

MICHIGAN DEPARTMENT OF NATURAL RESOURCES  
WILDLIFE DIVISION

**Management Plan for the  
Garden Grade Grouse Enhanced Management Site (GEMS)**



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## **Introduction**

The Garden Grade Grouse Enhanced Management Site (GEM) is being developed to promote ruffed grouse habitat and hunting opportunities in the South Central Upper Peninsula (UP). The Garden Grade GEM is one of a growing number of GEMS spread across the UP Region (Figure 6). GEMS are a collection of intensively managed lands spread across the Peninsula to provide walk-in hunting opportunities. These areas will act as destination sites for grouse hunters, while providing a unique opportunity for hunting and wildlife viewing, and ultimately supporting local economies.

The GEMS will benefit grouse and woodcock primarily but will bolster habitat for an array of other wildlife species including bear, deer, turkey and snowshoe hare. These areas will be utilized by local and non-resident grouse hunters. Also of great importance, GEMS can 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 the forest tourism industry, in accordance with the Department's Land Management Strategy. MDNR Wildlife staff will build a reciprocal relationship with community leaders and local businesses by advertising GEMS throughout the UP Region. Signs will be posted at each site.

## **Inventory**

The Garden Grade GEM is located in parts of Schoolcraft and Delta Counties. In Schoolcraft County, the GEM is located in sections 31 and 32 of T41N R17W. In Delta Co., the GEM is located in sections 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23 and 24 of T40N R18W (Figure 1). The GEM is approximately 7,000 acres in size with a perimeter of 17.6 miles. Aspen forest comprises approximately 35% (2,440 acres) of the GEM (Figure 2). Additional acreage of early successional aspen will be available after mature stands of conifer and hardwood (which contain an aspen component) are harvested in the near future. Other cover types within the Garden Grade GEM include northern hardwood, northern white cedar, upland conifer, lowland conifer, oak and grasslands, all of which are important in meeting life requisites for a variety of game and non-game wildlife species.

There is one primary access point to this area, from which a network of forest roads/trails originates. Other trails will be added to the network as a result of logging activity in the area.

This network of closed logging roads throughout the GEM provides forest trails that are only available through walk in access. The primary access point is Garden Grade Road, originating off of Highway US-2, between the villages of Thompson and Garden Corners (Figure 4). Gates and/or berms will be placed at various locations throughout the GEM to block vehicular traffic creating many walk-in hunting only areas in the GEM (Figure 4).

## MANAGEMENT ACTIONS

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

#### Aspen Management

Ruffed Grouse prefer young stands of aspen (<25 years old) with high stem densities for nesting habitat. Older trees that provide sites for roosting and budding are also an important component. Grouse feed on buds, catkins, leaves, and also on the flower buds of older aspen (>25 years old) (Hammill and Visser, 1984). Thus, various age classes are important to grouse. Aspen stands also serve an important purpose for other wildlife. Woodcock prefer young aspen growth, especially when in association with moist soils where they can probe for earthworms and invertebrates with their long beak. Aspen also provides browse and cover for white-tailed deer and snowshoe hare. Edges that are created between young and old stands as well as with other cover types such as cedar, northern hardwood and grassy openings are also used by many species, including those mentioned above.

Aspen is a shade intolerant species, therefore stands are managed via clear-cutting, which allows adequate sunlight to promote growth. Cutting itself also tends to spur growth of these species through root sprouting or clones. White Birch, often a component of aspen stands and another important tree for ruffed grouse and other species, like aspen, does best in full sunlight.

Aspen stands will be managed in small blocks to encourage multiple age classes in close proximity to one another, promoting better grouse habitat. Stand age currently varies from 0 (recently harvested) to 45 years, but the majority of stands (72 % of aspen) are 21 years or older. This provides ample opportunity to create varying age classes throughout the GEM. Conifer inclusions within aspen stands are an important source of escape cover for grouse so such stands will be managed to support this component (Hammill and Moran, 1986). Efforts will also be made to maintain stand diversity by retaining cedar, hemlock, and other under-represented species in the stands. Any mast producing species will generally be maintained and promoted. We will also attempt to rotate decadent alder by chipping those stands on occasion and as equipment availability allows.

Future management will focus on diversifying age classes of aspen with the goal of having up to 8 age classes at one time, with stands of varying age classes in close proximity to one another. To accomplish this, older areas will be treated first, with the youngest stands being treated last in the rotation. The treatment rotation map (Figure 3) shows blocks for treatment and the planned treatment rotation for each stand. Stands will be treated over 5 year intervals. Planned rotation allows for approximately 305 acres of aspen to be cut every 5 years, ensuring age class diversity (Table 2). The habitat created by these treatments should encourage use of the area by ruffed grouse as well as other game and non-game species.

#### Soft and Hard Mast Production

Grouse usually have a wide array of foods available to them but we will attempt to bolster soft and hard mast production in the Garden Grade GEM. Wild raisin, crabapple, highbush

cranberry, dogwood species, Michigan holly, mountain ash, thornapple, black cherry, red oak, burr oak, beaked hazelnut and others may be good candidates for planting. Many of the above listed species will be planted along the trail system as well as along the edges of the many forest openings/grasslands found within the GEM.

### Grassland Opening Maintenance and Road Seeding

The network of small and large grass openings (Figure 5) will be maintained as such and a portion of those grasslands, along with woods roads and skid trails, may be planted to a forage mix consisting primarily of clover or a Ruffed Grouse Society approved mixture composed of Alsike White, White Dutch, Haifa New Zealand White, Crimson, Jumbo II Ladino, and Duration Red clover species. There are 144 total acres of openings in this GEM where opening maintenance (clover planting, succession setback, hard and soft mast plantings) will be conducted (Table 1). Some portions of openings will be used as parking areas as well.

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

The primary purpose of the GEM is to enhance the hunting opportunities here, and create a destination for grouse and other hunters. Similar areas are being developed on state land throughout the UP. Although the GEMS primary emphasis is on ruffed grouse, the area is intended to be available for hunting all game species and management should encourage others such as white-tailed deer, woodcock, and snowshoe hare.

### Support a unique hunting experience

The Garden Grade GEM will be able to offer hunters both a unique walk-in experience and the opportunity to hunt an intensively managed area for ruffed grouse and other species.

Parking areas will be available at several locations in the GEM (Figure 4). These areas are located off of the Garden Grade Road, in front of proposed gates, where one or two vehicles may park. These areas access the primary trail network for the GEM. Hunters can then park in these small, improved/unimproved parking areas, and will then be able to walk in and hunt behind the gates. The main parking area is located on the east side of the Garden Grade, where a kiosk will be present, and hunters will be able to hunt the surrounding aspen stands.

A kiosk will be placed at the main parking area, to better identify the GEM, recognize our local stakeholders, and clarify the access restraints for motorized vehicles. Signs will be placed at other parking areas, helping to identify them. Ten (10) gates will be placed on existing roads/two tracks labeled as “Walking Trails” that originate off of the main “GEM Roads” (Figure 4), to prevent vehicular access into the GEM.

### Maintain and create a trail system for hunters and other users.

Existing forest roads that are a result of past logging activities currently provide a trail system throughout the GEM. These are unmarked roads, generally unimproved, and are basically linear forest openings. Some have young forest regeneration in them and others have been kept open

due to ATV or vehicle usage. Other trails will also be created due to future logging activities in the GEM. These will then be maintained as walking trails to better access areas of the GEM that currently may be difficult to access.

Trail signs or kiosks will be posted in some locations, mainly near parking areas, to provide a map and/or location directions from different starting points. Trails will require maintenance, which will include periodic brushing, graveling, planting, or other improvements.

Some trails will be planted with herbaceous vegetation such as legumes or grasses. This will occur in conjunction with other management activities that require the use of the trail system, such as logging, or as independent projects. Partnerships with stakeholders, such as the Ruffed Grouse Society, will be sought for some of the projects. Planting locations will generally be located towards the interior of the GEM- generally at least a ¼ mile from parking areas.

#### Establish partnerships to assist in management

WLD staff will submit annual budget requests over the next decade to perform the above-noted habitat work. We are in contact with the Ruffed Grouse Society and are hopeful of a long term partnership with them in each of our proposed GEMS. Other financial opportunities will be explored when available, including ongoing partnerships with the UP Bear Houndmen Association, UP Whitetails, and the National Wild Turkey Federation.

### **Goal 3: Public Information and Outreach**

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

#### Identify the area

Various methods can be used to identify the area and direct people to the GEM. The Garden Grade GEM will be identified on the MI Hunt program, and it will be promoted as a part of the UP GEMS. Once on site, signs/kiosks identifying the area will be placed near parking areas on the Garden Grade. Pamphlets identifying the GEM can be handed out to local businesses to distribute to the public.

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

Establishment of the Garden Grade GEM will be communicated to local stakeholders for promotion in the Escanaba/Manistique/Garden area. Local businesses will be able to use the GEM as a tool to promote tourism to the area. Once established on the MI Hunt program and other media, the Garden Grade GEM can be advertised or promoted by local businesses to encourage tourism. This will also allow anyone with computer internet access to plan their hunt to the GEM from anywhere in the world. Although, difficult to quantify, the GEM will likely 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.

Hammill, 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.

Jentoft, David. 2013. Management Plan for the Drummond Grouse Enhanced Management Area. Michigan Department of Natural Resources, Wildlife Division.

Table 1. Garden Grade GEMS Openings

Compartment	Stand Number	Acreage	Treatment
087	16	12.5	Opening Maintenance
088	405	34.0	Opening Maintenance
088	429	10.0	Opening Maintenance
088	432	10.0	Opening Maintenance
089	21	2.1	Opening Maintenance
089	26	4.3	Opening Maintenance
089	29	1.2	Opening Maintenance
089	31	2.2	Opening Maintenance
089	35	7.0	Opening Maintenance
089	37	2.4	Opening Maintenance
089	39	9.4	Opening Maintenance
089	42	1.6	Opening Maintenance
089	46	2.7	Opening Maintenance
089	54	5.7	Opening Maintenance
090	400	3.0	Opening Maintenance
090	401	2.0	Opening Maintenance
090	404	18.0	Opening Maintenance
091	25	10.2	Opening Maintenance
091	33	5.5	Opening Maintenance
<b>Total Acreage</b>		<b>143.8</b>	

Table 2. Garden Grade Aspen Treatment by Year

Compartment	Stand Number	Acreage	Treatment Rotation
087	44	34.7	5,7
087	7	30.1	3
087	17	19.3	4
087	34	61.4	5,6,7
088	21	75	1,2,3
088	4	6	8
088	6	47	7,8
088	34	9	6
088	18	45	6,8
088	63	10	5
088	57	16	1
088	28	22	2
088	7	72	2,3,4,5
088	17	32	4
088	68	53	7,8
088	27	29	4,5
088	72	4	2
088	58	18	1
089	25	36.2	5, 8
089	48	159.5	1,3,4,5,6,7
089	34	90.1	5,6,7,8
089	56	57.0	7,8
089	41	6.1	7
089	43	4.8	4
089	38	129.8	6,7,8
089	33	61.7	5,6
089	47	138.8	2,3,4,5,6,7
089	40	14.8	3,5
089	19	104.6	1,2,3,4
089	23	18.6	8
090	20	35.0	2,6
090	2	43.0	1,2
090	10	65	1,2,6
090	6	11	8
090	9	65	1,3,8
090	17	27	5,8
090	62	170	1,2,3,4,7
090	79	23	1
090	66	13	2
090	59	4	6
090	84	11	2

090	1	21	5
090	16	8	8
090	50	17	7
090	48	30	6,8
090	30	126	1,4,5,6,7
091	26	27.9	3,7
091	32	4.5	6
091	15	5.7	2
091	18	19.4	4
091	30	34.9	6,7
091	61	30.4	3,8
091	24	5.3	7
091	64	28.1	4,5
091	23	3.3	2
091	44	8.1	2
091	47	4.0	1
091	45	15.2	8
091	40	62.1	2,4,5
091	57	81.2	1,2,3,4
091	53	35.8	3,6
<b>Total Acreage</b>		<b>2440.4</b>	
<b>Treatment Rotation by Year (approx.)</b>		<b>1=2017 2=2022 3=2027 4=2032 5=2037 6=2042 7=2047 8=2052</b>	

Figure 1. Location and boundary of Garden Grade Grouse Enhanced Management System (GEM).

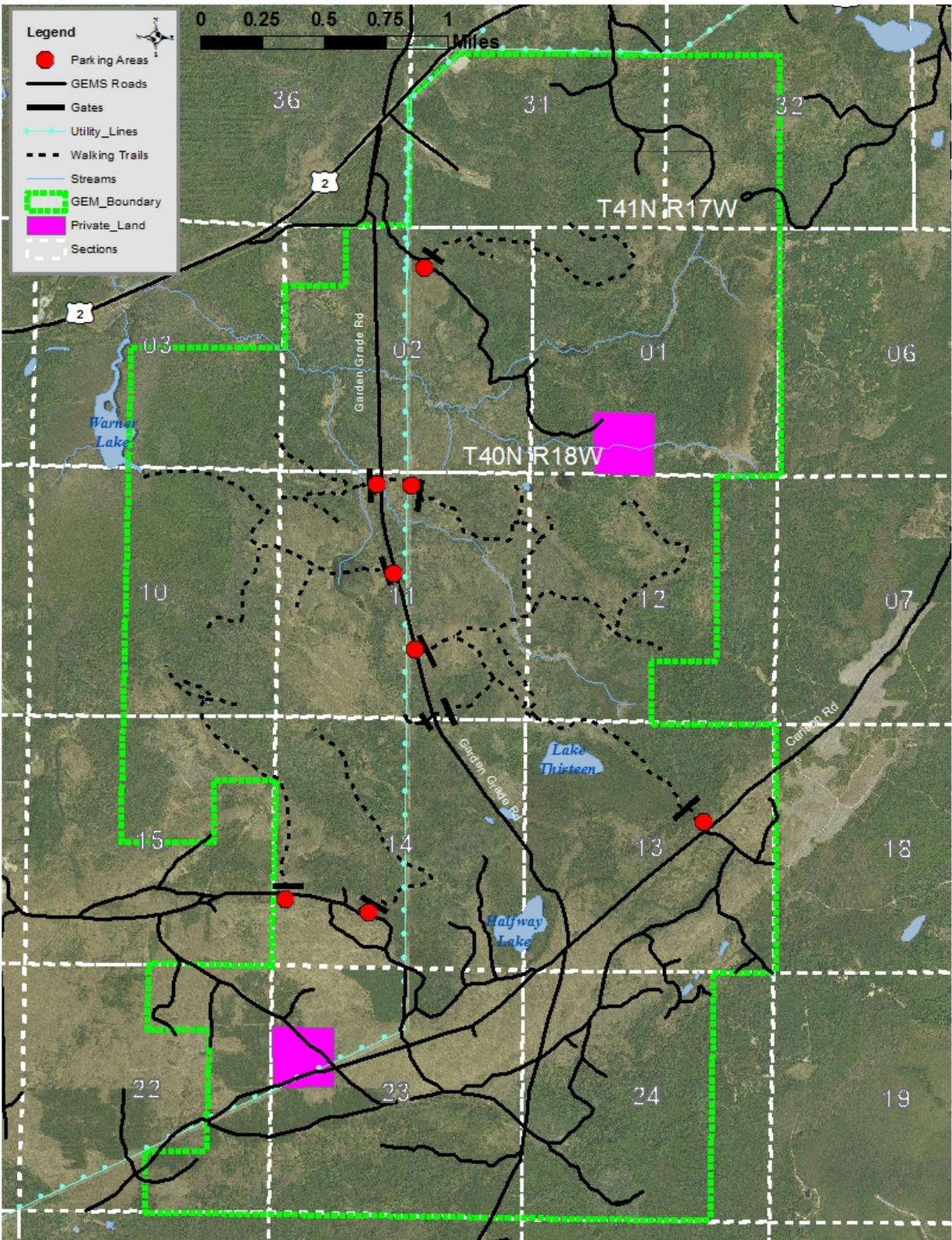


Figure 2. Garden Grade GEM Area Aspen Stands.

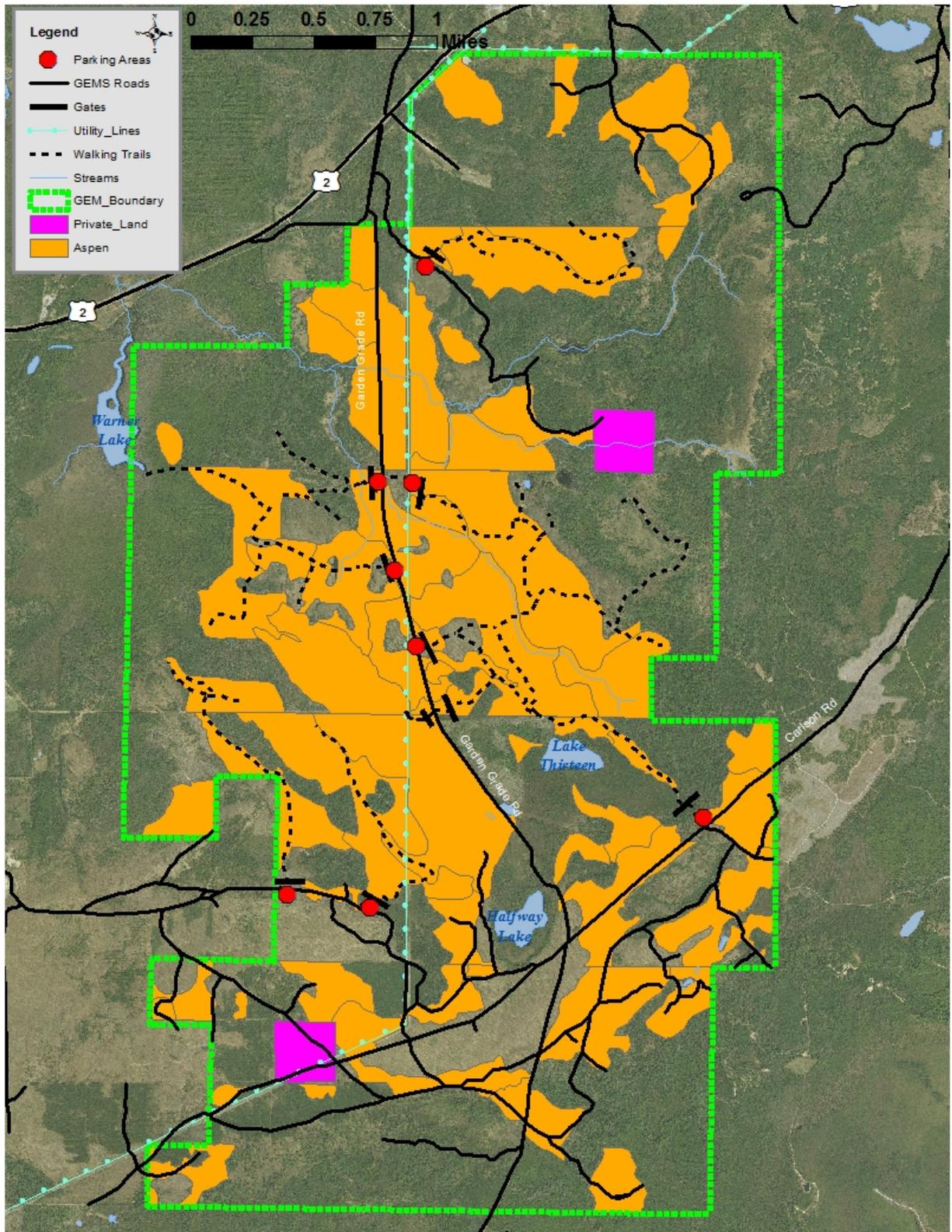


Figure 3. Treatment Rotation for the Garden Grade GEM.

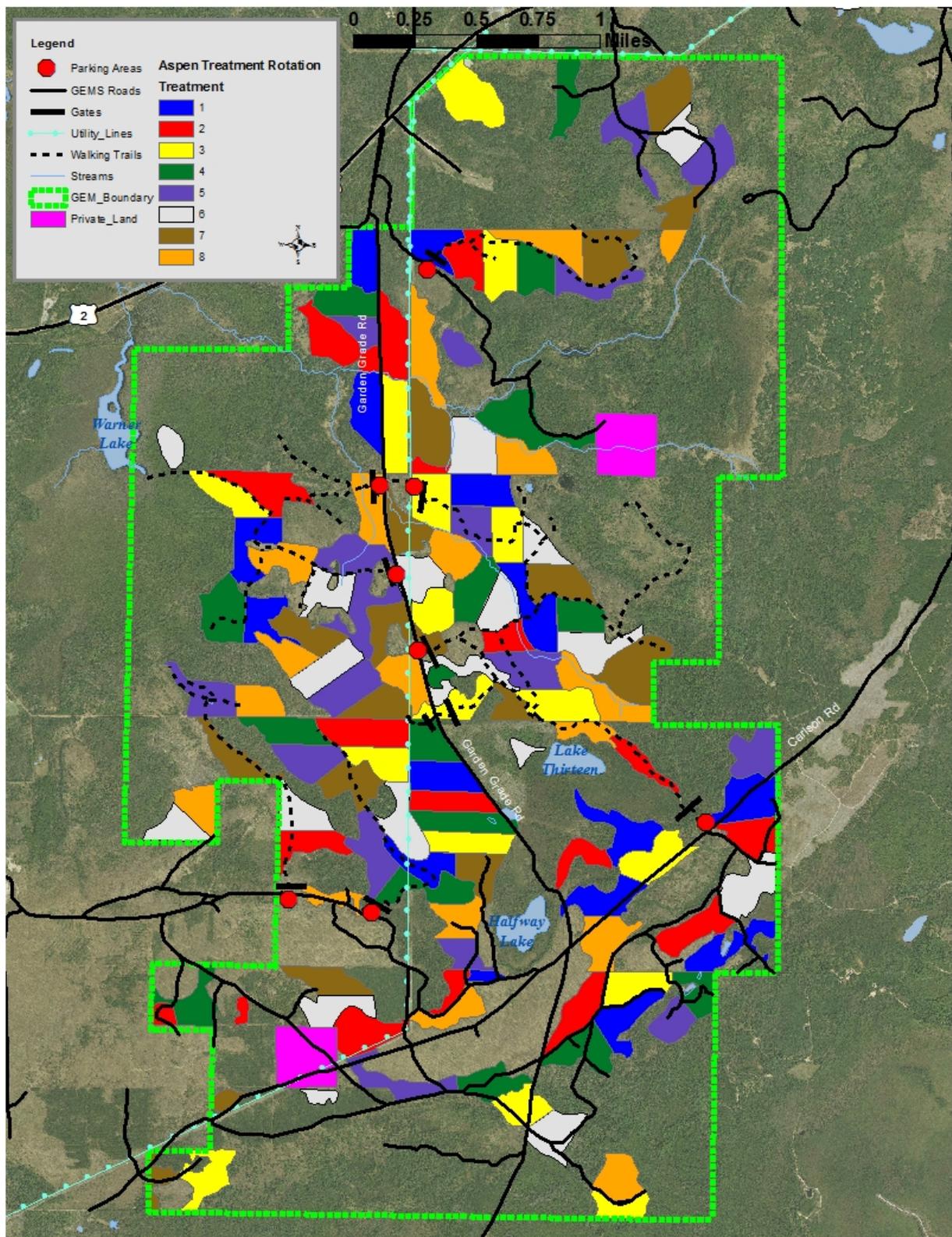


Figure 4. Access points for the Garden Grade GEM.

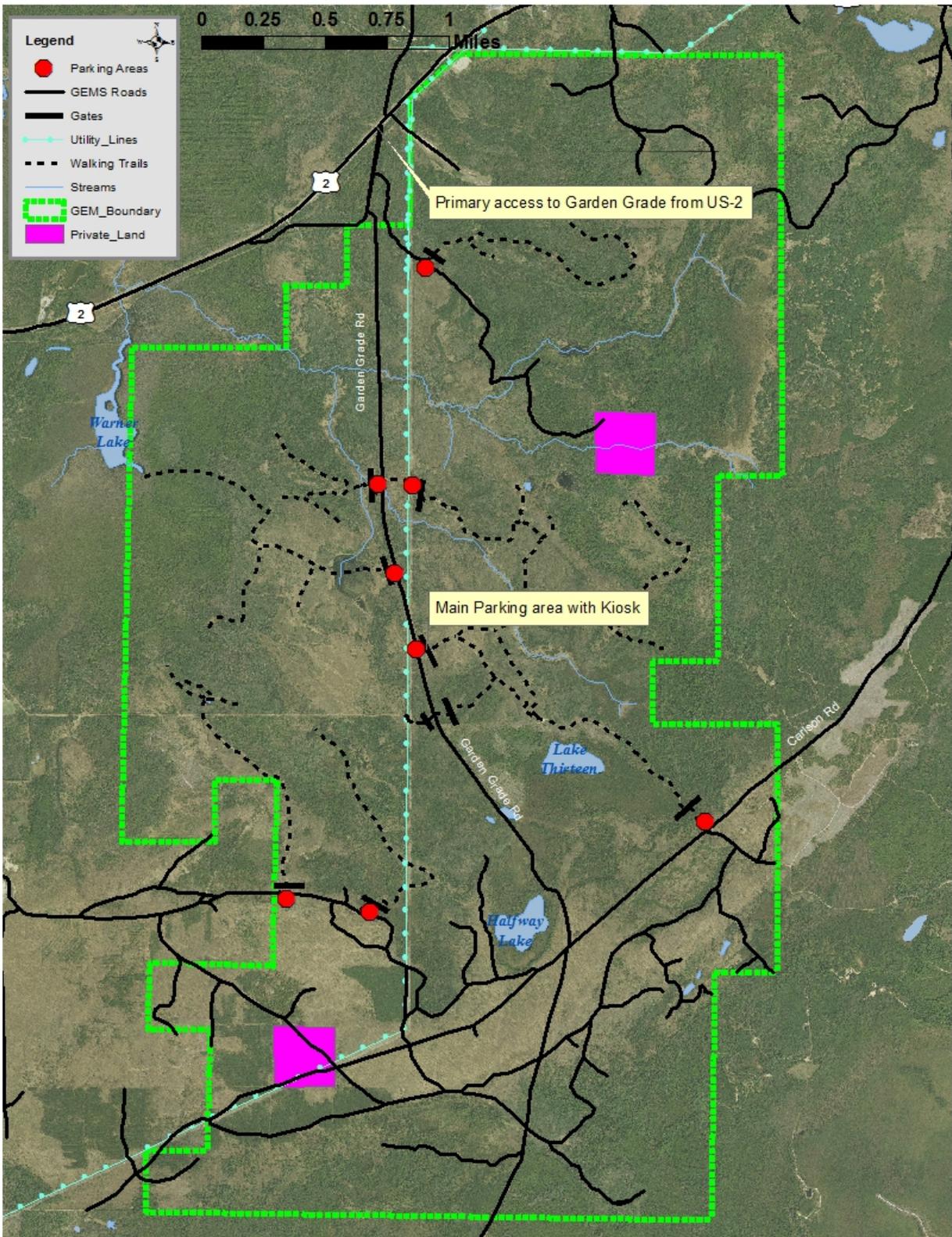


Figure 5. Garden Grade GEM Openings.

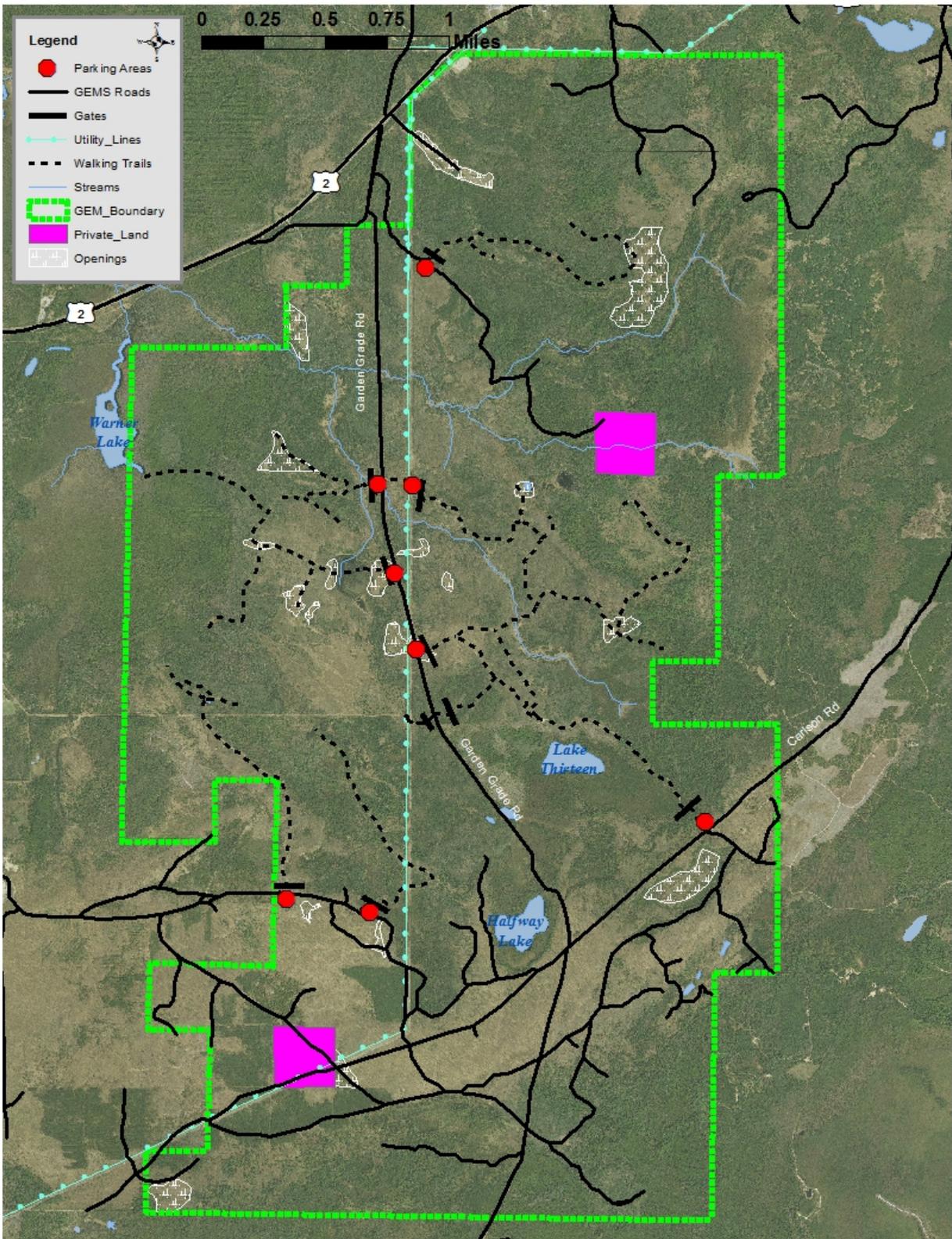


Figure 6. Upper Michigan GEMS Locations.

