

# TMR Supplemental Biological Resources Analysis for the 2011 Motor Vehicle Use Map

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## ***Introduction***

In spring 2009, the first Motor Vehicle Use Map (MVUM) was published for the Chequamegon-Nicolet National Forest (CNNF). Allowable motorized use on the roads of the CNNF was determined by an interdisciplinary team of CNNF staff and those uses were displayed on that map. Following the publication of the original MVUM, we have used a yearly process to update the MVUM. This process includes substantial public outreach and education as well as internal (CNNF personnel) review of the MVUM, resulting in a number of corrections and recommended changes to the allowable motorized use on the roads of the CNNF. The 2011 MVUM, if approved, will make these changes to the MVUM published in summer of 2010.

In this Supplement to the Biological Evaluations (BE) prepared for the 2008 Travel Management Project Environmental Assessment (EA) (Project Record document: PR 6302) that accompanied the 2009 MVUM, I disclose the environmental consequences of the proposed 2011 MVUM. The roads considered in this BE Supplement were evaluated by an interdisciplinary team (including me) for their suitability for motorized travel by Highway Legal Vehicles (HLV), All-terrain Vehicles (ATV), and Utility-terrain Vehicles (UTV) following the Roads Analysis Process (RAP). The RAP was conducted on February 9 and 10, 2011, to consider road comments received as a response to public outreach, and comments received from Forest Service employees.

For the RAP analysis, risks to threatened, endangered, or sensitive species (TES) were rated as follows:

- Very Low Risk (0): Road is **beyond ½ mile** of a nesting, denning, or breeding site for TES wildlife or documented TES plant occurrence.
- Low Risk (1): Road lies **within ½ mile** of a nesting, denning, or breeding site for TES wildlife or TES plant occurrence, or within 1,320 feet but a motorized road is between the occurrence and the road under review.
- Moderate Risk (3): Road lies **within 1320 feet** of nesting, denning, or breeding site for TES wildlife or TES plant occurrence, or within 660 feet but a motorized road is between the occurrence and the road under review.
- High Risk (5): Road lies **within 660 feet** of a nesting, denning, or breeding site for TES wildlife or TES plant occurrence, and no motorized road lies between the road and the occurrence.

## ***Supplemental Analyses for the 2011 MVUM***

The overall consequence ‘on-the-ground’ of the proposed 2011 MVUM update would be an increase in motorized opportunity in the amount of 23.4 miles of roads open to highway legal vehicles, ATVs, both HLVs and ATVs, or HLVs, ATVs, and UTVs. (Table 1).

**Table 1. Miles of travel corridors available for motorized use prior to this project (2008), displayed on the 2009 AND 2010 MVUM and under the proposed 2011 MVUM update.**

<b>Motor Vehicle Designation</b>	<b>2008 Alt 1 (No Action)</b>	<b>2009 MVUM</b>	<b>2010 MVUM</b>	<b>2011 MVUM</b>
<b>ATV ONLY</b>	2	6.52	7.35	4.70
<b>HLV ONLY</b>	485	1,467.44	1,352.28	1,361.61
<b>BOTH HLV &amp; ATV</b>	4169	477.74	537.50	547.94
<b>HLV, ATV, &amp; UTV</b>	0.00	0.00	0.00	6.29
<b>Grand Total</b>	<b>4656</b>	<b>1,951.71</b>	<b>1,897.13</b>	<b>1,920.54</b>

### **Environmental Consequences – Wildlife**

In this document, I supplement the impact analyses of the 2009 and 2010 MVUM (as modified to create the 2011 MVUM) for wildlife species with documented occurrences in the vicinity of roads where the allowable motorized use is proposed for a change between the 2010 and 2011 MVUM. Species for which no supplemental discussion is provided do not have any known occurrences in the vicinity of these roads or, as disclosed in the 2008 BE, the project would not impact the species. Impacts to aquatic wildlife species were not analyzed in detail because motorized access within Riparian Management Zones would not be increased under the proposed action.

#### **Gray Wolf**

Many of the roads (largely on the Chequamegon landbase) that were considered based on comments following the release of the EA were within wolf pack territories but very few were in close proximity to known denning or rendezvous sites. The designation of a motorized use on additional roads for the 2011 MVUM compared to 2010 would have a small impact on the availability of motorized roads as described in the April 2008 BE. Overall, the 2011 MVUM would provide slightly more motorized access than it did prior to the modifications but remains much less than that which was available prior to the publication of the 2009 MVUM. Therefore, relative to the conditions prior to publication of the 2009 MVUM (Alt 1 in the 2008 EA), the 2011 MVUM is a more favorable transportation system as far as wolves are concerned because there are fewer roads open to motorized use and a reduced potential for human/wolf interactions.

#### **Bald Eagle**

None of the roads proposed for adding/increasing motorized vehicle use under the 2011 MVUM are within ¼ mile of any known eagle nests, therefore no change in the Determination of Effects is warranted. This determination is based on direction from the CNNF Forest Plan and the Northern States Bald Eagle Recovery Plan, both of which restrict human activities only within ¼ mile of nests.

#### **Wood Turtle**

None of the road segments considered for changes in the designation of allowable motorized use under the 2011 MVUM are within ½ mile of known wood turtle occurrences therefore no change in the Determination of Effects is warranted.

## Marten

The proposed changes in the 2011 MVUM, compared to the 2010 MVUM, collectively result in a net increase of 28.6 miles of available motorized roads within known marten home ranges (Table 2). However, during this same time period the acreage of marten home ranges increased substantially due to expansion of the population (in part through supplemental stocking). The total size of marten home ranges in 2010 was 15,407 acres, or 24.07 square miles. The total size of marten home ranges in 2011 is 45,464 acres, or 71.04 square miles. Therefore, the overall density of available motorized roads within marten home ranges would actually decrease under the 2011 proposal, from 0.96 to 0.73 miles of motorized road/square mile of marten home range. No change in the Determination of Effects is warranted due to this reduced density.

**Table 2. Miles of travel corridors available for motorized use prior to this project (2008), displayed on the 2009 AND 2010 MVUM and under the proposed 2011 MVUM update.**

<b>Motor Vehicle Designation</b>	<b>2008 Alt 1 (No Action)</b>	<b>2009 MVUM</b>	<b>2010 MVUM</b>	<b>2011 MVUM</b>
HLV ONLY	239.87	14.21	13.79	31.65
BOTH HLV & ATV	18.08	6.95	9.28	20.02
<b>Grand Total</b>	<b>257.95</b>	<b>21.16</b>	<b>23.07</b>	<b>51.67</b>

## Northern Goshawk

On the Eagle River/Florence district, a goshawk nest is within 660 feet of an existing road that is being proposed for increased use. Currently the road is open year-round to HLV use; the 2011 MVUM would add seasonal ATV use only. This seasonal use would be outside of the critical nesting period for goshawk. Therefore, the motorized use designation for roads as proposed under the 2011 MVUM would not represent a meaningful departure from the effects disclosed in the 2008 BE for the 2009 MVUM.

## Red-Shouldered Hawk

On the Lakewood-Laona Ranger District, a red-shouldered hawk nest is within 660 feet of an existing road and two spurs. The roads had been low standard roads but were improved through a timber sale decision, resulting in the potential for increased use. Current use allowed under the 2010 MVUM is seasonal HLV use, from September 1 through December 31. The public had requested expanding the season of use to April 1 through December 31, to accommodate long-standing recreational use. Following District Ranger review, the proposal for the 2011 MVUM is to expand the period of use to August 1 through February 15. This would provide the public with increased recreational use of the road, but would follow Forest Plan guidelines for protection of red-shouldered hawk nesting activity. This mitigation is expected to result in no increased impact to red-shouldered hawks and nesting activity.

## Sharp-tailed Grouse, Henry's Elfin, Tawny Crescent, Chryxus Arctic

Sharp-tailed grouse and the three barrens-associated butterflies are open-lands specialists that are not particularly sensitive to the presence of roads (*but see* PR 5402). They would be vulnerable to disturbances related to motorized users leaving the roadbed and traveling cross-country into the open lands these species prefer, however that type of use is illegal and beyond the scope of

this analysis. The 2010 MVUM proposal was found to have the same range and magnitude of effects relative to the No Action Alternative, with fewer roads available for ATV, HLV, or both ATV and HLV use compared to the pre-TMR road system. The 2011 MVUM proposal is identical to the 2010 MVUM; a total of 17.67 miles of roads would be available for motorized use within the Moquah Barrens, Riley Lake Wildlife Area, and satellite barrens. Since there would be no change from 2010, the 2011 proposal is not expected to result in any change of impacts to these species.

## ***Environmental Consequences - Plants***

There are 8 occurrences of RFSS plant species in the near vicinity (within 660 feet) of 7 road segments evaluated for designation of a motorized use under this project. The final designations for those road segments are provided below along with predicted impacts to the nearby plant locations from any changes to the MVUM.

### ***Arabis missouriensis***

There is one occurrence of *Arabis missouriensis* within 660 feet of a trail that is currently open to seasonal high-clearance HLV use (the “Pipeline” trail on Lakewood-Laona district). The current season of use is May 1 through March 15. However, due to public safety and environmental concerns (including eroding steep slopes) the 2011 MVUM would change the season of use to June 1 through March 14. This reduced use would reduce any potential impacts to the plant site. No change in the Determination of Effects is warranted.

### ***Arethusa bulbosa***

One *Arethusa bulbosa* occurrence is within 660 feet of a trail on the Eagle River-Florence district that is currently open to seasonal ATV use. A proposal to add UTV use was analyzed as part of the RAP, however a subsequent request from the district was to not add UTV use due to the narrowness of the trail. The final designation for the trail is no change in use, therefore no change in the Determination of Effects is warranted.

### ***Botrychium mormo***

Two occurrences of *Botrychium mormo* are within 660 feet of two road segments. One of those roads, on Lakewood-Laona district, has been open to HLV use, and was being analyzed for the addition of ATV and UTV use. However, the final proposal is to maintain current use (HLV only). Another trail system (Deadhorse Trail on Great Divide district) has been open for years to ATV use; the 2011 MVUM would add UTV use as well, pending a safety analysis for mixed use. Since the only change regarding *Botrychium mormo* sites would be to add UTV use to an existing trail, there would be no additional impacts involved. No change in the Determination of Effects is warranted.

### ***Dryopteris expansa***

One *Dryopteris expansa* site is within 660 feet of a trail system on Park Falls-Medford district that is currently open to ATVs. The 2011 MVUM would add UTV use as well, pending a safety analysis for mixed use. Since the only change regarding the *Dryopteris* site is the addition of UTV use to an existing trail, no impacts are expected to the plant site. No change in the Determination of Effects is warranted.

## **Juglans cinerea**

There are two butternut sites within 660 feet of roads or trails considered for increased use under the 2011 MVUM. One trail on the Lakewood-Laona district is currently open to seasonal ATV use, between May 1 and October 31; the 2011 MVUM would add seasonal UTV use as well for the same time period. Another road on Lakewood-Laona district that is currently open year-round to HLV use would have ATV and UTV seasonal use added (May 1 to October 31) pending mixed use analysis. Butternut was originally listed as a RFSS because of viability concerns due to butternut canker, a fungal disease which is already prevalent on the Forest, including near these roads. The amount of motorized use on existing roads would not be a determining factor in whether butternut survive infestation by canker. No change in the Determination of Effects is warranted.

## **Panax quinquefolius**

There is one occurrence of *Panax quinquefolius* within 660 feet of a trail that is currently open to seasonal high-clearance HLV use (the "Pipeline" trail on Lakewood-Laona district). The current season of use is May 1 through March 15. However, due to public safety and environmental concerns (including eroding steep slopes) the 2011 MVUM would change the season of use to June 1 through December 31. This reduced use would reduce any potential impacts to the plant site. No change in the Determination of Effects is warranted.

## ***Environmental Consequences - Elk***

Within Zone A of the Clam Lake Elk range (see Forest Plan Appendix L), under the 2009 MVUM, there were 197 miles of road available to motorized use. Under the 2010 MVUM update, the amount of motorized opportunity was reduced slightly to 194 miles and some of those roads were available in the fall only to avoid disturbing elk during the calving season. Under the proposed 2011 MVUM update, the amount of motorized use available in Zone A of the elk range would increase to 223 miles (Table 3). The majority of motorized routes added are from a project specific decision (the Twin Ghost Project). Those proposed changes were analyzed in an environmental impact statement for the project, along with proposed vegetation management, and no significant effects were identified for the Clam Lake elk herd.

The Forest Service has been working together with the Wisconsin DNR on a regular basis to identify roads of particular concern regarding elk activities, and modifying access where necessary. For example, several roads have been closed during May and June to prevent disturbance to known calving sites. One road of concern due to year-round elk activity has already been closed to public motorized use through previous MVUMs, and will be physically closed with a gate under the Twin Ghost project decision. Because of these site-specific measures, the overall addition of 29 miles of motorized routes within Zone A is not expected to impact the Clam Lake elk herd.

**Table 3. Miles of open roads and ATV trail available for motorized use within the core area (Zone A) of the Clam Lake Elk Herd on the Great Divide Ranger District of the CNNF.**

<i>Motor Vehicle Use</i>	<i>2009 MVUM</i>	<i>2010 MVUM</i>	<i>2011 MVUM</i>
<b>ATV ONLY</b>	0.00	0.00	0.00
<b>HLV ONLY</b>	66.51	55.60	73.50
<b>BOTH HLV &amp; ATV</b>	130.41	137.92	149.04
<b>Grand Total</b>	<b>196.92</b>	<b>193.52</b>	<b>222.54</b>

***Environmental Consequences – Hunting Opportunity***

The proposed 2011 MVUM would have a net effect of increasing the mileage of roads open to motorized public use. Hunting opportunities dependant on motorized access would therefore be expanded under the 2011 MVUM compared to the 2010 MVUM. Motorized hunting opportunity under the 2011 MVUM would remain less than what was available prior to the 2009 MVUM (analyzed as Alternative 1 in the 2008 EA).

***Environmental Consequences – Ecological Reference Areas***

Excluding map corrections and road decisions made in conjunction with vegetation management projects, the 2010 MVUM contained approximately 9 miles of road within Management Areas 8E, 8F and 8G. These Management Areas are collectively known as Ecological Reference Areas (see Forest Plan EIS pp. 3-110 to 3-126). These areas were designated as such because they provide “benchmark conditions for baseline monitoring and research, refugia for rare species, and some ecological conditions or functions that are not otherwise available across the landscape” (FEIS p. 3-110). Increasing the motorized access within these areas runs counter to these values. Overall, approximately three miles of motorized travel would be added by the proposed 2011 MVUM, compared to the 2010 MVUM. In addition, there would be a small amount of changed use involved: seasonal use to yearlong, and yearlong use to seasonal (Table 4). This represents a net increase of motorized use in Ecological Reference Areas, however the changes are within a total of almost 200,000 acres of these management areas. There would be no additional motorized use within MA 8E, Research Natural Areas. These roads were all available to some form of motorized use prior to the 2009 MVUM, so in that regard, the 2011 MVUM has regressed, however incrementally, toward the conditions of Alternative 1 of the 2008 EA

**Table 4. Changes proposed in 2011 MVUM, compared to 2010 MVUM, in Management Areas 8F and 8G (there are no changes proposed for MA 8E).**

<i>Management Area</i>	<i>Status of change</i>	<i>2011 MVUM</i>
<b>MA 8F</b>	Miles added – HLV/ATV seasonal	1.83
	Status change – HLV/ATV seasonal to HLV yearlong	1.42
<b>MA 8G</b>	Miles added – HLV yearlong	1.18
	Status change – HLV yearlong to HLV/ATV seasonal	0.28
<b>Total changes (miles)</b>		<b>4.71</b>

### ***Addition of UTV Use***

The 2011 MVUM, if approved, would allow the use of Utility Terrain Vehicles (UTVs) on certain roads and trails as identified by the MVUM. Last year, some use was allowed, but under a very restricted definition; only vehicles 50 inches wide or less were allowed on roads and trails that were open to ATVs. This year, under a pilot program, the Forest would allow vehicles that meet the state definition of UTVs. That definition includes motor vehicles other than golf carts or low-speed vehicles that are designed to be used primarily off road and were originally manufactured with: gross vehicle weight of more than 900 but not more than 1,999 pounds; four or more low-pressure tires; cargo box or dump box; width of not more than 65 inches; seating for at least two occupants, with seat belts or other restraints; steering wheel; rollover protection; and highway-legal lighting. (Wisconsin State Statute 23.33 (11p) (6))

Under the 2011 MVUM, UTVs would be allowed on 6.3 miles of roads, and 168.1 miles of trails. This represents added mileage compared to what was available in 2010, since as noted above, most UTVs were not allowed on Forest roads and trails before 2011. All of this use however would be on existing roads and trails, with other existing motor vehicle uses. No new roads or trails would be constructed for UTV use, and no closed roads or trails would be opened simply to accommodate UTV use.

Whether the additional mileage of roads and trails designated for UTV use translates into actual increased use, as opposed to “substituted use” (the same number of users riding UTVs instead of ATVs) is difficult to predict. It is also difficult to predict the type of use. Some generalizations will be attempted here however, based on a Wisconsin Department of Natural Resources pilot study and industry information (the industry information comes from Polaris, the largest manufacturer of UTVs):

- In 2009, 59% of UTVs were purchased as a first vehicle; 41% were purchased as a replacement or addition to other utility vehicles; the purchase and use of UTVs appears to be growing faster than ATVs (Polaris data)
- The median income of 2009 UTV owners was \$80,000; mean age was 44 (Polaris data)
- The majority of UTV use is still for utilitarian rather than recreational use (Polaris data)

- Many of the respondents to a DNR pilot program survey commented on the safety of UTVs, due to older drivers, slower speeds, and features such as roll bars and safety belts

Based on this somewhat limited information, it appears that although the use of UTVs is growing, and maybe replacing ATV use to a degree, owners are older and well-off, and using the machines for practical and safety reasons as much as for recreation and excitement. While overall use of roads and trails could increase where UTVs are allowed, my prediction is that this type of use would not result in additional impacts to the wildlife and rare plant resource.

## **Conclusion**

This analysis considered potential impacts from implementation of the 2011 MVUM, compared to previous MVUMs and to the conditions prior to the first (2009) MVUM. Overall, the ‘on-the-ground’ result of the proposed 2011 MVUM update is a minor increase in motorized opportunity in the amount of 23.4 miles of roads open to highway legal vehicles, ATVs, both HLVs and ATVs, or HLVs, ATVs, and UTVs (Table 1). Impacts of these changes were considered for animal and plant Regional Forester Sensitive Species (RFSS), the Clam Lake elk herd, hunting opportunities, and Ecological Reference Areas. Potential impacts due to adding UTV use to certain roads and trails was also analyzed.

For RFSS, little or no impacts were identified from changes resulting from the 2011 MVUM. For some species, such as the gray wolf, the slight increase in motorized routes could have minor impacts compared to the 2010 MVUM, however compared to the conditions prior to the 2009 MVUM, there would be substantially fewer impacts. For marten, the overall amount of motorized routes within marten territories increased, but that was largely because the marten expanded its range. The overall density of motorized routes within the increased range is actually less than in 2010. For all of the plant species, there would either be no impact, or improved conditions from the changes in the 2011 MVUM.

There would be a slight increase in motorized use opportunities within the Clam Lake elk range, but that would be mitigated by site-specific access control measures. Most of the motorized use increase is due to a project level decision; the environmental impact statement for those actions found no significant impact to the elk herd.

The addition of UTV use as a pilot project on the Chequamegon-Nicolet National Forest was found to have no additional impacts. This is because of the expected type of use for UTVs, and because no new routes would be constructed; there would simply be changed use to existing roads and trails.