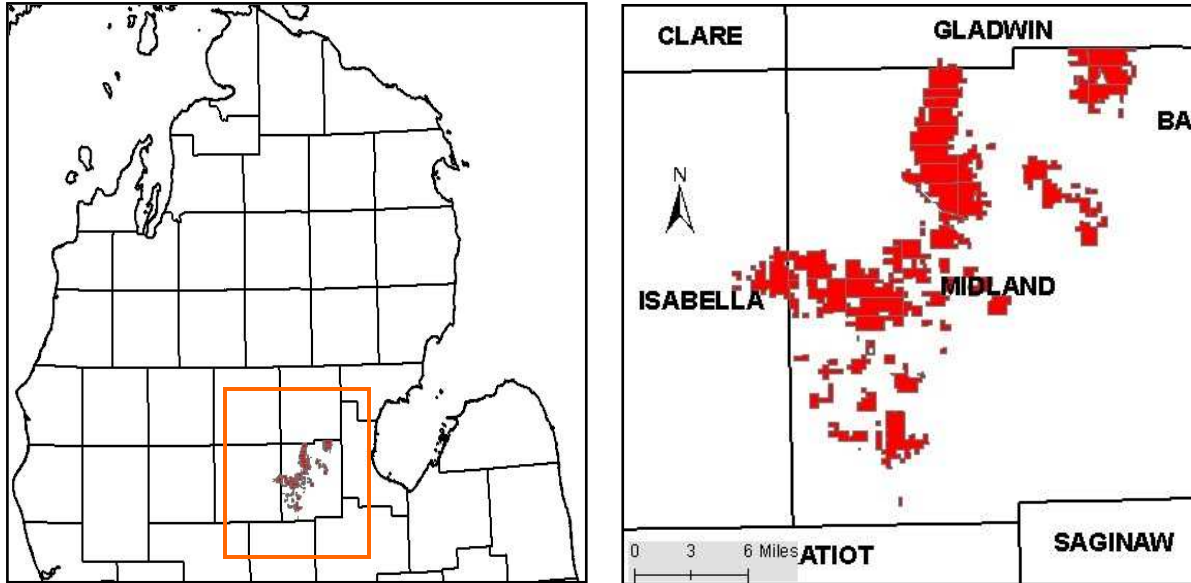# Midland-Isabella Management Area

Attributes

The Midland-Isabella Management Area is located in the Tittabawassee River watershed of the Southern Lower Peninsula in Midland and Isabella counties and has approximately 45,000 acres of scattered State Forest land. The primary attributes which were important in identifying this MA include:

- Ecological Classification - The MA falls within the Saginaw Bay Lake Plain region of the Southern Lower Peninsula Ecoregion as classified by Albert (1994). The Midland-Isabella MA is in a unique ecological transition zone between the southern and northern forest types of Michigan.

- Cover Types - Historically, hemlock, white pine and maple were prominent on the higher ground, while tamarack, black ash, white birch, white pine, and hemlock were on the lower areas. The current vegetation composition is predominantly aspen, swamp hardwoods, oak and lowland brush and relatively inaccessible lowland cover types.

- Landforms - The dominant landform consists of poorly drained flat clay plains with broad sand channels. Soil moisture is significantly affected by small changes in elevation.

- Cultural – This MA is bordered by the cities of Midland to the east and Mt. Pleasant to the west. Most of the private land inter-mixed with the State Forest land is highly developed farmland or residential areas.

- Social and Economic – There is a high level of recreational use by area residents. Illegal ORV use and trash dumping are significant issues.

Major Cover Types

- Aspen - Most of the 20,000 acres of aspen age classes are well balanced, except for the 0-9 age class which has only 1,600 acres. There are only 1,100 acres over age 60. Some of the aspen was classed as another type in the past and there is probably less than inventory records indicate. Some aspen has been difficult to regenerate due to higher water tables after harvest and to browsing by high deer populations.

- Swamp Hardwoods – There are about 10,000 acres of swamp hardwoods and younger age classes are under-represented. Other than a small spike in the 30-39 year age class, most acres are in the 60-90 year age class. Many lowland areas are inoperable due to wetness.

- Oak – There are 4,200 acres of oak including some swamp white oak and the age class is skewed to the 70-89 year age classes. The 80-89 age class spike has been harvested using the shelterwood/seed tree methods and there has been some success in regenerating oak due to the higher water table.

- Lowland Brush – There are almost 4,700 acres of lowland brush.

Midland-Isabella			Age Class (Years)											
Cover Type	Acres	%	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100+	Uneven Aged
Aspen	20,173	45%	1,653	5,484	5,562	4,754	1,254	338	267	614	213	9	0	25
Swamp Hardwoods	10,187	22%	121	314	417	596	345	358	1,165	1,542	1,636	234	49	3,410
Oak	4,216	9%	165	491	226	259	110	59	331	857	971	127	163	457
Lowland Brush	4,693	10%	0	0	5	114	0	0	11	0	0	0	0	0
Marsh	1,513	3%	0	0	0	0	0	0	0	0	0	0	0	0
Water	1,154	3%	0	0	0	0	0	0	0	0	0	0	0	0
Grass	650	1%	0	0	0	0	0	0	0	0	0	0	0	0
Upland Brush	7	0%	0	0	0	0	0	0	0	0	0	0	0	0
Other Types	2,683	6%												

Total   45,276

Other Types include: Bog, Marsh, Upland Mixed Deciduous, Lowland Poplar, Upland Hardwoods, White Pine, Red Pine, Upland Mixed Conifers, White Birch, Hemlock, Sand Dune.

Concepts of Management

- Aspen (45% of the MA) – Aspen acres are expected to decrease (5-10%) due to difficulty in regeneration (change in water table and browsing) and reclassification of types. Seek opportunities to harvest operable younger age classes to help balance the 0-59 year age class distribution and to assure maintenance of the better quality aspen sites. There may be opportunities to plant mesic conifers in poorly regenerated areas — white pine, red pine and white spruce. Under-plant hemlock on steep slopes that are not operable.

- Swamp Hardwoods (22% of the MA) - The acreage is expected to increase in large part due to re-evaluation of some mistyped aspen stands. Regeneration should be considered if harvests can be done in a manner that will not adversely impact wetland soils and if deer browsing can be minimized.

- Lowland Brush (10% of the MA) – To improve productivity, under-plant conifer species (such as white pine and hemlock) in these areas on an experimental basis.

- Oak (9% of the MA) – Maintain oak at current levels and balance the distribution of the 0-89 year age classes. Explore strategies for oak regeneration and continue to experiment with treatments including prescribed fire to achieve regeneration goals. Where present, retain advanced regeneration of red and white pine. There is also a potential for under-planting of red and white pine to promote mixed oak-pine stands.