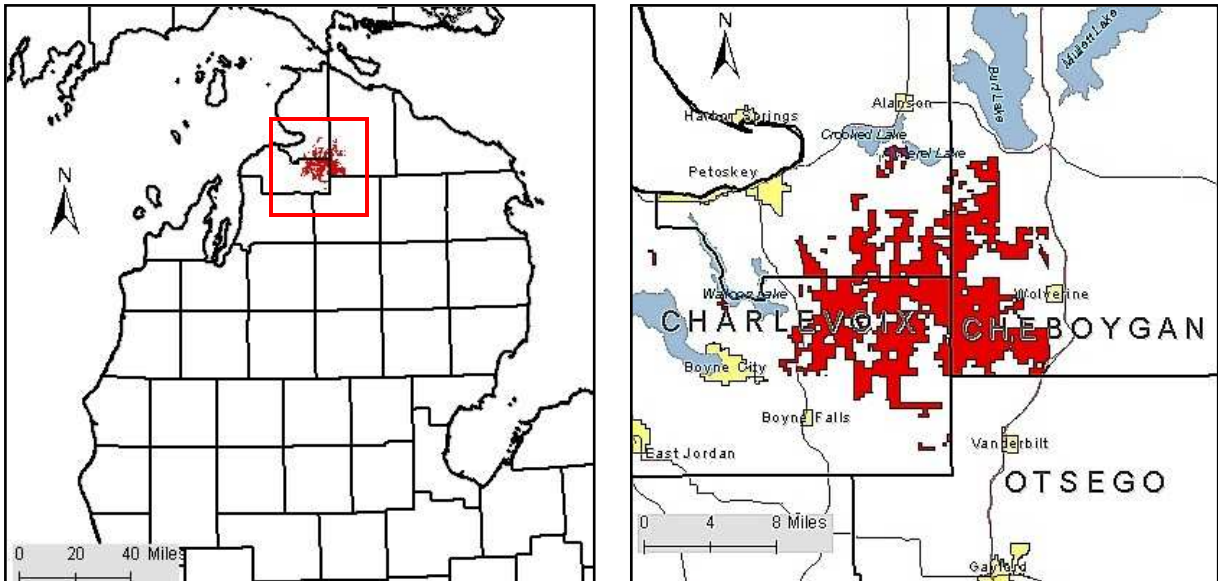


Chandler Hills Management Area



Attributes

The Chandler Hills Management Area is located in high plains of southern Cheboygan County and eastern Charlevoix County and has approximately 67,000 acres of State Forest land. The primary attributes which were important in identifying this MA include:

- Ecological Classification - The MA falls within the Vanderbilt Moraines sub-region of the NLP Ecoregion as classified by Albert (1994).
- Cover Types - Historically, northern hardwoods were prominent on virtually all the upland acres. The current vegetation composition is mostly northern hardwoods, aspen and red pine. Five percent of the MA is in inaccessible lowland cover types.
- Landforms - The dominant landform consists of sandy, well drained moraine ridges surrounded by poorly drained outwash channels and plains.
- Ownership size and connectivity – The state land in this Management Area is fairly concentrated.
- Social – The Chandler Hills MA is a popular area for game hunting, hiking, mushroom hunting and other activities by the surrounding communities of Petoskey, Wolverine, Vanderbilt and Boyne Falls. ORV or snowmobile trails are located on all but one of the state forest compartments in this landscape.
- Economic - The current extent for the Antrim natural gas borders the southern edge of the Chandler Hills landscape primarily east and south of Thumb Lake.

Major Cover Types

- Northern Hardwoods/Upland Hardwoods – Of the approximately 37,000 acres of northern hardwoods in the Chandler Hills MA, most are even-aged second growth and have been thinned at least once. There are only 245 acres classified as uneven-aged. Most of the hardwood is on higher quality sites.

- Aspen - Most aspen occurs on the moraines and ice-contact ridges. The aspen age class is heavily skewed to younger age classes reflecting increased harvest intensity and improved aspen timber markets since the 1970s.
- Red Pine - Of the 6,200 acres of red pine, over half is in the 70–79 year age class, and most has a significant maple understory.
- Mixed Swamp Conifers and Cedar – There are approximately 6,300 acres, most of it in older age classes and inoperable due to poor access.
- Upland Brush/Grass – Upland brush and grass totals approximately 3,300 acres. This 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.

Chandler Hills			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+	
Upland Hardwoods	36,678	55%	51	425	146	17	101	78	288	276	362	45	245	34,644
Aspen	9,227	14%	1,040	1,919	2,216	1,664	702	239	480	626	195	84	0	62
Red Pine	6,267	9%	482	234	66	0	1,491	377	355	3,128	132	2	0	0
Mixed Swamp Conifers	3,320	5%	0	0	18	13	0	0	151	523	1,731	176	652	56
Cedar	2,974	4%	0	0	0	89	0	0	16	598	565	266	1,261	179
Oak	626	1%	0	0	0	0	0	0	117	49	197	0	0	263
Grass	2,699	4%												
Upland Brush	614	1%												
Water	324	0%												
Other Types	4,266	6%												
Total			66,995											

Other Types include: Swamp Hardwoods, Lowland Poplar, Lowland Brush, White Pine, Marsh, Jack Pine, Tamarack, Black Spruce, and White Birch.

Concepts of Management

- Northern Hardwoods/Upland Hardwoods (55% of the MA) – Continue regular selection management of northern hardwoods to develop uneven-aged stand structure. Overall acres of hardwood will increase as red pine stands are allowed to convert back to hardwoods. Beech bark disease may affect future mast availability. As a result, management should favor red oak.
- Aspen (14% of the MA) – Focus management on maintaining the distribution of the 0-59 year age classes. If accessible, harvest the 70 plus age classes. Allow inoperable areas to succeed to more shade tolerant species.
- Red Pine (9% of the MA) – Over the next 10 years and beyond, overall acreage will decrease based on harvest guidance from the Red Pine Management Guidelines and subsequent natural conversion to hardwoods. 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.
- Mixed Swamp Conifers and Cedar (9% of the MA) - Regeneration harvests should be considered if deer browsing can be minimized and wetland soils are not adversely impacted.
- Upland Brush/Grass (5% of the MA) - Current level is meeting economic/social and ecological demands. Some grass areas are actively managed through farming.