master plan by this amendment.

The demand for an equestrian campground has not materialized and as such the previously authorized (but unbuilt) horse campground is deleted from the master plan by this amendment.

## **2. Non-motorized trail opportunities.**

For generations, residents and vacationers have enjoyed hiking and walking in the NHAL woods. Hiking opportunities are plentiful with over 90 miles of trails currently provided. An additional 25 miles are authorized in the 2005 master plan at two sites. With the Sandy Beach campground being upgraded to a modern campground there is a need to add additional hiking trails there to supplement visitor experiences.

Although biking has historically occurred in the area, the recent construction of paved bike trails has become a large draw. The first paved trail, constructed in 1997 from the North Trout Lake campground to Boulder Junction, proved very successful. Since then, using a combination of local, state, federal, and private funds, approximately 50 miles of bicycle touring trails have been constructed along road rights-of-way linking campgrounds and sites on the NHAL with local communities. These trails are cooperatively maintained by the department and local communities. They are heavily used by visitors and residents.

### **CHANGES TO NON-MOTORIZED TRAIL OPPORTUNITIES AT THE NHAL:**

- Add up to 5 miles of hiking trails.
- Add up to 30 miles of constructed mountain biking trails and up to 20 miles of off-road bicycle trails.
- Add up to 60 miles of bicycle touring trails, including the ability to construct trails on the property outside of public road rights-of-way.

<sup>12</sup> Primitive campsites are single, remote sites that are typically widely dispersed. Facilities are limited to a fire ring, picnic table and box latrine, except for designated disabled accessible sites which may have an improved surface, improved water access and other appropriate facilities. Three types of primitive camping opportunities are provided on the NHAL: water-access reservable and non-reservable sites, dispersed backpack camping, and dispersed deer hunter camping.

The existing master plan authorizes the DNR to cooperate with local communities in developing bicycle touring trails (referred to in the 2005 master plan as road bike trails) along road rights-of-way through the forest. The department wishes to help expand this network by linking together more of the campgrounds and local communities (including communities beyond the NHAL boundary). Based on the opportunities to link campgrounds and picnic areas to the existing trail network and its understanding of existing proposals and community interests in the bike trail network, the department expects that an additional 60 miles of bicycle trails on DNR land within the NHAL will prove beneficial to the agency and local communities. The department also believes there is value in potentially locating some stretches of the bicycle touring trails outside of road rights-of-way in locations where they will have minimal impacts on forest habitats or forestry operations.

Many of the bicycle touring trails in the NHAL are operated under agreements with local communities. The department supports allowing motor bicycles (sometimes referred to as electric bikes, or E bikes) on the bicycle touring trails, but will need to work with these communities to assess their interest in allowing motor bicycles on the existing and future touring trails.

In addition to bicycling on paved trails, there is growing interest in adding more off-road and constructed mountain biking opportunities at the NHAL. Currently, there are three off-road bicycle trails systems (McNaughton, Madeline, and Razorback Ridges) and one mountain biking system (Raven) on the property.

The department entered into an agreement to allow a partner to develop off-road and constructed mountain bike trails, in part, on department land between Winchester and Manitowish Waters. This complex, known as WinMan, is very popular and the owners are evaluating options to expand operations. In addition, there is interest by several communities to develop off-road bicycle trail networks using combinations of existing primitive logging roads and newly constructed trails. The department will continue to enter into land use agreements with partners to facilitate bicycle use on the NHAL.

Given its northern setting, the ample and predictable snow fall, and the quality of trails, the NHAL has long drawn cross-country skiers during the winter. Forty miles of cross-country ski trails are groomed on the property and many additional miles are groomed by clubs or other groups. In addition, dozens of miles of groomed trail are open to the public on neighboring lands. The department will continue to work with partner groups to maintain existing and potentially additional groomed trails on the property through agreements.

Winter biking on “fat tire” bikes has increased in popularity over the last several years. There is increasing demand to accommodate this activity and to allow partner organizations to groom trails. The department will enter into land use agreements with partners to facilitate winter biking on the NHAL.

The following changes to the 2005 master plan are authorized:

#### Hiking

The amendment authorizes up to five miles of hiking trails at the Sandy Beach picnic area and campground. Five miles would provide campers and picnickers an enjoyable experience and is consistent

### **DIFFERENT TYPES OF BICYCLE TRAILS**

Over the years, the diversity of types of bikes and riding experiences has grown considerably. The types of bicycling trails described in this amendment include:

#### Bicycle touring trails

Easier trails that are generally level, paved or surfaced with compacted screenings, and appropriate for all ability levels including young children. In many parts of the state, these trails are located on former railroad corridors (rail-trails). In the NHAL, almost all existing trails are paved and most run parallel to roads.

#### Off-road bicycle trails

Intermediate-level trails, often meandering through natural settings with some topography. These trails can have a variety of surfaces, from native soil to wood chips. These trails are appropriate for more adventurous riders on hybrid or mountain bikes.

#### Constructed mountain bike trails

Specially constructed, challenging, narrow-width trails built to the trail standards of the International Mountain Bicycling Association (IMBA).

#### Winter/fat-tire bike trails

Trails designed primarily for winter use by bikes with wide treads (3” or greater). Trails can cover a wide range in level of difficulty.

with the capabilities of the surrounding area. These trails will be classified as lightly developed under NR 44.07.

### Bicycling

The amendment authorizes up to 60 miles of new bicycle touring trails, with the department continuing to collaborate with local communities and groups to construct and maintain these trails. Many of the trails will link sites on the property with nearby communities or link communities together. As such, these trails are likely to be located parallel to existing local roads. However, these trails may be sited outside of the road rights-of-way to provide bicyclists with a more nature-based experience as feasible and desired, so long as they are designed to have minimal impacts to habitats, forestry operations, or sensitive resources. An example of this approach is the trail that runs parallel to STH 47 near the Indian Mounds campground. The bicycle trail here is about 100-200 feet outside of the right-of-way in stretches and separated from the roadway by a swath of trees.

The existing and new bicycle touring trails that the department controls are authorized to allow motor bicycles, contingent on the concurrence by those local governments that the department has entered into land use agreements for the use and management of the trails.<sup>13</sup> Any bicycle touring trails open for motor bicycles will be appropriately signed for this use.

The bicycle touring trails will be classified as moderately or fully developed under NR 44.07, with the anticipation that many of these trails will be paved. A list of potential trails and their approximate distances, and a map of their general locations are provided in Appendix 1 and Map H.<sup>14</sup> The locations of the potential bicycle touring trails are conceptual in nature and are not intended to prescribe specific locations. Actual alignments of these trails will be determined in the future when funding is available and will involve an evaluation of a variety of factors.

The amendment authorizes up to 15 miles of off-road and constructed mountain biking trails at the Muskie Mountain site. This site has considerable topography and offers an excellent opportunity to develop both technically challenging as well as more moderate biking opportunities. Fifteen miles would provide a high-quality experience and is suitable for the site. The department will continue working in partnership with local clubs and communities in the development and management of these trails. These trails will be classified as primitive or lightly developed under NR 44.07.

The amendment authorizes up to an additional 15 miles of off-road and constructed mountain biking trails to be established on department land adjacent and connected to the WinMan trail complex. Department lands here are capable of supporting this use and the additional mileage would add to the quality of the riding experience provided. These trails will be classified as primitive or lightly developed under NR 44.07.

To meet the demand for off-road bicycle riding on trails that wind through the forest, the amendment authorizes the construction of up to 20 miles of primarily native-surface trails on DNR lands. This amount of trail will enable the establishment of two or three networks of trails of adequate size to provide high-quality experiences. The department will continue working in partnership with local clubs and

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<sup>13</sup> NR 45.05(3)(em) enables the department to allow motor bicycles on trails that are specified in a master plan.

<sup>14</sup> The mileage figures shown in the table in Appendix 1 are estimates. The intent of authorizing additional miles of bicycle trails is that the authorized number (in total) may be applied in different places on DNR lands within the NHAL boundary. That is, the department would not need to seek an amendment or variance if a trail from one destination to another listed in the table ended up being longer than the estimate listed. The department would need to seek a revision to the master plan if it wished to have more than 60 miles of bicycle touring trails constructed on the property.

communities in the development and management of these trails. These trails will be classified as primitive or lightly developed under NR 44.07.

Cross-country skiing, snowshoeing, and winter fat-tire biking

The amendment authorizes the grooming of 12 miles of trails for winter/fat-tire biking at the existing Lumberjack and Shannon trail networks. To meet the demand for winter activities, the amendment authorizes the grooming of the existing and new bicycle touring, off-road and mountain biking trails for cross-country skiing, snowshoeing, or winter fat-tire biking.

**3. Motorized access and recreation opportunities.**

The NHAL has a large number of existing roads, most of which are used to support logging and other forestry activities. Public access to roads on the NHAL and their management classification<sup>15</sup> are:

ROAD STANDARDS	PUBLIC ACCESS			Total
	Open to licensed, street-legal vehicles (miles)	Open seasonally to licensed, street-legal vehicles (miles)	Closed to licensed, street-legal vehicles (miles)	
Fully developed road	21	3	0	<b>24</b>
Moderately developed road	10	19	2	<b>31</b>
Lightly developed road	21	129	59	<b>209</b>
Primitive road	453	192	517	<b>1162</b>
<b>Total</b>	<b>505</b>	<b>343</b>	<b>577</b>	<b>1425</b>

The department addresses motorized use of department roads in the master planning process and the amendment is an opportune time to examine and update what types of motorized vehicles are authorized on which DNR roads on the NHAL. This amendment establishes that the department’s goals for public motorized access on the NHAL are to:

- Provide public access on roads to developed sites and designated use areas (e.g., campgrounds, picnic areas, and boat launches).
- Provide public access on a network of roads – ranging from developed to primitive – to outlying parts of the property as a means to facilitate auto touring as well as to access sites in more remote areas (e.g., carry-in canoe launches, trail heads, and prime hunting locations).
- Provide motorized recreation opportunities for snowmobiles, ATV/UTVs, off-highway motorcycles, and licensed 4-wheel drive vehicles, with a focus on connecting regional trail and route networks.

Many of the roads on the NHAL support forest management activities, particularly logging. As different forest stands are selected for harvests, the roads in the area (most of which are typically in a primitive condition) are often cleared of debris and re-graded to accommodate haul trucks and machinery. When harvesting is complete, these roads are typically used by visitors interested in collecting firewood (with a permit), picking berries and mushrooms, hunting, or other activities. Over time, these roads revert back to their earlier condition.

The 2005 master plan authorizes the department to designate ATV trails and routes on the NHAL when appropriate locations are identified. After approval of the master plan in 2005, the department, in

<sup>15</sup> See NR 44.07(3) for definitions of the different road classifications.

collaboration with a stakeholder group comprised of local communities, clubs, and government representatives, undertook a process to identify potential trails and routes on the property. Emphasis was placed on opportunities to facilitate the connection of existing regional trail networks. In April 2008, the department presented the Natural Resources Board with two sets of options to establish ATV riding opportunities at the NHAL, but recommended that the NRB not approve either because of their high costs and other logistical issues. The NRB did not approve the proposed ATV trails and routes.

The NHAL boundary includes parts or all of 15 towns. In 2005 when the master plan was approved, few town governments had designated their roads as ATV/UTV routes and as a result there were very limited options on the NHAL to help connect regional trail/route networks. ATV riding, and increasingly UTV driving, are popular activities in the region and many of the towns where the NHAL is located have now designated ATV/UTV routes on their local roads. Several others are considering designating routes, too. In addition, several towns adjacent to the state forest have also designated ATV/UTV routes. The department anticipates that more town boards in the region may pass resolutions designating town roads as ATV/UTV routes. As a result, there are many more options now (and likely more in the future) than there were in 2005 to use DNR roads to help link a larger regional ATV/UTV network.

The NHAL boundary includes parts or all of these towns (bolded names have at least one road within the town open for ATV use):

Oma	Plum Lake
<b>Mercer</b>	<b>Arbor Vitae</b>
Winchester	<b>St. Germain</b>
Presque Isle	<b>Woodruff</b>
<b>Land O'Lakes</b>	<b>Newbold</b>
<b>Sherman</b>	<b>Sugar Camp</b>
Manitowish Waters	<b>Lake Tomahawk</b>
Boulder Junction	

Towns surrounding the NHAL that allow ATVs or UTVs on town roads include:

<b>Conover</b>	<b>Minocqua</b>
<b>Phelps</b>	<b>Woodboro</b>
<b>Three Lakes</b>	<b>Cloverland</b>

In addition to linking regional trail networks, there is growing interest in using ATV/UTVs and other four-wheel drive vehicles to access more remote portions of the property for hunting, wildlife watching and other activities, particularly in the fall. This demand has grown, and is likely to continue growing, as the state's population ages and as more people with various mobility limitations pursue experiences in remote outdoor areas.

Another form of motorized recreation that is gaining in popularity in the region (and throughout the state) is off-highway motorcycle (OHM) riding. There is a wide range of motorcycles that can be driven "off-highway," including those that are licensed, street-legal vehicles (sometimes referred to as dual-sport motorcycles) and those that are

#### WHAT'S THE DIFFERENCE BETWEEN....

##### Road:

Department roads vary in their condition and in amount or type of public access.

Condition – can range from primitive surface to fully-developed paved roads.

Public access – can be open, closed, or seasonally open (in the NHAL these are mostly roads open in warm weather months but are snowmobile trails or accessed from snowmobile trails in the winter).

Local, county, and state roads also vary in their level of development.

Open DNR roads and local, county and state roads are open to all vehicles registered with the Wisconsin Department of Transportation (they are commonly referred to as "street-legal vehicles").

##### Trail:

A linear feature designated for specific recreation uses such as hiking, bicycling, ATV riding, horseback riding, or off-highway motorcycle riding. Some types of activities require registrations to access public trails or routes (e.g., ATVs, bicycles and off-highway motorcycles). These registrations are sometimes referred to as "stickers."

##### Route:

A road that is open to street-legal vehicles registered with the Wisconsin Department of Transportation that is also designated by the controlling authority for use by a specific use, such as ATV, UTV, or off-highway motorcycle.

##### Tour:

A formal or informal collection of coordinated roads, routes, and/or trails intended to provide users with an enjoyable, well-designed trip. In many cases these may be mapped or signed.

not registered with the Wisconsin Department of Transportation (and thus not street-legal) but are registered with the DNR as recreational motorcycles (e.g., dirt bikes). Licensed, off-highway (dual-sport) motorcycles are allowed on all of the approximately 505 miles of DNR roads open to street-legal vehicles; unlicensed motorcycles (or other unlicensed vehicles) are not allowed on these roads. "Off-highway" does not mean "off-trail riding" or "free riding," which is allowed on some designated portions of some public properties (notably in western states). Many dual-sport motorcycle riders piece together longer-distance tours that combine stretches on private and public roads and trails.

A third type of motorized recreation in demand in the region is 4-wheel drive (4WD) vehicle driving. As with motorcycles, there is a wide range of 4WD vehicles that are used in this activity; some are licensed and street legal, others are not. Similarly, there is a range of desired experiences. Some participants wish to drive on rough, primitive roads in remote areas while others seek challenging, slow-moving, steep climbing adventures that test their driving abilities and their vehicle's performance. Licensed, 4WD vehicles are allowed on all of the approximately 505 miles of DNR roads open to street-legal vehicles.

In addition to the NHAL, there are opportunities for motorized recreation on forest roads on County Forest lands adjacent to and near the NHAL, on the Chequamegon-Nicolet National Forest, and on public lands in Michigan's Upper Peninsula. As a consequence, there are more opportunities now than in the past for the NHAL to provide important linkages in the regional motorized recreation network.

Although the NHAL is very large and has over 1,400 miles of various types of existing roads, several factors limit the degree to which these roads can provide connections in the regional network of motorized recreation activities including:

- Gaps in the state's ownership throughout the overall boundary.
- Communities, resorts, and developments nested within the property boundary.
- Over 900 lakes within the property boundary.
- Wetlands that cover more than 25% of the property.
- State Natural Areas, semi-remote areas, wild lakes, scenic and wild resource areas, and other sensitive resources.
- Areas where recreation use is concentrated, including campgrounds.

**Together, these factors make it impractical to solely use DNR roads to develop connections across the property to help link the regional motorized recreation network.** Successfully creating linkages across the NHAL to connect the regional network of routes and trails will require a combination of DNR and local roads. On rare occasion, the department may need to construct a short stretch of new trail to connect existing department roads designated as ATV/UTV routes.

The following general criteria were used to identify DNR roads well-suited to provide linkages to the regional network of ATV/UTV routes and in determining when the use of motorized vehicles is restricted or temporarily prohibited on DNR roads in the NHAL. To the degree feasible, roads open for motorized vehicles:

- a) Should be consistent with both local residents' and visitors' opinions and desires for motorized and non-motorized access to the property.
- b) Should enhance and make connections to local and regional transportation and recreation trail and route networks, including adjacent public lands and existing town and county road, route and trail networks and the types of motorized use on each.
- c) Should be safe for users and operationally feasible for the department to maintain based on the anticipated level of use.

- d) Should not substantially impact natural resources or existing recreational uses based on the anticipated level of use.
- e) Should be physically capable of supporting the anticipated level of use (or could be capable with modest repairs to existing infrastructure).
- f) Should provide net economic benefits.
- g) Should be consistent with the property’s legal and policy framework.
- h) Should be consistent with the forestry operations on the property and with the recognition that DNR roads, routes, or trails may be temporarily closed to some or all public access in order to facilitate forest management activities and maintain public safety.

Public input during the comment period in April and May 2017 regarding the public’s use of the existing road network was a mix of a desire to see more roads opened for some or all forms of motorized access with an opposing desire to keep motorized recreational uses out of the forest, especially in the warm weather months. Given the range of opinions and the lack of compelling reasons to adjust the existing network of open, seasonally open, and closed roads, **this amendment does not change the ability to drive licensed, street-legal vehicles on the 505 miles of open roads on the NHAL.**

The following changes to the 2005 master plan are authorized:

ATV/UTVs riding

The amendment authorizes the department to designate a total of 202 miles of ATV/UTV routes and trails on the NHAL. This authority will be split into two “buckets”:

**Bucket A**

The amendment authorizes the department to designate 42 miles of DNR roads as ATV/UTV routes or trails, as indicated on Map G. These roads were identified based on an initial analysis because they connect to existing ATV/UTV routes on local roads, help connect the larger regional network, and appear well-suited to provide high-quality ATV/UTV experiences. One section of road, north of the Rainbow Flowage, is shown as a dashed line to indicate that it is a key connection but that some issues remain to be resolved before the department selects how best to provide an ATV/UTV connection. Several osprey nests are located on transmission line poles north of the Rainbow Flowage and the department will be undertaking additional evaluations to determine the most effective way to make a connection between the communities of Woodruff and Sugar Camp in this area.

**Bucket B**

The amendment authorizes the department to designate an additional 160 miles of existing DNR roads on the NHAL as ATV/UTV routes (those roads that are currently open or seasonally open to the public for licensed, street-legal vehicles) or ATV/UTV trails (those roads that are currently closed and will remain closed to street-legal vehicles). These routes and trails will include department roads that help to connect the larger regional network as well as “loops” of routes or trails that can provide additional riding opportunities. Because the locations of these routes and trails will be identified later, they are not currently mapped.

**Changes to motorized recreation opportunities at the NHAL:**

- Designate up to 202 miles of existing DNR roads as ATV/UTV routes or trails.
- Allow construction of up to 36 miles of singletrack off-highway motorcycle trails.
- Work with partners to develop “preferred tours” for dual-sport motorcycles and 4-wheel drive vehicles on existing open DNR and local roads as well as the newly authorized trails.

As part of the 160 miles, the amendment also authorizes the department to construct short stretches of new ATV/UTV trail to connect existing DNR roads that are designated as routes or trails. The department may also conduct any necessary improvements to the roads designated as routes or trails to improve their sustainability.

The DNR roads that are appropriate to open for ATV/UTV use in the future will, of course, depend on which roads town and county governments designate as ATV/UTV routes. The department anticipates this to evolve over time and thus recognizes the need to remain flexible in identifying DNR roads as routes or trails.

**The department will work with local governments, ATV/UTV and snowmobile clubs, and other stakeholders to identify potential routes and trails on DNR roads that would most effectively help connect the larger regional network.** The department will consider the following factors when evaluating where to establish new ATV/UTV routes and trails on department roads on the NHAL:

- Impacts to environmentally and ecologically sensitive areas and resources based on the anticipated level of use.
- Level of community support and compatibility with existing recreational uses.
- Impacts to logging and other forestry operations.
- Connections to existing designated routes and trails.
- Ability of the road to sustainably support motorized recreational use based on the anticipated level of use.
- Ability of the department or partners to maintain and operate the route or trail based on the anticipated level of use.

In addition, the department will increase seasonal road openings to facilitate hunter access from September 1 through the last day of the December 4-day antlerless gun deer season and maintain a balance of both motorized and non-motorized areas.

The department will designate ATV/UTV routes and trails that help to facilitate the connection of the regional network across the property. That is, the department will designate DNR roads as routes or trails that connect to and further enhance the broader regional network. At such time that towns or counties designate adjacent, connecting routes or trails to DNR roads on the NHAL, the department will move forward with designation of the connecting routes or trails on DNR roads. **Department designation of these routes will include public notification and inclusion on department-produced maps showing designated ATV/UTV facilities.**

Before an ATV/UTV route or trail can be established on DNR roads, appropriate signage must be installed. In addition, many of the DNR roads identified as routes or trails may require some level of management to bring the road into a condition that can support ATV/UTVs and dual-sport motorcycles. The department may authorize partner organizations to place signs and conduct road management work.

Seasonal (winter) use of ATV/UTVs on DNR routes and trails will be coordinated with the applicable town or county policies. ATV/UTV routes and trails will be classified as primitive to fully developed under NR 44.07.

#### Off-highway motorcycle riding

Licensed, off-highway (dual-sport) motorcycles are allowed on all 505 miles of DNR roads on the NHAL that are open to street-legal vehicles. About 450 miles (90%) of these roads are classified as primitive roads and provide quality experiences for many motorcycle riders.

The amendment authorizes licensed, off-highway (dual-sport) motorcycles to be ridden on the same network of DNR roads and trails that are designated for ATV/UTVs. Because dual-sport motorcycles are already allowed on all open DNR roads, this change allows dual-sport motorcycles on the ATV/UTV trails. The amendment authorizes the designation of OHM routes for the purposes of OHM travel between trails and allows designation of OHM routes when allowed by law. The amendment also allows for development of up to 36 miles of singletrack off-highway motorcycle trails. Trail systems like this are usually stand-alone trail systems similar to a singletrack mountain bike (bicycle) trail, and may involve roads to connect trail segments. These trails will be classified as primitive or lightly developed under NR 44.07.

**The department will work with off-highway motorcycle clubs and other stakeholders to identify potential off-highway motorcycle route and trail locations.** The department will consider the following factors when evaluating where to establish new off-highway motorcycle routes and trails, when allowed, on department property and roads in the NHAL:

- Impacts to environmentally and ecologically sensitive areas and resources based on the anticipated level of use.
- Level of community support.
- Impacts to logging and other forestry operations.
- Connections to existing designated routes and trails.
- Ability of the trail or road to sustainably support motorized recreational use based on the anticipated level of use.
- Ability of the department or partners to maintain and operate the route or trail based on the anticipated level of use.

Department designation of these trails and routes will include public notification and inclusion on department-produced maps showing designated OHM facilities.

Before an OHM route or trail can be established on DNR lands, appropriate signage must be installed. In addition, many of the DNR roads that may be identified as routes or trails will require some level of management to bring the road into a condition that can support OHMs. The department may authorize partner organizations to place signs and conduct road and trail management work.

An additional opportunity that could be provided is a coordinated network of motorcycle tours that allow riders to more clearly and easily travel on open roads through the property. The department will work with clubs and interested partners to develop and map “preferred tours” through the property; an example of such a tour is shown on Map J.

4-wheel drive vehicle driving

Licensed, street-legal, 4-wheel drive vehicles can be driven on all DNR roads that are open to licensed vehicles. Many of these 505 miles of roads meet the demand for rough, primitive driving experiences in remote areas. As is proposed for dual-sport motorcycles, there is an opportunity to develop a coordinated network of roads that allows drivers to more clearly and easily travel through the property.

**OFF-HIGHWAY MOTORCYCLES**

This master plan amendment provides opportunities for the two types of off-highway motorcycles (OHM):

**DUAL-SPORT**

Some motorcycles that are licensed with the Department of Transportation and are street-legal are also designed to be ridden on trails, forest roads, or other rough terrain. These motorcycles are often referred to as dual-sport.

Dual-sport motorcycles are allowed on all roads open to licensed vehicles.

**LIMITED USE (UNLICENSED)**

Limited use motorcycles (sometimes referred to as “dirt bikes”) cannot be legally driven on local roads or open DNR roads at this time. Although local units of government can designate “off-highway motorcycle routes” on their roads, by law the department can only allow unlicensed motorcycles on trails designated for their use or on DNR roads closed to all licensed vehicles.

A change to the law allowing department roads open to licensed motor vehicles to be selectively designated as OHM routes would be required before any OHM routes could be established on department roads.

Limited use and dual sport motorcycles can be operated on a designated off-highway motorcycle trail on department land at this time.

Currently, the department is not aware of any locally-designated routes for limited use, unlicensed motorcycles from which connections through the NHAL could be made.

The department will work with clubs and interested partners to develop and map “preferred tours” through the property for 4-wheel drive vehicles.

Currently, there is not a “challenge course” on the NHAL. Given the limited topographic relief and lack of large-scale, steep, rocky slopes, it is likely that attempting to site a challenge course on the NHAL is not practical nor would it provide a high-quality experience for drivers.

#### Snowmobiling

Currently the NHAL has an extensive network of approximately 485 miles of snowmobile trails and routes that link state land with county and regional trail systems. This amendment makes no changes overall to the snowmobile trails located within the NHAL, however additional uses such as ATV/UTV and OHM may be added to certain snowmobile trails or routes.

At the discretion of the property manager, changes to the NHAL snowmobile system may be made to ensure safety, consistency with management goals of the property, and in response to loss of access (of connecting trails on non-NHAL lands). Access on unplowed roads (roads otherwise open to street legal motorized traffic) may also be allowed at the discretion of the property manager. Snow cover of 6” shall be a required condition of snowmobile operation on unplowed paved roads. Such requests shall be approved if determined to not interfere with management goals for the property or present potential issues with adjacent landowners or adjacent road authorities.

Snowmobile routes and trails are classified as primitive to moderately developed under NR 44.07.

#### Licensed, street-legal vehicle driving

Many residents and visitors enjoy driving the network of open DNR roads on the property to sightsee, hunt, fish, access berry picking sites, watch wildlife, and many other activities. No changes are authorized in this amendment to the ability to drive licensed, street-legal vehicles on the 505 miles of open roads on the NHAL.

Roads are classified as primitive to fully developed under NR 44.07.

### **4. Other recreation opportunities.**

#### Boat launches.

There are over 100 boat launches on the NHAL. Given the abundance of lakes and the popularity of boating, fishing, and paddling, these sites are well used. The amendment authorizes the department to construct and maintain ten additional boat access sites at underserved lakes of each of the following types: cement plank entry, gravel entry, and canoe slide. Department staff believe that 30 additional sites will likely meet existing and future demand for different types of public access to waters within the property.

The NHAL has a mix of types of access to lakes and rivers on the property. Some waterbodies have several fully-developed access sites (some operated by the department and some by other entities) while others, by design, have no developed access. The levels and types of access provided are matched with the management goals of the lakes and reflect the desire to manage some waterbodies for non-motorized use, some for electric-motor-only use, and others for motorized use. It is the department’s intent to maintain this range of levels and types of use of lakes within the NHAL to the degree that the department has an ability to control access. The 2005 master plan identifies a range of special lake categories including: wilderness, wild, research, non-motor, electric motor, and scenic. Following the department’s current approach, no new developed (cement plank or gravel entry) boat launches would be constructed on wilderness or wild lakes.

Department staff will use the boating access standards (NR 1.91, Wis. Adm. Code) and a variety of information in identifying waterbodies that may be appropriate for developing cement plank entry, gravel entry, and canoe slide access sites including:

- Existing use levels and the types of boating allowed in the waterbody.
- Existing level of residential, commercial and other developments around the waterbody.
- Nature and type of aquatic invasive species present (or not) in the waterbody.
- Public interest in access to the waterbody and use levels of existing access sites (if any).
- Presence of rare species or other sensitive resources.

#### Day use areas.

Three sites (White Sand Lake, Sparkling Lake, and along the Wisconsin River) are no longer functioning as day use areas and the amendment eliminates their designations as such.

Visitor use of the Indian Mounds day use area has declined and the department does not believe the site warrants the staffing and resources needed to maintain the facility. The amendment un-designates the day use area. The existing boat launch will be maintained.

The existing master plan authorizes the conversion of the 19-unit Carrol Lake campground into a day use area, which this amendment does not change.

### **C. Changes in Land Use Classification**

This amendment does not make any changes to the land management classifications of the NHAL.

### **D. Consistency in Operations**

This amendment does not make any changes to the structure or process in the department's interactions with partner groups and local governments at the NHAL. The department may continue to engage in collaborative projects with various partners and to enter into agreements as necessary to seek mutually beneficial outcomes.

The department acquired lands around the Rainbow Flowage from the Wisconsin Valley Improvement Company (WVIC). Lands around the flowage that are within the Federal Energy Regulatory Commission (FERC) project boundary are subject to a series of plans describing habitat and recreation management. With this update to the 2005 master plan and the 2013 amendment, there may be a need to revise the management plans for the parcels within the FERC project boundary to ensure they are consistent with this amendment. If necessary, the department will work with FERC and WVIC to revise management plans for department-owned lands within the FERC project boundary around the Rainbow Flowage.

The department will continue to use and require best management practices (BMP) for erosion, noise and dust control for all construction activities, including proper erosion/siltation control during construction of the proposed recreation facilities. Areas of particular interest in ensuring minimal impacts during construction and operation - if they are built - include the bicycle bridge over the Manitowish River, trail construction near Toy Lake Swamp State Natural Area, and new boat landings. All facilities will be constructed according to department facilities design standards.

Prior to the construction or designation of any trails, routes, campsites, campgrounds, boat launches, or associated facilities described in this amendment, department staff will consult with experts and databases to ensure that appropriate actions are taken to minimize impacts to rare species, high-quality native communities, cultural and historic features, or other sensitive resources.

## SUPPORTING INFORMATION

The NHAL straddles three counties in northern Wisconsin and encompasses 236,000 acres (Map A and Map B). A variety of recreation facilities are currently provided (Map C), including an extensive road network (Map D). The property is largely wooded with some extensive wetlands interspersed among the over 900 lakes (Map E).

In addition to the material presented in Chapter 3 of the 2005 master plan, the following background information provides context for this amendment.

### **A. Updates on what has been completed at the NHAL since the master plan was approved in 2005**

The 2005 master plan had an ambitious list of plans for recreation. Some items have been accomplished while others have not. The following is a brief explanation of the status of some of the more notable activities related to the recreation portion of the 2005 master plan.

#### **1. Trails**

The trail program since 2005 has emphasized rehabilitation to sustainable standards. The master plan authorized mountain bike trails at the Raven site if they could be maintained and operated sustainably. The Raven system of mountain bike trails has essentially been fully rehabilitated and a skills area developed in partnership with the Lakeland Area Mountain Biking Organization (LAMBO). The proposed network of trails near Vandercook was not developed due to limited interest and funding. Since 2005 interests in mountain biking trails have evolved and this amendment authorizes a network near Muskie Mountain where downhill features can be developed.

A paved trail was constructed between Indian Mounds campground, Clear Lake Campground, Clear Lake Picnic Area, and Carroll Lake Campground. This four mile trail is likely to be an anchor for future community trails.

The 2005 plan authorized a hiking trail around the Bittersweet Lakes area. The funding request has been submitted but has not yet been funded.

A network of trails was approved for the Jute Lake area in 2005. However, due to limited interest and funding this project was not a priority and has not been completed. A trail around Clear Lake was not completed but it has been planned and may be completed by 2020 using mostly existing woods roads and trails. Short sections of boardwalk may be required.

#### **2. Camping**

Shortly after the 2005 master plan was approved some additional research was done to determine the amount of camping on the property compared to historic levels, which were higher than current levels. Lower current demand may be a reflection of changing tastes in camping and the forest's lack of electrical hook-ups. Following that research a number of campground expansion plans were given a low priority. The recession and subsequent reduction in funding for recreation development also impacted plans for camping expansion. There has been no campground related campsite construction accomplished since 2005.

Limited camping elements were accomplished with materials on hand at the Bittersweet Lakes area. Five campsites were added on the Rainbow Flowage and Wisconsin River, out of ten that are authorized.

A group camp authorized for Buffalo Lake was not constructed due to a concern for the already high intensity of use on the small lake from residents and an existing campground. Alternative locations were considered and this plan authorizes a change to construct two group camps in the southern part of the forest.

## **B. Purpose and need for the master plan amendment**

Demands for, and trends in, outdoor recreation are continually changing. Since the adoption of the 2005 master plan, changing recreation demands and opportunities at the property and in the region necessitated the department evaluate changes to the master plan. Department staff involved in management of the property and in daily interactions with visitors have noted several recreation issues that need to be addressed in order to continue providing high-quality visitor experiences. In addition, the department just completed an analysis of recreation opportunities and needs in the Northwoods Region. This assessment, known as the Recreation Opportunities Analysis (ROA), identified several important recreation needs in the region and those which the NHAL appears well-suited to address.<sup>16</sup>

Recreation needs in high demand in the nine-county Northwoods Region are:

- ATV/UTV riding
- Bicycling - bicycle touring/road riding
- Bicycling - mountain biking/off-road biking
- Camping - developed
- Camping - primitive
- Canoeing or kayaking
- Fishing - lake fishing from a boat, canoe, or kayak
- Fishing - lake fishing from shore or a pier
- Fishing - stream or river fishing from shore or wading
- Four-wheel drive (4WD) vehicle driving
- Hiking, walking, trail running, backpacking
- Hunting - big game
- Off-highway motorcycle riding
- Participating in nature-based education programs
- Snowmobiling

## **C. The amendment's consistency with the existing master plan's vision and goals**

This amendment is consistent with the property master plan's vision of providing a range of cultural, social, economic and ecological benefits within its capabilities for present and future generations and in managing the forest in consultation with the people who live, work and recreate in and around the property.

The construction and operation of additional bicycling trails within road rights-of-way through the forest is consistent with the master plan. The amendment would also enable the department to work with local communities to construct and operate bicycle trails through the forest (outside of road rights-of-way) in strategic locations where they will have minimal impacts to forestry operations, habitats, or sensitive resources, including providing opportunities for loop trails.

Providing a wider range of camping opportunities and providing different types of camping at different campgrounds will improve visitor experiences. Expanding the number of modern campgrounds would respond to growing demand for more camping amenities, while designating some rustic campgrounds as quiet zones will provide high-quality experiences for those seeking a more tranquil experience.

The 2005 master plan authorizes the department to designate ATV trails and routes on the NHAL when appropriate locations are identified. This amendment identifies a series of routes and criteria to identify future potential routes and trails that are consistent with the master plan.

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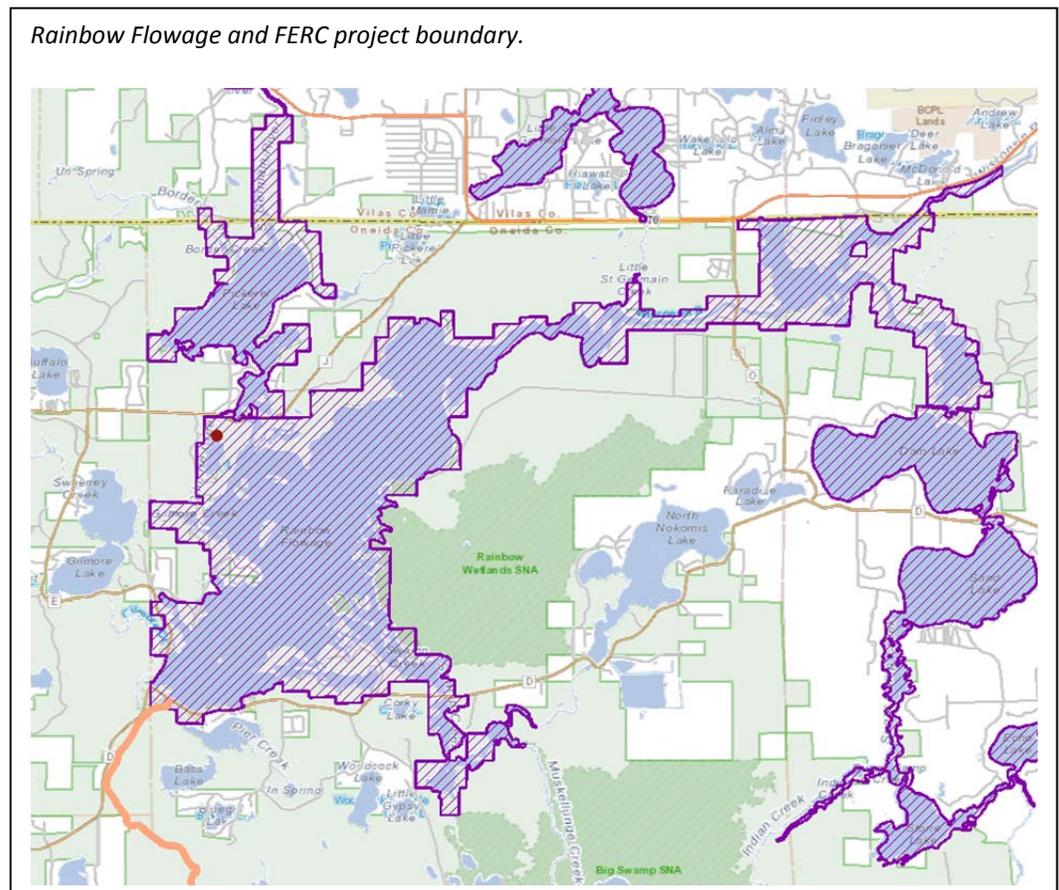
<sup>16</sup> The Northwoods ROA can be found at [dnr.wi.gov](http://dnr.wi.gov) keyword "ROA."

## D. Federal interests and limitations

Portions of the NHAL were acquired with assistance from the federal Land and Water Conservation Fund (LAWCON) grant program, starting with the first LAWCON acquisition in 1969 (Map F). Currently, more than 219,000 acres within the NHAL have federal interest via the LAWCON program. Federal interest requires that the department obtain approval from the National Park Service prior to granting any permanent real estate interests or building permanent structures that impact public outdoor recreation opportunities.

The Federal Energy Regulatory Commission (FERC) granted a license (P-2113) to Wisconsin Valley Improvement Company (WVIC) to operate the Rainbow Flowage and the associated structures. The department acquired lands associated with the flowage from the WVIC in a series of transactions starting in 2004. Many of these lands lie within FERC designated project boundary (see map). WVIC retains flowage rights and has responsibilities related to the dikes, dams, and other structures necessary to operate and maintain the flowage. Lands within a FERC project boundary are managed and used according to various management plans. WVIC also has responsibility to ensure that the uses of land within the Rainbow Flowage FERC project area are managed in accordance with the previously approved management plans and conveyance documents. The department is required to manage the land within the FERC boundary in a manner that will protect the scenic, recreational, and environmental values. As with DNR master plans, the FERC approved management plans may be updated and revised as needed. Under the current license requirements, some management plans are updated every 5 years. The entire portfolio of WVIC lands will be reviewed for possible updating in the next five years as part of a major relicensing effort for all of the WVIC project lands in Wisconsin.

The department will continue working with the FERC and WVIC to ensure that appropriate recreational uses are provided on lands within the FERC boundaries that are owned by the DNR and that the FERC-approved management plans are consistent with the NHAL master plan.



## APPENDIX

Summary of existing and proposed recreation facilities.

### Campgrounds

<b>Modern</b>	<b>Existing in 2017</b> (# campsites)	<b>Remaining authorization from 2005 MP</b> (# campsites)	<b>Changes authorized in 2017 MP amendment</b> (# campsites)	<b>Total future sites</b> (existing and authorized) (# campsites)	<b>Notes</b>
Carrol Lake	0	60	0	60	
Clear Lake	101	50	-50	101	Expansion no longer needed
Crystal Lake	101	-1	1	101	
Firefly Lake	72	48	0	120	
Indian Mounds	39	0	0	39	Convert from rustic to modern
Muskie Lake	81	0	0	81	
Sandy Beach Lake	33	0	10	43	Convert from rustic to modern
Upper Gresham Lake	25	22	0	47	Convert from rustic to modern
<b>TOTAL</b>	<b>452</b>	<b>179</b>	<b>-39</b>	<b>592</b>	

<b>Rustic</b>	<b>Existing in 2017</b> (# campsites)	<b>Remaining authorization from 2005 MP</b> (# campsites)	<b>Changes authorized in 2017 MP amendment</b> (# campsites)	<b>Total future sites</b> (existing and authorized) (# campsites)	<b>Notes</b>
Big Lake	70	0	0	70	
Buffalo Lake	52	8	-8	52	Expansion no longer needed
Carrol Lake	19	-19	0	0	Convert to day use area
Cunard Lake	33	17	-17	33	Expansion no longer needed
East Star Lake	30	30	-30	30	Expansion no longer needed
North Trout Lake	48	0	0	48	
Plum Lake	18	0	0	18	
Razorback Lake	54	11	-11	54	Expansion no longer needed
South Trout Lake	23	1	-1	23	
Starrett Lake	43	3	-3	43	
West Star Lake	18	0	0	18	
<b>TOTAL</b>	<b>408</b>	<b>51</b>	<b>-70</b>	<b>389</b>	

<b>Group</b>	<b>Existing in 2017 (# campsites)</b>	<b>Remaining authorization from 2005 MP (# campsites)</b>	<b>Changes authorized in 2017 MP amendment (# campsites)</b>	<b>Total future sites (existing and authorized) (# campsites)</b>	<b>Notes</b>
Big Muskellunge Lake	1	0	0	1	
Buffalo Lake - North Shore	0	1	-1	0	Site no longer as desirable
Jag Lake	1	0	0	1	
Rainbow Flowage	0	1	0	1	Authorized in 2013 amendment
Sweeny Lake	0	0	1	1	
Cunard Lake	0	0	1	1	
<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>5</b>	

<b>Primitive</b>	<b>Existing in 2017 (# campsites)</b>	<b>Remaining authorization from 2005 MP and 2013 amendment (# campsites)</b>	<b>Changes authorized in 2017 MP amendment (# campsites)</b>	<b>Total future sites (existing and authorized) (# campsites)</b>	<b>Notes</b>
Canoe camping	102	13	28	143	Rename as "non-reservable, water-access" campsites
Reservable-remote camping	17	4	10	31	Rename as "reservable, water-access" campsites
Rustic backpack camping	0	10	-10	0	Expansion no longer needed
Backpack camping	NA	NA	NA	NA	
Deer Hunter camping	NA	NA	NA	NA	
<b>TOTAL</b>	<b>119</b>	<b>27</b>	<b>28</b>	<b>174</b>	

<b>Other</b>	<b>Existing in 2017 (# campsites)</b>	<b>Remaining authorization from 2005 MP (# campsites)</b>	<b>Changes authorized in 2017 MP amendment (# campsites)</b>	<b>Total future sites (existing and authorized) (# campsites)</b>	<b>Notes</b>
Equestrian campground	0	1	-1	0	Expansion no longer needed

## Trails

### NON-MOTORIZED TRAILS

Hiking Trails	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Bittersweet	0	8.4	0	8.4	Primitive
Clear Lake	0	5	0	5	Lightly developed
Escanaba	11	0	0	11	Primitive to lightly developed
Jute Lake Flats	0	20	0	20	Lightly developed
Lumberjack	12.5	0	0	12.5	Lightly developed
Madeline	9.5	0	0	9.5	Lightly developed
McNaughton	10	0	0	10	Lightly developed
Powell	8.5	0	0	8.5	Lightly developed
Raven	11	0	0	11	Primitive to lightly developed
Razorback Ridges	23	0	0	23	Primitive to lightly developed
Sandy Beach picnic area	0	0	5	5	Lightly developed
Shannon	7	0	0	7	Lightly developed
<b>TOTAL</b>	<b>92.5</b>	<b>33.4</b>	<b>5</b>	<b>131</b>	

Nature Trails	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Crystal Lake Nature Trail	0.5	0	0	0.5	Lightly to moderately developed
Fallison Nature Trail	4	0	0	4	Lightly developed
North Trout Nature Trail	1	0	0	1	Primitive
Raven Nature Trail	1.5	0	0	1.5	Primitive
Star Lake Nature Trail	2.5	0	0	2.5	Primitive
<b>TOTAL</b>	<b>9.5</b>	<b>0</b>	<b>0</b>	<b>9.5</b>	

Snowshoe Trails	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Bittersweet	0	8.4	0	8.4	Primitive
Clear Lake	0	5	0	5	Lightly developed
Crystal Lake Nature Trail	0.5	0	0	0.5	Lightly to moderately developed
Fallison Nature Trail	4	0	0	4	Lightly developed
Jute Lake Flats hiking trail	0	20	0	20	Lightly developed
Lumberjack	12.5	0	0	12.5	Lightly developed
North Trout Nature Trail	1	0	0	1	Primitive

Powell	8.5	0	0	8.5	Lightly developed
Razorback Ridges	23	0	0	23	Primitive to lightly developed
Shannon	7	0	0	7	Lightly developed
Star Lake Nature Trail	2.5	0	0	2.5	Primitive
<b>TOTAL</b>	<b>59</b>	<b>33.4</b>	<b>0</b>	<b>92</b>	

Bicycle Touring Trails

	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Arbor Vitae to CTH M & N parking lot	0	0	4.0	4	Moderately to fully developed
Boulder Junction to Dairymans Road	2.5	0	0	2.5	Fully developed
Clear Lake trail	5	0	0	5	Fully developed
Crystal Lake to Boulder Junction	11	0	0	11	Fully developed
Crystal Lake to Sayner	6.5	0	0	6.5	Fully developed
Crystal Shower to Eastbound "East Beltline"	0	0	0.3	0.25	Fully developed
Crystal-Muskie bike trail	1.5	0	0	1.5	Fully developed
CTH M & N to North Creek Road	0	0	6	6	Moderately to fully developed
Dairymans Road to Presque Isle-Land O Lakes connector	0	0	2	2	Fully developed
Woodruff to St Germain	0	0	12.0	12	Fully developed
Lake Tomahawk to Tomahawk Road	0	0	2.0	2	Fully developed
Manitowish Waters loop	0	0	8	8	Moderately to fully developed
Manitowish Waters to Boulder Junction	15	0	0	15	Fully developed
Manitowish Waters to Presque Isle*	0	0	0.5	0.5	Fully developed
Mercer to Manitowish River Access Road	6.5	0	0	6.5	Fully developed
Newbold to Lake Tomahawk	0	0	5	5	Moderately to fully developed
North Lakeland School to Crab Lake Road	0	0	2.0	2	Fully developed
North Trout Lake to CTH H	0	0	4.0	4	Fully developed
Presque Isle to Land O Lakes*	0	0	3.5	3.5	Fully developed
Sayner to St. Germain	5	0	0	5	Fully developed
Upper Gresham Lake campground to Nichols Lake	0	0	4.0	4	Fully developed
Upper Gresham to Manitowish Waters	0	0	7.0	7	Fully developed
<b>TOTAL</b>	<b>53</b>	<b>0</b>	<b>60</b>	<b>113</b>	

Off-road and Constructed Mt. Biking Trails

	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Lumberjack	12.5	0	0	12.5	Lightly developed
Madeline	9.5	0	0	9.5	Lightly developed
McNaughton	10	0	0	10	Lightly developed
Muskie Mountain	0	0	15	15	Primitive to lightly developed; Skills area
Raven	11	0	0	11	Primitive to lightly developed
Razorback Ridges **	23	0	0	23	Primitive to lightly developed
Shannon	7	0	0	7	Lightly developed
Vandercook	0	25	0	25	Lightly developed
WinMan area	0	0	15	15	Primitive to lightly developed
Other off-road bicycling trails	0	0	20	20	Primitive to lightly developed
<b>TOTAL</b>	<b>73</b>	<b>25</b>	<b>50</b>	<b>148</b>	

Winter/ fat tire Biking Trails

	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Lumberjack	5	0	0	5	Lightly developed
Shannon	7	0	0	7	Lightly developed
Other off-road bicycling trails	0	0	20	20	Primitive to lightly developed
<b>TOTAL</b>	<b>12</b>	<b>0</b>	<b>20</b>	<b>32</b>	

Cross-country Ski Trails (groomed)

	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Escanaba	11	0	0	11	Primitive to lightly developed
Madeline	9.5	0	0	9.5	Lightly developed
McNaughton	10	0	0	10	Lightly developed
Raven	12.5	0	0	12.5	Primitive to lightly developed
Razorback Ridges	23	0	0	23	Primitive to lightly developed
<b>TOTAL</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>66</b>	

**MOTORIZED TRAILS**

	Existing in 2017 (miles)	Remaining authorization from 2005 MP (miles)	Changes authorized in 2017 MP amendment (miles)	Total future authorized (existing and authorized) (miles)	NR 44 Classification
Roads for licensed, street-legal vehicles (including dual-sport motorcycles)	505	0	0	505	Primitive to fully developed
Snowmobile trails	400	0	0	400	Primitive to lightly developed
ATV/UTV routes/trails	0	0	202	202	Primitive to fully developed
Off highway motorcycle trails***	0	0	36	36	Primitive to lightly developed
<b>TOTAL</b>	<b>905</b>	<b>0</b>	<b>238</b>	<b>1143</b>	

\* This is a longer potential trail with only a small portion on state forest land.

\*\* Operated by a private organization.

\*\*\* Dual-sport motorcycles are also authorized on ATV/UTV trails (see page 14).

**Day Use Areas**

	Status in 2005	Changes authorized in 2005 MP	Status in 2017	Changes authorized in 2017 MP amendment	Total future sites	Notes
Carrol Lake	Rustic campground	Convert campground to DUA	Rustic campground	Convert campground to DUA	0	
Crystal Lake	Existing	Maintain	Existing	Maintain	1	
Clear Lake	Existing	Maintain	Existing	Maintain	1	
Big Arbor Vitae Lake	Existing	Maintain	Existing	Maintain	1	Land Use Agreement with local township
Indian Mounds (Lake Tomahawk)	Existing	Maintain	Existing	Remove	0	Un-designate the picnic area. Keep the toilet for the boat landing. Remove the grills, pump, tables. Protect the mounds.
Little Star Lake	Existing	Maintain	Existing	Maintain	1	Land Use Agreement with local township
Nichols Lake	Existing	Maintain	Existing	Maintain	1	Land Use Agreement with local township
Cathedral Point (Trout Lake)	Existing	Maintain	Existing	Maintain	1	
Sandy Beach Lake	Existing	Maintain	Existing	Maintain	1	
White Sand Lake	Existing	Maintain	Not a DUA	Remove	0	
Sparkling Lake	Existing	Maintain	Not a DUA	Remove	0	
Wisconsin River	Existing	Maintain	Not a DUA	Remove	0	
<b>TOTAL DAY USE AREAS</b>	<b>11</b>	<b>1</b>			<b>7</b>	

**Boat Launches**

	Status in 2005	Changes authorized in 2005	Status in 2017	Changes authorized (2017 MP amendment)	Total future sites
Cement plank	73	1	73	10	83
Gravel	22	0	22	10	32
Canoe slide	9	0	9	10	19
Carry-in	11	0	11	Maintain	11
Unimproved	21	0	21	Maintain	21
<b>TOTAL BOAT LANDINGS</b>	<b>136</b>	<b>1</b>	<b>136</b>	<b>30</b>	<b>166</b>

# MAPS

Map A: Regional locator

Map B: DNR and other lands

Map C: Existing recreation infrastructure

Map D: Road infrastructure

Map E: Existing land cover

Map F: Federal interest

Map G: ATV/UTV routes

Map H: Bicycle touring trails

Map I: Campgrounds and day use areas

Map J: Example of a “preferred tour” for dual-sport motorcycle riders