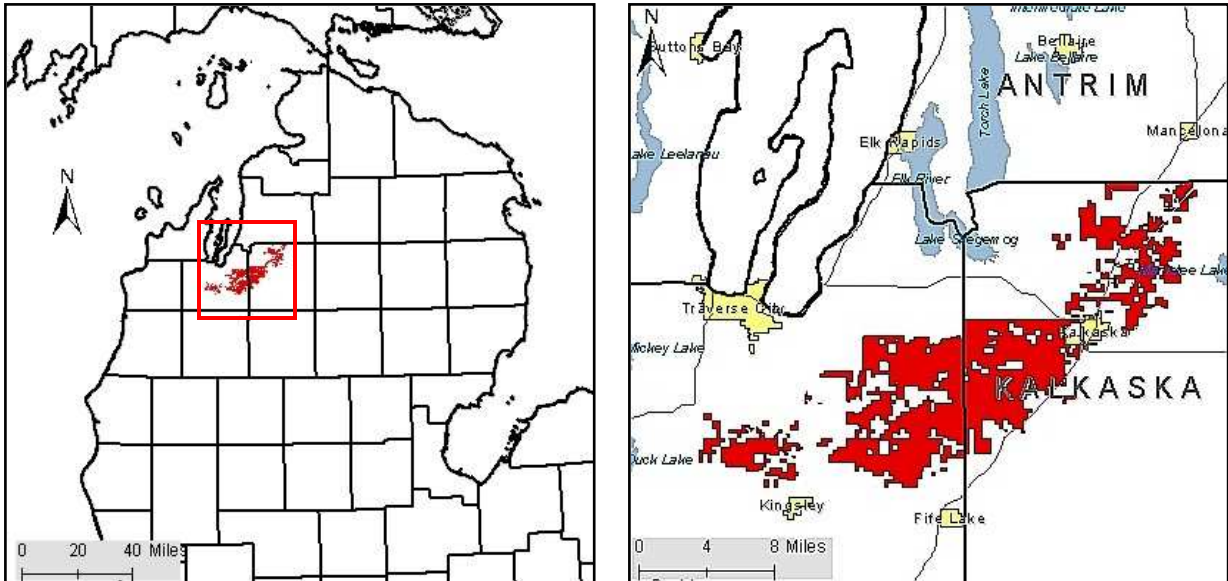


Boardman Plains Management Area



Attributes

The Boardman Plains Management Area management area is located east of Traverse City in Grand Traverse County and Kalkaska Counties and has 70,720 acres of scattered State Forest land. The primary attributes which were important in identifying this MA include:

- Ecological Classification –The MA falls within the Grayling Outwash Plain sub-region of the NLP Ecoregion as classified by Albert (1994).
- Cover Types – Cover types were historically dictated by fire occurrence. On the most fire-prone sites, xeric conifer and barrens were predominant, on the less fire-prone sites mixtures of white pine, other conifers and oak were present, on the least fire prone sites forests of American beech and sugar maple predominated. Currently state forests in this area are a mixture of aspen, oak, red pine, jack pine and upland hardwoods.
- Landforms - More than 96% of the MA is outwash plain.
- Social and Economic - This management area includes portions of the VASA single track, VASA ski trail and North Country Trail and is heavily used for recreation. There are numerous active and abandoned oil or gas wells associated with the Niagara and Antrim geologic formations and future oil/gas storage facilities may be located here.

Major Cover Types

- Aspen - Approximately 19,938 acres of aspen is distributed throughout the MA on plains, ice contact ridges, rolling till plains and end moraines. There is one notable spike in the aspen age distribution between the ages of 30-39 years.
- Oak- Oak is located on the moraine ridges, moraines and till areas and covers approximately 11,421 acres. The vigor of the oak is good, and it is an important contributor to wildlife habitat and forest diversity. Current stands originated largely as a

result of the wildfires in the early 1900's. Oak age classes are heavily skewed toward the older age classes in the 80-100+ year range.

- **Red Pine** – Red pine is found throughout the MA and covers approximately 10,384 acres with age spikes between 10-19 and 40-59 years. The 40- 59 year old red pine is largely a result of active planting campaigns.
- **Jack Pine** – Totals approximately 9,640 acres and is found throughout the area. The age class distribution is fairly evenly distributed, with the exception of a spike from ages 40-89.
- **Northern Hardwoods/Upland Hardwoods** – Upland hardwoods comprise approximately 6,800 acres with most of the acres in uneven aged stands on high quality sites. Lower quality sites are still largely even aged.
- **Upland Brush/Grass** – Grass and upland brush totals approximately 5,584 acres which is a result of the past management practices or natural processes of fire, frost or other disturbances which create openings in the forest canopy along with maintenance treatments to keep areas open.

Boardman Plains			Age Class (Years)											Uneven Aged
Cover Type	Acres	%	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	
Aspen	12,938	18%	669	1,820	2,176	3,521	1,750	651	879	643	583	140	28	78
Oak	11,421	16%	14	28	311	176	17	48	437	892	2,579	3,641	2,894	384
Red Pine	10,384	15%	67	1,688	817	432	1,472	2,192	823	914	731	235	324	689
Jack Pine	9,640	14%	964	568	372	993	1,293	1,481	1,003	1,051	1,526	182	20	187
Upland Hardwoods	6,802	10%	0	131	262	113	107	573	159	115	304	56	34	4,948
White Pine	3,503	5%	21	2	59	233	991	248	489	343	318	62	233	504
Mixed Swamp Conifers	2,089	3%	0	0	0	0	10	158	24	355	542	204	83	713
Upland Brush	2,832	4%												
Grass	2,752	4%												
Lowland Brush	1,267	2%												
Water	667	1%												
Other Types	6425	9%												

Total 70,720

Other Types include: Cedar, Swamp Hardwoods, Upland Mixed Deciduous, Lowland Poplar, Upland Mixed Conifers, Marsh, Spruce-Fir, Bog, Hemlock, Tamarack, Sand Dune, and Black Spruce.

Concepts of Management

- **Aspen (18% of the MA)** – Largely due to the poorer quality sites for aspen most of the management will occur in the 40-59 year age classes. On better sites some aspen in the 30-39 age class may be harvested to begin the process of balancing the age class distribution. Steep terrain and/or visual quality limitations on treatments in proximity to the VASA single track and trail has made some aspen in unavailable for treatment as shown by the acres in the older age classes. Aspen on these sites will be allowed to succeed to later successional species.
- **Oak (16% of the MA)** – Regenerate oak where feasible, using selection and clearcut harvests and prescribed burning to control competition. Plant red or white pine as a cover for oak and manage some areas as mixed oak/pine stands. Due to the decline in the current oak due to age and condition and the difficulty of regenerating oak, it is expected that oak acres will decline in this MA.

- Red Pine (15% of the MA) – Following the Red Pine Management Guidelines, address the age class spike of red pine and trough of regeneration. Harvest aggressively in the age class spikes between 40-59 years and regenerate suitable red pine areas through planting or prescribed fire to encourage natural regeneration. Allow selected areas of managed red pine to reach biological maturity. Following the Within Stand Retention Guidelines allow selected individual red pines in other cover types to become super canopy specimens.
- Northern Hardwoods/Upland Hardwoods (10% of the MA) – Continue to manage upland hardwoods as uneven aged stands through selective harvesting, especially areas with a basal area above 111 square feet on the mesic to rich nutrient sites. Selectively harvest other sites with basal areas from 81-110 if needed. Continue to manage upland hardwoods on lower quality sites as even-aged stands.
- Upland Brush/Grass (8% of the MA) - Continue opening maintenance by prescribed burning and brush removal to maintain upland brush/grass acres at a level suitable for wildlife.