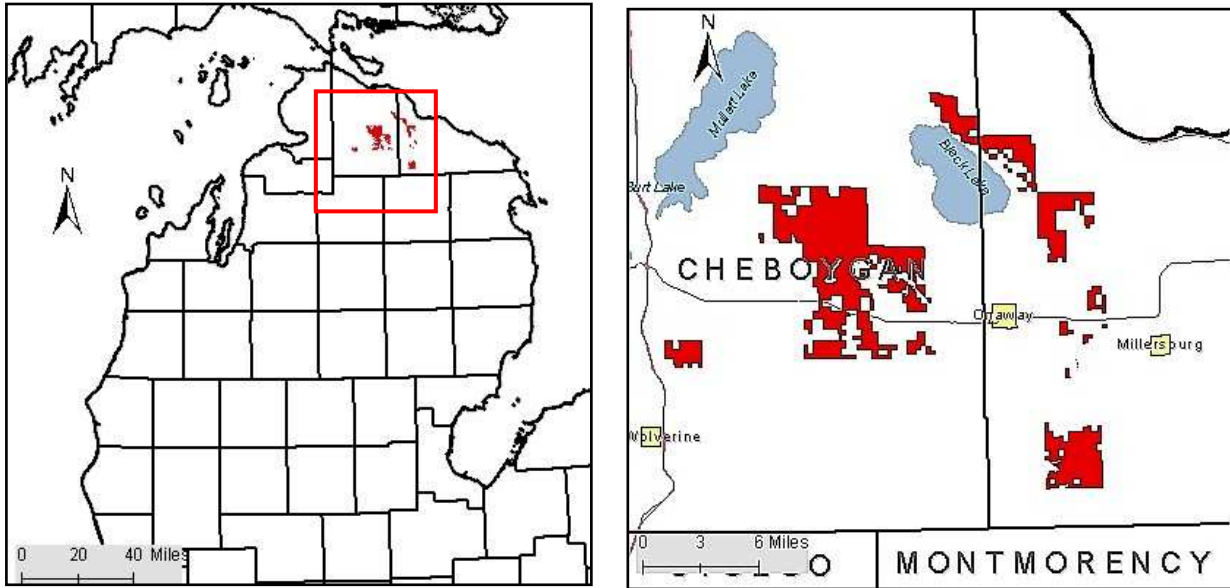


## Cheboygan Basin Moraines Management Area



### Attributes

The Cheboygan Basin Moraines Management Area is located in the Cheboygan River watershed in Cheboygan and Presque Isle counties and has approximately 38,000 acres of scattered and diverse State Forest land. The primary attributes which were important in identifying this MA include:

- Ecological Classification - The MA falls within the Onaway sub-region of the NLP Ecoregion as classified by Albert (1994).
- Cover Types - Historically, northern hardwoods were prominent and there was very little aspen. In areas influenced by more frequent fires from adjacent drier areas, pine was prominent. The current vegetation composition is mostly aspen, red pine, northern hardwoods, lowland poplar, and jack pine. The state forest land in this MA has very limited (7%) relatively inaccessible lowland cover types.
- Landforms - The dominant landform consists of rolling to moderately sloping ground moraine topography. Drumlins are common and are typically separated by poorly drained outwash.
- Cultural – Increased development and the resulting increase in use of State Forest lands has resulted in adverse impacts, particularly ORV damage.

### Major Cover Types

- Aspen - About 37% of the MA, 14,000 acres, is covered by aspen with approximately 3,300 acres in the 60+ year age class of questionable operability due to poor access. The aspen younger than age 60 has a fairly well balance age class structure.
- Red Pine - Most of the 5,400 acres of red pine (both natural and planted origin) originated before WWI, with approximately 2,000 acres in the 70–79 years age class. Much of the pine has an oak component and there has been very little regeneration of red pine over the past 40 years.

- Northern Hardwood/Upland Hardwoods – Most of the upland hardwood is over 70 years of age. Northern hardwood quality varies considerably by location. Composition consists of a mixture of red maple, beech, aspen and oak and these types are best suited for even aged management.
- Lowland Poplar and Swamp Conifers – Younger age classes are under-represented. Most of these cover type acres originated when they were harvested in the early to mid-20<sup>th</sup> century.
- Oak – The oak in this MA is quite old, with 85% over 70 years of age. There is natural white pine regeneration on some sites.

Cheboygan Basin Moraines			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	13,875	37%	781	2,001	2,314	2,990	2,326	287	613	1,764	586	62	0	151
Red Pine	5,387	14%	17	27	72	10	749	729	992	2,042	286	119	80	264
Upland Hardwoods	2,673	7%	0	20	0	16	44	18	350	411	324	0	0	1,490
Lowland Poplar	2,564	7%	23	166	603	218	140	146	243	610	353	12	36	14
Mixed Swamp Conifers	2,559	7%	0	66	5	4	8	70	206	628	472	900	110	90
Oak	2,308	6%	34	25	0	0	11	0	236	733	764	218	59	228
Jack Pine	1,447	4%	78	283	63	46	120	157	524	176	0	0	0	0
Lowland Brush	1,853	5%												
Grass	1,529	4%												
Water	194	1%												
Upland Brush	193	1%												
Other Types	3,323													
Total		37,905												

Other Types include: Cedar, Swamp Hardwoods, Black Spruce, Marsh, White Birch, Spruce-Fir, Bog, Hemlock, Sand Dune.

**Concepts of Management**

- Aspen (37% of the MA) – Focus management to maintain a balanced distribution of the 0-59 year age classes by targeting the 40–49 year age class. A considerable portion of the aspen falls into the LeGrande aspen project where harvest schedules have been timed to balance age classes. Harvest the 70 and older year age classes if accessible. Allow inoperable areas to succeed to more shade tolerant species.
- Red Pine (14% of the MA) – Follow the Red Pine Management Guidelines to balance the age class distribution particularly in the 80–89 year age class. Where accessible, harvest older stands 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. Much of the red pine is concentrated in Black Mountain Recreation Area where proximity to the many trails in the area may limit management treatments options.
- Lowland Hardwoods and Conifers (14% of the MA) – Consider regeneration if harvests can be done in a manner that avoids adverse impacts to wetland soils and if deer browsing can be minimized.
- Upland Hardwoods (7% of the MA) – Evaluate stands to determine suitability for single-tree selection management. Conduct even-aged management for sites not suited for selection management, specifically targeting those stands that have an aspen component.
- Oak (6% of the MA) - Improve age class distribution and promote/re-introduce pine seed sources to promote mixed white pine-oak communities.