

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES
WILDLIFE DIVISION**

**Management Plan for the
Strickler Grouse Enhanced Management System**



Prepared by:
David Jentoft
Wildlife Biologist
August 1, 2014

Introduction

The Strickler Grouse Management Area was established in 1994 to enhance ruffed grouse habitat through intensive forest management and increase hunter walk-in access to intensively managed grouse habitat. This concept is being expanded through a Grouse Enhanced Management System (GEMS) across the Upper Peninsula (UP). The UP GEMS are intended to be destination sites for grouse hunting across the UP, providing unique opportunities for hunting and wildlife viewing, and ultimately supporting local economies. The Strickler has been used as an example for this concept. This management plan will serve as an update to the original 1994 plan.



The GEMS will benefit grouse and woodcock primarily, but will also bolster habitat for an array of other wildlife species including bear, deer, and snowshoe hare. These areas will be utilized by local and non-resident grouse hunters. The GEMS can also be used as an effective tool for hunter recruitment and retention, as well as a showcase of optimal grouse habitat management for educational purposes. The UP GEMS will support our forest economy and will further tie local communities to our natural resources by capitalizing and expanding on the forest tourism industry, in accordance with the Department of Natural Resources' (DNR) Managed Public Land Strategy.

Inventory

The Strickler Grouse Enhanced Management (GEM) area encompasses approximately 2,165 acres of state forest land east of Naubinway between Borgstrom Road and Hog Island Road in Mackinac County. It is located in portions of sections 10, 11, 14, 15, 21, 22, and 23 of T43N R8W (Appendix 1), and lies within the Strickler Aspen Management Area (Regional State Forest Management Plan/Eastern Upper Peninsula). It is part of Compartments 145, 159, 160 in the Sault Ste. Marie Forest Area. Portions of this land were purchased under special legislation (Act 27, P.A. 1944, and Act 50, P.A. 1944). Aspen, poplar, and birch compose approximately 68% (1,429 acres) of the GEM (Appendix 2). Stands in this area have been managed using the criteria in the 1994 management plan.

The soils consist of sand, fine sand, and muck. Most of the GEM is a complex of these three types. Aspen, poplar, and birch stands are primarily located on sands, while cedar is common on muck soils.

There are three primary points of access to this area where gates are located, two



along the Strickler Truck Trail and one along the Old Stage Road west of Hog Island Road. Gates are located at all three access points. The closed logging trails through the GEM provide foot trails for walk-in access. The entire area is closed to motorized vehicles as a result of a director's order issued in 2001.

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 small blocks to encourage multiple age classes in close proximity to one another. Management activities over the past 20 years have resulted in variable sized stands of primarily young aspen. Future management activities will further enhance the age class diversity and generally reduce individual stand, or treatment, sizes. Some stands are relatively large (≥ 40 acres), and stand or treatment sizes will be adjusted with the goal of having stands in approximately 20 acre blocks. Stand age currently varies from areas that were cut in 2014 to around 80 years. The current age class distribution of the approximately 1,190 acres of aspen and poplar stands is as follows:

- 40% (481 acres) in the 11-20 years old category,
- 31% (364 acres) in the 21-30 year old category,
- 20% (240 acres) in the 0-10 year old category,
- 5% (53 acres) in the 31-40 year old category,
- 4% (51 acres) are over 40 years old (stand ages are ≥ 80).

Three additional mixed stands totaling 29 acres are expected to become aspen types after treatment. Two (21 acres total) are currently awaiting treatments.

Age classes of aspen, poplar, and birch stands will be diversified 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 early. The treatment rotation map in Appendix 3 shows blocks for treatment and the planned treatment rotation for each stand, and Tables 1 & 2 provide details by rotation as well as stand-level details. The rotation will occur such that the area is re-entered on 5 year intervals to treat stands. This will provide a continuous gradient of age classes. The habitat created by these treatments should encourage use of the area by ruffed grouse as well as American woodcock, snowshoe hare, white-tailed deer, and other game and non-game species.

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 ≤ 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 species diversity by leaving cedar, hemlock, and under-represented species. Any oak, dogwood, or other mast-producing species will generally be maintained and promoted. Some trees or shrubs may be planted near or along trails to enhance food resources. Species planted may include wild raisin, dogwood, high bush cranberry, Michigan holly, red oak, beaked hazelnut, and/or other native or naturalized species. Pockets of retention will occur near stand intersections with 2 or more adjacent stands to enhance budding and roosting habitat. Small slash piles may be encouraged during harvest activities where feasible and practical to enhance cover for snowshoe hare.

Goal 2: Enhance the recreational opportunities for hunting.

The primary recreational purpose of this GEM is to enhance the hunting opportunities here, and create a destination for hunting. Similar areas are being developed on state land across the UP. Although the emphasis is on ruffed grouse, the area is intended to be available for pursuing all huntable species, and management should encourage others like woodcock, white-tailed deer, and snowshoe hare. Hunting opportunities will be enhanced using a number of methods, identified in each objective below.

Support a unique hunting experience

The Strickler GEM was the first grouse area established specifically for walk-in grouse hunting opportunities. It will continue to support both a unique walk-in experience and an opportunity for hunting a remote area.

Parking areas will be available at 3 locations in the GEM (Appendix 4). The main parking area will be located at the west entrance to the GEM on the Strickler Truck Trail; a kiosk will be placed at this location. The main entrance is approximately 1.6 miles east of Borgstrom Road along the Strickler Truck Trail. Visitors can also park at other gated entrances located further east along the Strickler Truck Trail, and on the southeast end of the GEM accessed via the Old Stage Road (from Hog Island Road further east).

A kiosk will be placed at the main parking area on the Strickler Truck Trail. This entrance is the most accessible to the public. The parking area will be expanded slightly to accommodate the kiosk and multiple vehicles. DNR staff will work with the Mackinac County Road Commission to place a directional sign for the GEM near the intersection of Borgstrom Road and Strickler Road to point the public toward the GEM. The kiosk will include a map of the area that has the location of other entrances to the GEM. Parking areas at the other entrances will be more limited. Parking space may need to be expanded at the entrance along Old Stage Road on the southeast side of the GEM. Only one vehicle can likely be accommodated by the space there at present.

Signs are present at 2 of the gates identifying the area. One is located at the main parking area, and will be replaced by the kiosk. Any other signs will likely be replaced in the future with a more current sign. Signs restricting motorized vehicle access will be posed at all entrances to clarify the access restraints for motorized vehicles. The Ruffed Grouse Society funded the gates, and continues to partner with the DNR on management of the Strickler GEM. The actions identified in this plan are also intended to aid law enforcement efforts in this area.

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.

There are few, if any, loop trails in the Strickler GEM currently. Hunters and others walking the trails will generally need to return the same direction they walked in. One opportunity has been identified to create one connector trail (Appendix 4). This will be explored with future activities in this area.

A trail map will be posted at the main parking area, and trail signs may be posted in some places to show hunters and hikers the location for better navigation. Trails will require maintenance, which may range from periodic brushing to graveling or other improvements.

Trails will 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 will be sought for at least some of the projects. Interior locations—those ¼ mile or more (by trail) from a parking area—may receive higher priority for planting.

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 DNR by funding gates placed at entrances here. The DNR will continue to seek partnerships 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 was created within the context of promoting a destination for hunters. Public outreach will be needed to identify and promote the area, as well as to direct visitors to the site.

Identify the area

Various methods can be used to identify the area and direct people to the site. The Strickler 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 at the main entrance on the Strickler Truck Trail. A directional sign will be placed along Borgstrom Road. Other directional signs as well as GEM signs may be placed at other locations—along roads or at gates—in the future as the need arises.

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

Establishment of the Strickler GEM has already been and will continue to be communicated through various media. 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 Strickler 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 45th 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.

Managed Public Land Strategy. 1 July 2013. Michigan Department of Natural Resources.
<http://www.michigan.gov/documents/dnr/Draft_DNR_Public_Land_Management_Strategy-5-24-13_422381_7.pdf>. Accessed 23 June 2014.

Minzey, T. W. 1994. Strickler Grouse Management Unit Management Plan. Michigan Department of Natural Resources. 5pp.

Regional State Forest Management Plan/Eastern Upper Peninsula. Michigan Department of Natural Resources. <<http://www.michigan.gov/regionalforestplans>>. Accessed 19 June 2014.

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

Rotation	Year of Entry	Acres
1	2016	142.8
2	2021	82.1
3	2026	87.9
4	2031	178.6
5	2036	129.1
6	2041	180.8
7	2046	164.2
8	2051	252.0
<i>Total:</i>		<i>1217.5</i>

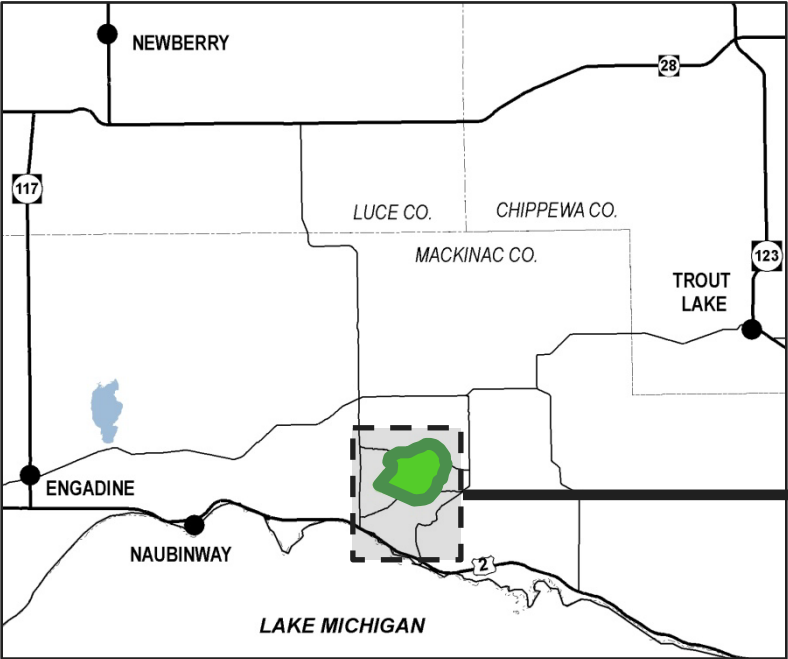
Table 2. Compartment and stand numbers, rotation, and year of entry for harvest treatments.

Compartment	Stand	Age in 2014	Treatment		
			Rotation	Year of Entry	Acres
145	12	25	1	2016	26.7
145	19	81	1	2016	17.9
145	36	86	1	2016	12.3
145	47	24	1	2016	28.1
145	57	96	1	2016	10.9
145	75	96	1	2016	8.8
145	91	82	1	2016	20.4
160	37	39	1	2016	17.8
145	16	34	2	2021	14.7
145	47	24	2	2021	23.4
145	50	25	2	2021	23.1
145	50	35	2	2021	2.7
145	76	35	2	2021	18.2
145	8	16	3	2026	22.3
145	11	23	3	2026	14.7
145	51	17	3	2026	19.4
145	62	86	3	2026	8.8
145	68	23	3	2026	22.7
145	12	25	4	2031	30.2
145	15	22	4	2031	30.7
145	47	24	4	2031	20.7
145	50	25	4	2031	41.1
145	68	23	4	2031	18.3
145	69	22	4	2031	13.5

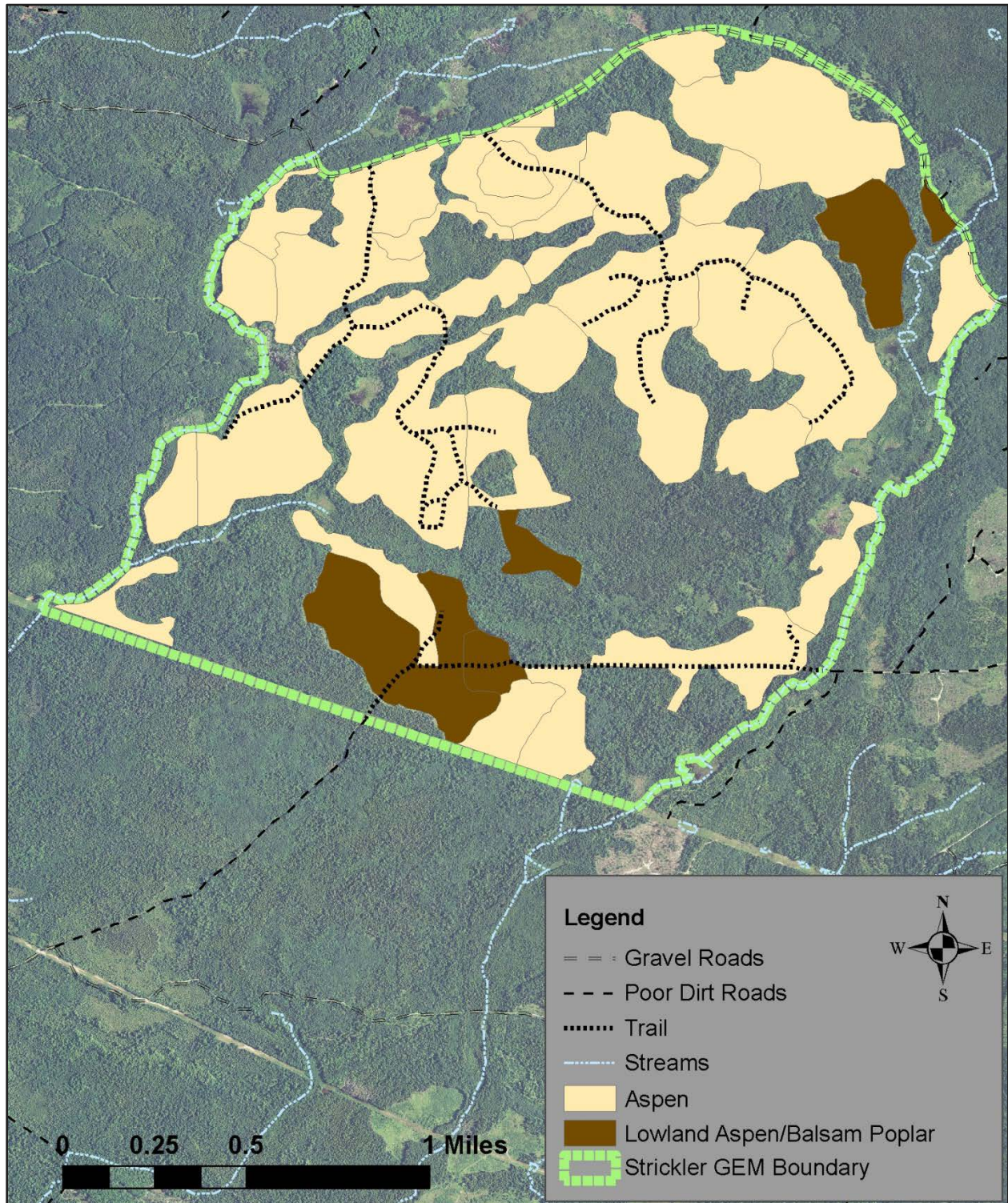
Table 2 continued. Compartment and stand numbers, rotation, and year of entry for harvest treatments

Compartment	Stand	Age in 2014	Rotation	Treatment	
				Year of Entry	Acres
145	72	3	4	2031	24.1
145	30	4	5	2036	20.3
145	48	17	5	2036	29.4
145	51	17	5	2036	22.2
145	60	2	5	2036	18.1
145	65	11	5	2036	24.0
145	68	23	5	2036	15.2
145	25	15	6	2041	9.7
145	34	15	6	2041	15.1
145	47	24	6	2041	20.9
145	50	25	6	2041	16.5
145	51	17	6	2041	22.0
145	56	12	6	2041	19.8
145	68	23	6	2041	18.5
145	70	12	6	2041	5.2
145	96	11	6	2041	24.9
145	97	11	6	2041	28.1
145	7	16	7	2046	13.6
145	44	4	7	2046	17.4
145	45	11	7	2046	29.6
145	48	17	7	2046	27.4
145	52	14	7	2046	33.1
145	72	3	7	2046	15.0
145	81	11	7	2046	13.6
160	39	11	7	2046	14.5
145	18	2	8	2051	12.3
145	30	4	8	2051	21.4
145	32	4	8	2051	27.1
145	51	17	8	2051	26.5
145	51	17	8	2051	15.4
145	56	12	8	2051	21.0
145	60	2	8	2051	21.7
145	71	11	8	2051	27.5
145	72	3	8	2051	42.4
145	94	3	8	2051	19.7
145	97	11	8	2051	16.9

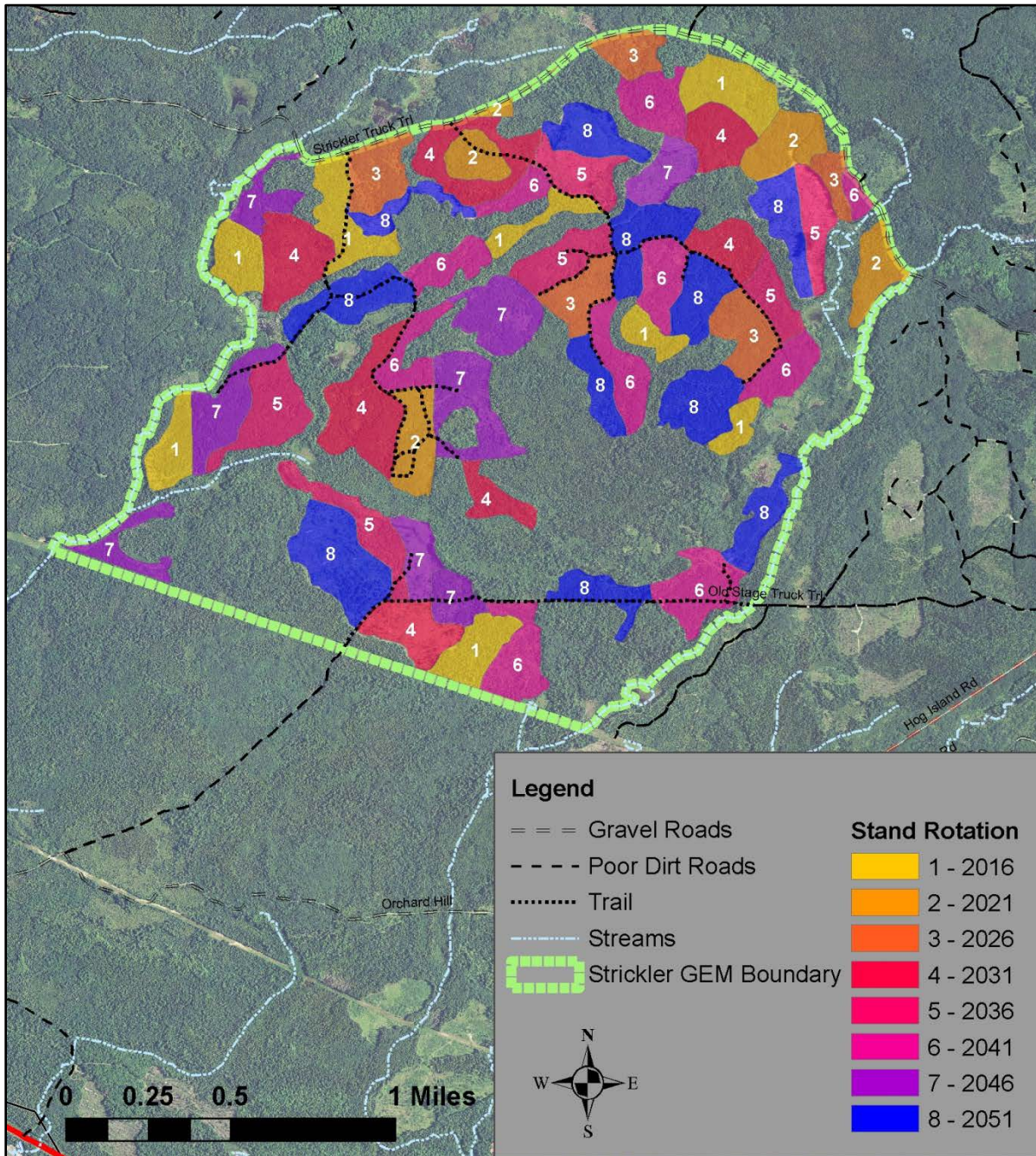
Appendix 1. Location and boundary of the Strickler Grouse Enhanced Management (GEM) System.



Appendix 2. Strickler Grouse Enhanced Management System
Aspen and Lowland Aspen/Balsam Poplar Stands



Appendix 3. Treatment rotation for the Strickler Grouse Enhanced Management System (stand rotation: rotation number – year of entry).



Appendix 4. Access points for the Strickler Grouse Enhanced Management System.

