

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
WILDLIFE DIVISION**

**Management Plan for the  
Drummond Grouse Enhanced Management Area**



Prepared by:  
David Jentoft  
Wildlife Biologist  
Revised August 6, 2014

## Introduction

The Drummond Grouse Enhanced Management (GEM) area is being developed to promote ruffed grouse habitat and hunting opportunities on Drummond Island. Similar areas are being developed across the Upper Peninsula (UP) and assembled into a Grouse Enhanced Management System, or GEMS. These areas will act as destination sites for grouse hunting across the UP, provide unique opportunities for hunting and wildlife viewing, and ultimately support local economies.

The GEM concept is desired by Drummond Island stakeholders, and consistent with Department of Natural Resources (Department) planning efforts on the island. In 2010, the Department began a planning process with island stakeholders to develop recommendations and ultimately a management plan for the island. The Drummond Island Writing Team (DIWT) was assembled from island stakeholders to address management issues, and a recommendation report (Recommendations for Drummond Island Comprehensive Resource Management Plan, 2012) was presented to the Department Director and the Natural Resources Commission (NRC) in July 2012. Two of the recommendations directly relate to this area:

- *The group recommends that the Drummond Island Writing team members work with the DNR and the Ruffed Grouse Society to create areas that are more intensively managed for Ruffed Grouse and upland game birds (e.g., aspen blocks managed on rotation).*
- *To encourage walk-in hunting and other recreational opportunities, the group recommends that the entire area north of First and Second Lake be designated as a no-wheeled motorized access area.*

Although not captured in a recommendation specifically for this site, promotion of the hunting and recreational opportunities available here was also important to the group. The DIWT made general recommendations regarding public outreach, and promoting the opportunities on Drummond Island including the island being a destination for hunting.

## Inventory

The Drummond Grouse Enhanced Management (GEM) area encompasses approximately 2,850 acre area of state forest land and is located between the Potagannissing Flooding (or First Lake) and the Maxton Plains on Drummond Island (T42N R6E Sections 1, 2, 11, 12) (Appendix 1). It is at the northern extent of the Drummond Island Management Area (Draft Regional State Forest Management Plan/Eastern Upper Peninsula). It is part of Compartments 3 & 4 in the Sault Ste. Marie Forest Area. Much of this land was purchased with state game funds (Act 17 of the P.A. 1921).

It is dominated by a mix of aspen/poplar and lowland conifers. Aspen and poplar types compose approximately 58% (1,665 acres) of the GEM (Appendix 2). Stands in this area were harvested in blocks to ultimately provide varying age classes of regenerating forest of this type. Management to date provides a good basis for the GEM to be established.

The most common soil types are very stony loam, clay loam, and muck. These soils range from somewhat to poorly drained. Aspen and poplar stands are primarily located on loams and clay loams. Cedar and lowland deciduous types dominate on muck soils.

There are two primary points of access to this area from which a network of forest trails originate. The forest trails are the result of temporary logging roads that were blocked with berms upon completion of timber sales.

A network of closed logging roads throughout the GEM provides forest trails that are available for walk-in access. The two primary access points are trails originating on Maxton Road and on Damit Road (the access to the Potagannissing flooding). Berms at both locations block vehicular traffic. Other access points are located further north, but do not provide the same access to the forest trail network. Finally, a snowmobile trail is located on the west side; the trail is closed during the off-season. The entire area is closed to motorized vehicles.

## **MANAGEMENT ACTIONS**

### **Goal 1: Promote preferred habitat for ruffed grouse.**

Ruffed grouse prefer young aspen stands (< 25 years old) with high stem densities. Older trees that provide sites for roosting and budding are also important. Grouse feed on buds, catkins, and leaves as well as the flower buds of older aspen (> 25 years old) (Hammill & Visser, 1984). Thus, various age classes are important to grouse. Aspen stands are also important to other wildlife. Woodcock prefer young aspen growth, particularly when it is in association with moist soils where they can use their long beaks to probe for earthworms. These stands can also provide browse and cover for white-tailed deer and snowshoe hare. Edges between young and older stands as well as transitions between aspen stands and other cover like lowland conifers and openings are also used by all of these species.

Aspen and lowland poplar are relatively shade-intolerant. Stands are managed via clearcutting to allow adequate sunlight for young growth. Cutting also tends to spur growth of these species through root sprouts, or clones. White birch, often a component of aspen stands and another important tree for ruffed grouse and other wildlife, also does best in full sunlight.

Aspen and lowland poplar stands will be managed in blocks to encourage multiple age classes in close proximity to one another. Although past forest management activities promoted multiple blocks of young aspen, most mature stands were treated and resulting blocks are relatively young; further age class diversity is desired. Stand age currently varies from approximately 3 to 93 years, but the majority of stands (69% of the aspen and poplar) are 21 years or younger. Of the 1,665 acres of aspen and poplar in the GEM, 710 acres (43%) range in age from 7-16 years old, while nearly 440 acres (26%) are 21 years old.

Future management will focus on diversifying age classes of aspen and poplar stands with the objective of having up to 8 age classes present at one time, and stands of varying age classes in close proximity to one another. To accomplish this, some areas may be treated prior to maturity although older stands will be treated first to discourage conversion to a different forest type. The treatment rotation map in Appendix 3 shows blocks for treatment and the planned treatment rotation for each stand. Tables 1 provide estimates of rotation acreage and table 2 provides a treatment schedule for each stand. Those stands undergoing initial treatments, particularly the largest stand, will be subdivided in the future and each subdivision will be placed in one of the 8 treatment rotation categories. Stands would normally be treated on 5 year intervals. Intervals may need to be extended here since stand growth tends to be slower on Drummond than elsewhere. The habitat created by these treatments should encourage use of the area by ruffed grouse as well as the other huntable and non-game species listed above.

Stand treatments will primarily be conducted through commercial timber sales where possible. However, some non-commercial timber stand improvements may be necessary at times. During stand treatments, conifers  $\leq 4$  inches dbh may be left uncut since low conifer cover can be important to grouse (Hammill & Moran, 1986). Efforts will be made to maintain stand diversity by leaving cedar, hemlock, and under-represented species. Any oak, dogwood, or other mast-producing species will generally be maintained and promoted.

## **Goal 2: Enhance the recreational opportunities for hunting.**

The primary purpose of this area is to enhance the hunting opportunities here, and create a destination for hunting. Similar areas are being developed on state land across the Upper Peninsula. Although the emphasis is on ruffed grouse, the area is intended to be available for hunting all huntable species and management should encourage others like white-tailed deer and snowshoe hare.

Hunting opportunities will be enhanced using a number of methods, identified in each objective below. Most were supported by a DIWT recommendation.

*Objective: Support a unique hunting experience.*

The DIWT recommended that a walk-in hunting area be created to pursue ruffed grouse. The Drummond GEM will support both a unique walk-in experience and an opportunity for hunting a truly remote area.

Parking areas are available at trail heads (Appendix 4). One parking area is located just east of Maxton Road at an access point to the GEM. Hunters and others can park in a grassy opening west of an extensive berm that blocks vehicular access east into the area, and walk the trail system behind the gate. Gravel has been placed in the western part of this opening to create a small improved parking lot and to improve a section of the road. A second parking area is located on the northwest side of the Potagannissing Flooding, or First Lake, along Damit Road at the eastern gate. There is space for 2 vehicles between

the road and the berm. Additional parking is available just east at the parking lot for the flooding. Gates have been placed at both sites, and signs will be placed at both access points to better identify the area and clarify the access restraints for motorized vehicles. The Ruffed Grouse Society funded the gates, and is partnering in the establishment of the Drummond GEM.

Although berms were in place prior to gate installation and the area has been closed to motorized vehicles for some time, there is evidence of ATV use in the area. Gates and signs will clarify the motor vehicle restrictions already in place. However, enforcement will likely be necessary to successfully curtail vehicular use. The actions identified in this plan are also intended to aid law enforcement efforts in this area. Enforcement efforts will require the support of island stakeholders.

*Objective: Maintain a trail system for hunters and other users.*

The existing forest roads resulting from previous logging activities provide a trail system through the GEM. These roads are not marked, generally are unimproved, and are essentially linear forest openings. Some have young forest regeneration in them, and have been kept open by ATV use.

Trail signs will be posted in some locations, including near parking areas, to provide a map and/or location directions. Trails will require maintenance, which may range from periodic brushing to graveling or other improvements.

Some trails may be planted with herbaceous items such as grasses or legumes. This may occur in conjunction with other management activities that require use of the roads, like logging, or as independent projects. Partnerships with stakeholders including the Ruffed Grouse Society will be sought for some of the projects. Interior locations—those ¼ mile or more (by trail) from a parking area—may receive higher priority for planting.

*Objective: Establish partnerships to assist in management*

Partnerships with stakeholders are desirable to conduct management here and promote the GEM. The Ruffed Grouse Society has partnered with the Department, funding gates and other infrastructure near parking areas. The Department will continue to seek partnership opportunities with organizations to implement management activities such as trail maintenance or improvements (including plantings) and establishing or maintaining signs.

### **Goal 3: Public information/outreach**

This GEM is being created to provide a destination on the island for hunters. Public outreach will be needed to identify and promote the area, as well as direct visitors to the site.

*Objective: Identify the area*

Various methods can be used to identify the area and direct people to the site. The Drummond GEM will be identified on the MI Hunt system, and it will be promoted as part of the UP GEMS. On-site, signs identifying the area will be placed near Maxton Road as well as the access point along Damit Road.

*Objective: Establish the site as a destination and an asset to the local economy*

Establishment of the Drummond GEM will be communicated to the DIWT for promotion on Drummond Island. Local businesses will be able to use the GEM as a tool to promote tourism to the area. Once established on the MI Hunt system and possibly in other media, the Drummond GEM can be advertised or promoted by local businesses to encourage tourism. Although currently difficult to quantify, the GEM will be an asset to the local economy.

## REFERENCES

Hammill, J., and L. Visser. Status of Aspen in Northern Michigan as Ruffed Grouse Habitat. Pages 123-136 *in* Ruffed Grouse Management: State of the Art in the Early 1980's. Proceedings of a symposium held at the 45<sup>th</sup> Midwest Fish and Wildlife Conference, St. Louis, Missouri, December 1983. Edited by William Robinson, Professor of Biology, Northern Michigan University. 1984. 181 pp.

Hamill, J. H., and R. J. Moran. 1986. A habitat model for ruffed grouse in Michigan *in* Wildlife 2000: Modeling Habitat Relationships of Terrestrial Vertebrates. Edited by J. Verner, M. L. Morrison and C. J. Ralph. pp. 15–18. University of Wisconsin Press, Madison, Wisconsin. 470 pp.

Recommendations for Drummond Island Comprehensive Resource Management Plan: report of the Drummond Island Writing Team to the Director of the Michigan Department of Natural Resources. June 2012. <<http://www.michigan.gov/dnr>>. Accessed 3 Sept 2013.

Regional State Forest Management Plan/Eastern Upper Peninsula. Draft. Michigan Department of Natural Resources. <<http://www.michigan.gov/regionalforestplans>>. Accessed 3 Sept 2013.

Table 1. Harvest treatment rotation, year of entry, and acreage for aspen types in the Drummond Grouse Enhanced Management System. Acreage includes stands that will become aspen types upon treatment.

<b>Rotation</b>	<b>Year of Entry</b>	<b>Acres</b>
1	2019	183
2	2024	197
3	2029	174
4	2034	159
5	2039	177
6	2044	199
7	2049	152
8	2054	187
	<i>Total:</i>	<i>1428</i>
Initial Treatments		300
		<i>Total for GEM: 1728</i>

Table 2. Compartment and stand numbers, rotation, and year of entry for harvest treatments.

<b>Compartment</b>	<b>Stand</b>	<b>Age in 2013</b>	<b>Rotation</b>	<b>Treatment</b>	
				<b>Year of Entry</b>	<b>Acres</b>
3	62	106	Initial	2015	194
4	21	87	Initial	2015	29
4	36	87	Initial	2015	54
4	37	87	Initial	2015	23
3	19	21	1	2024	27
3	53	21	1	2024	38
3	53	21	1	2024	37
3	70	90	1	2024	14
4	3	16	1	2024	19
4	5	16	1	2024	22
4	15	14	1	2024	26
3	53	21	2	2029	32
3	53	16	2	2029	21
3	53	21	2	2029	16
3	53	21	2	2029	16
4	6	8	2	2029	15
4	7	21	2	2029	13



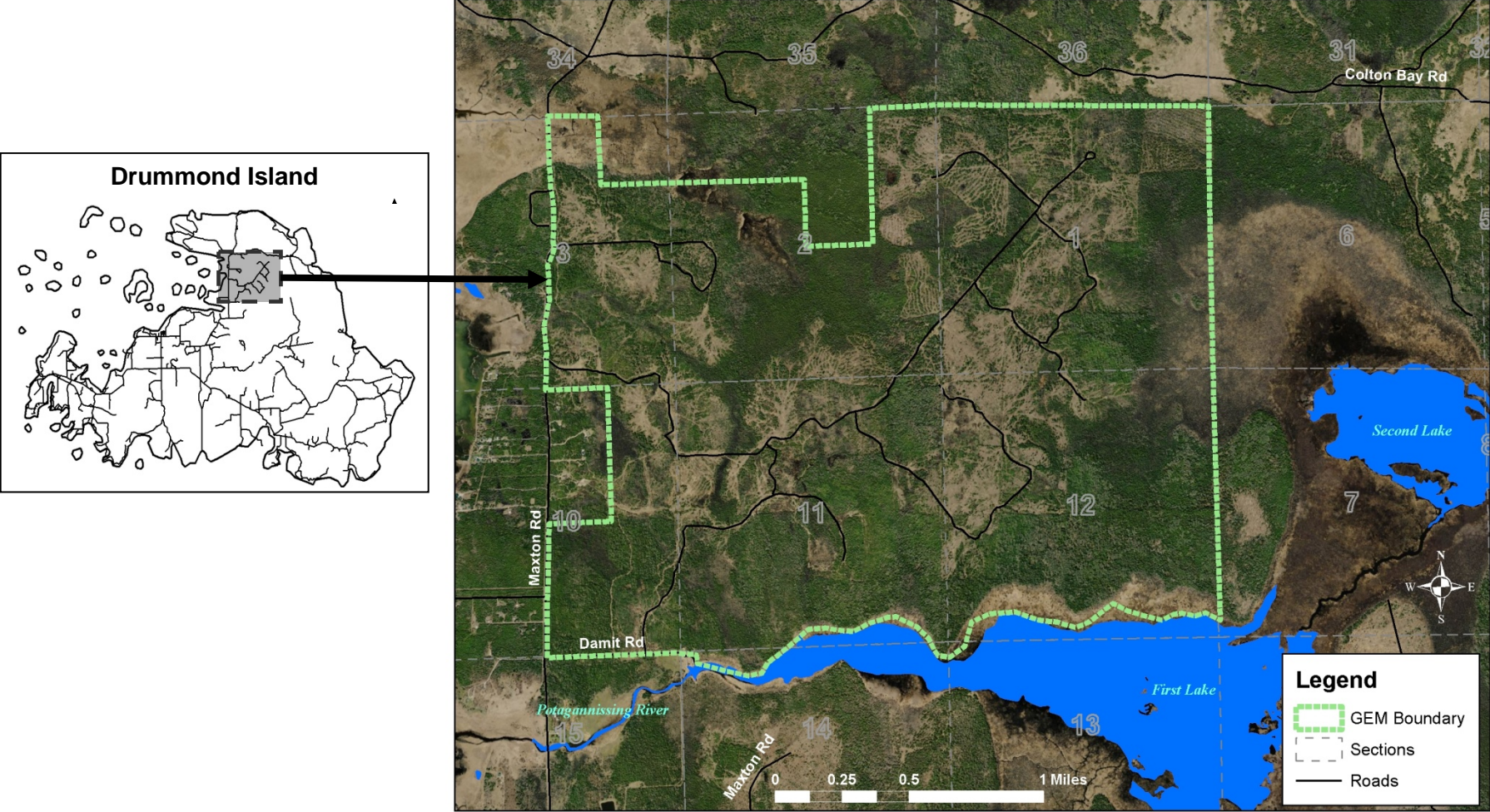
Table 2 continued. Compartment and stand numbers, rotation, and year of entry for harvest treatments.

Compartment	Stand	Age in 2013	Rotation	Treatment	
				Year of Entry	Acres
4	9	12	2	2029	20
4	17	14	2	2029	38
4	19	11	2	2029	26
3	12	20	3	2034	19
3	43	10	3	2034	38
3	53	21	3	2034	16
3	53	21	3	2034	19
4	1	12	3	2034	37
4	11	16	3	2034	17
4	13	16	3	2049	28
3	13	20	4	2039	16
3	19	21	4	2039	23
3	25	16	4	2039	33
3	50	4	4	2039	17
4	8	10	4	2039	18
4	15	14	4	2039	23
4	16	8	4	2039	29
3	11	10	5	2044	30
3	38	4	5	2044	27
3	70	90	5	2044	17
4	3	16	5	2044	17
4	5	16	5	2044	15
4	7	21	5	2044	13
4	12	4	5	2044	22
4	18	9	5	2044	18
4	35	7	5	2044	18
3	22	16	6	2049	19
3	53	21	6	2049	24
3	53	21	6	2044	16
3	53	21	6	2049	22
3	53	16	6	2049	15
4	1	12	6	2049	13
4	2	4	6	2049	29
4	9	12	6	2049	12
4	11	16	6	2049	14
4	13	16	6	2049	10
4	38	4	6	2049	25
3	29	10	7	2054	18
3	36	16	7	2054	26
3	43	10	7	2054	33

Table 2 continued. Compartment and stand numbers, rotation, and year of entry for harvest treatments.

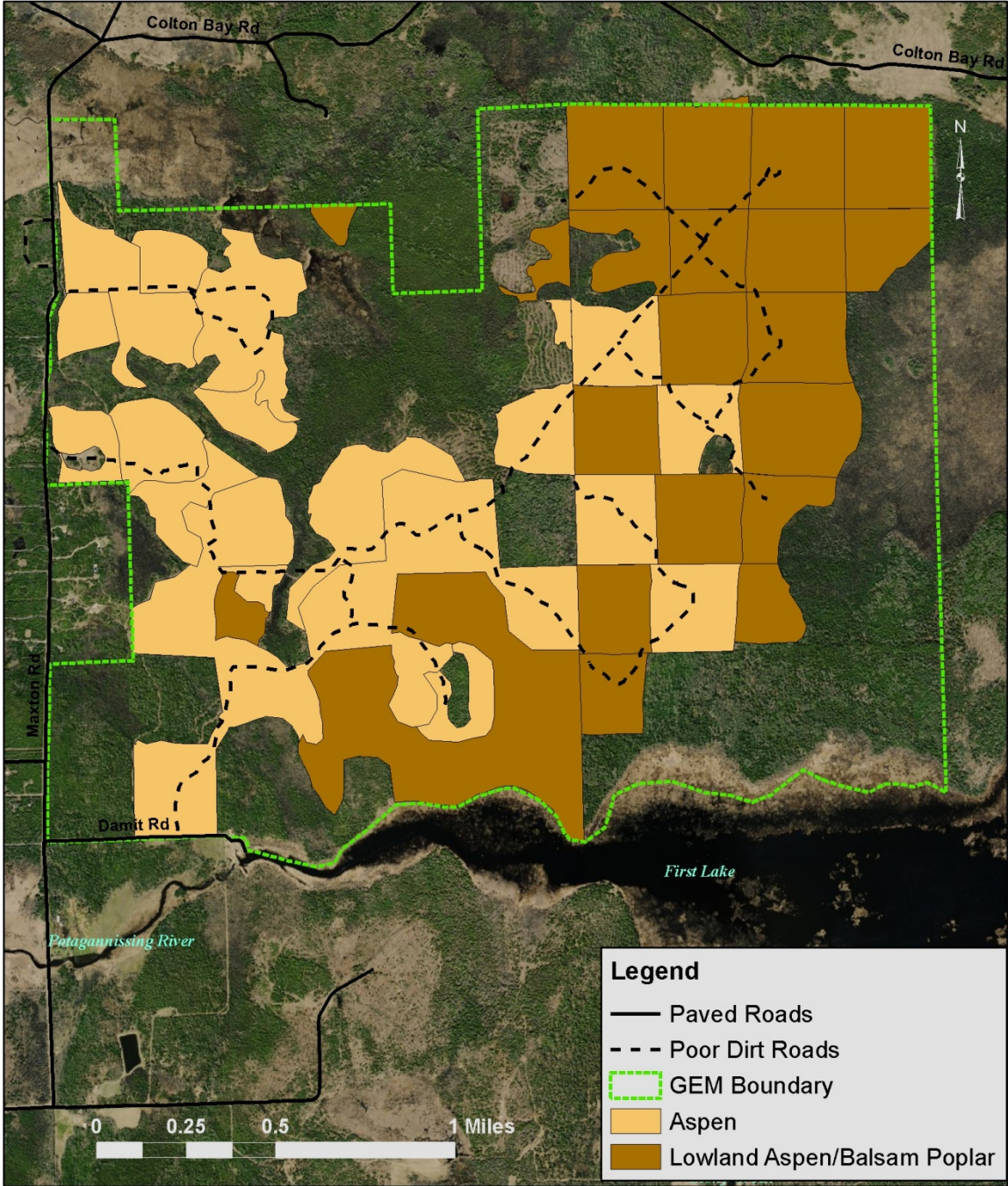
Compartment	Stand	Age in 2013	Rotation	Treatment	
				Year of Entry	Acres
3	53	21	7	2054	15
3	61	21	7	2054	19
4	6	8	7	2054	22
4	16	8	7	2054	19
3	11	10	8	2059	26
3	38	4	8	2059	22
3	44	10	8	2059	21
4	8	10	8	2059	14
4	12	4	8	2059	25
4	18	9	8	2059	21
4	35	7	8	2059	23
4	38	4	8	2059	20

Appendix 1. Location and boundary of the Drummond Grouse Enhanced Management (GEM) area.



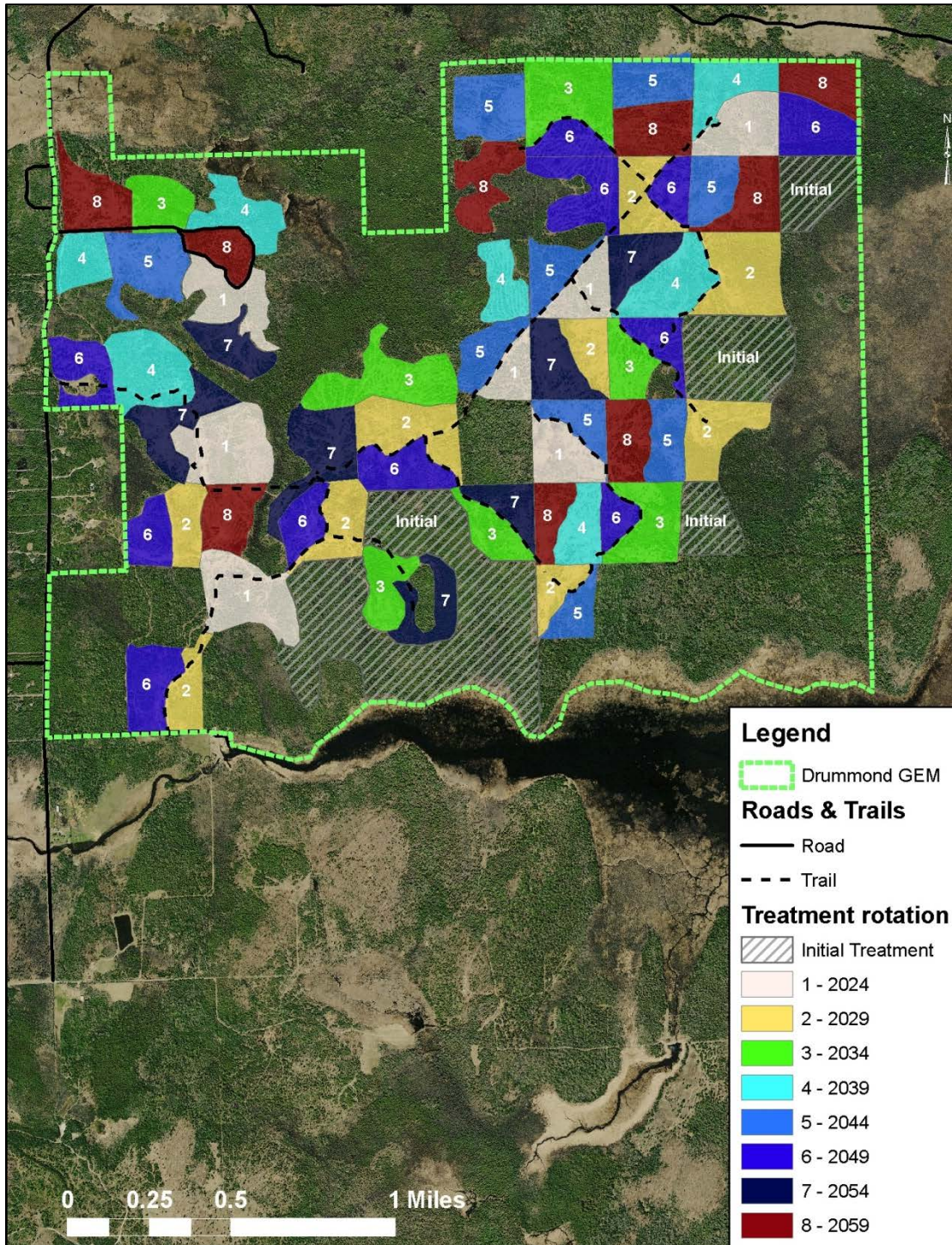


Appendix 2. Drummond Grouse Enhanced Management Area  
Aspen and Lowland Aspen/Balsam Poplar Stands





Appendix 3. Treatment rotation for the Drummond GEM.





Appendix 4. Access points for the Drummond GEM.

