

## MDNR Inventory Systems

**OI (Operations Inventory)** – The DNR's inventory system developed in the 1970s that classifies stands based on vegetation as well as management objectives. It provides basic information for day-to-day resource management operations. The DNR is in the process of converting to IFMAP, a new inventory system.

**IFMAP (Integrated Forest Monitoring, Assessment and Prescription)** – A GIS-based inventory system that differentiates the forest according to tree canopy composition and non-forested areas by plant composition. Stand lines are drawn based upon vegetative composition, and not based upon management objectives. Management boundaries (proposed treatments, Special Conservation Areas, etc) are delineated separate from the vegetative inventory.

## Glossary of Forestry Terms

**Acre** – A measure of land that covers 43,560 square feet (about 209 feet X 209 feet). There are 640 acres in a square mile.

**Basal Area (BA)** – The total area on one acre in square feet of the cross section of all the growing stock trees at DBH. Because of its direct correlation with cubic feet volume, BA per acre provides a logical expression of stand density and is simple to measure.

**Board Foot** – A standard measurement term for lumber or timber equal to the amount of wood contained in a board 1 inch thick, 12 inches long, and 12 inches wide.

**Cord** – A standard cord of wood measures 4 X 4 X 8 feet and contains 128 cubic feet of volume that includes wood, bark and voids. There is usually about 79 cubic feet of wood in a cord. Compare Firewood or Face Cord: A pile of wood of any firewood length that is 4 high X 8 feet long.

**Cultural Need and Cultural Method** – A type of treatment to a stand or area such as planting, opening maintenance, seeding, weeding, thinning or pruning. Method may include the use of hand planting, aerial or ground application, equipment, prescribed burning, etc.

**DBH** – Diameter at breast height (4½ feet) which is the standard height for measuring tree diameter.

**GIS** (Geographic Information System) - GIS is a collection of computer hardware, software, and geographic data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

**Growing Stock Tree** – Any live tree of commercial value that has at least one eight foot stick of wood that is at least 4 inches diameter inside the bark at its small end.

**Harvest Priority** – Ranking of priority of harvest relative to other stands prescribed for harvest in the same compartment or area.

**Management Objective** – The cover type that is expected as a result of a prescribed treatment.

**Management and Reproduction Status** - Indicates whether the regeneration is already adequate, or will be upon harvesting the stand, or if regeneration will be necessary after harvest.

#### **Method of Cut (MOC) or Treatment Method**

1. Final Harvest/Clearcut – A stand replacement cut where all or most of the trees are removed.
2. Seed Tree – A stand replacement cut where most trees are removed from a stand, leaving a small number of designated seed trees.
3. Shelterwood-Seed Tree – A stand replacement cut designed to achieve regeneration while providing shelter to the trees seeding in.
4. Thinning – A commercial intermediate cut intended to enhance the growth and quality of the remaining trees.
5. Removal – Removal of trees from the overstory of a stand so as to release the understory stand that is less than 20 years of age.
6. Delayed Removal - Removal of trees from the overstory of a stand so as to release the understory stand that are greater than 20 years of age.
7. Shelterwood Prep – A cut designed to develop tree crowns in the remainder of the stand in preparation for another cut to be made in about ten years that will result in regeneration.
8. Selection – A cut in an uneven-aged stand that is designed to remove mature and undesirable trees with regeneration occurring in the openings that result.

9. Improvement – A cut in an even-aged stand or two-storied stand that is to be converted to a mixed age composition.

Note: Clearcut, Seed Tree, and Shelterwood (seed) may also have comments or wording that includes the phrase “with Reserves”. This means that these regeneration harvests will retain representative components of the original stand, consisting of un-harvested islands or individual trees.

**Poletimber Tree** – A live tree of commercial species at least 5.0 inches DBH, but smaller than sawtimber size. Harvested poletimber is sometimes referred to as cordwood.

**Sapling Tree** – A live tree usually defined as being between 2 and 4 inches DBH.

**Seedling Tree** – A live tree usually less than 2 inches DBH that is expected to survive. Only softwood seedlings more than 6 inches tall and hardwood seedlings more than 12 inches tall are counted.

**Sawtimber Tree** – A live tree of commercial species usually 10 to 12 inches in diameter or larger.

**Site Condition Factor** (formerly referred to as limiting factor) - These are restraints on the harvest of an area that appears to be (according to age or density) ready for harvest. Site condition factors can be related to law (such as the Natural Rivers Act), access (such as "too wet", "too steep", or "bridge needed"), special use or designation (such as endangered species, designated natural areas, and military use) or other restraints.

**Site Index** – A numerical indicator of site quality based on tree height at a specified age used as coordinates for interpolating site index from a specially prepared set of graphed curves for a given species of tree.

**Special Conservation Areas (SCAs)** Special Conservation Areas are areas of state forest land that have had one or more conservation objectives, interests, or elements identified.

**Timber Stand Improvement (TSI)** – A thinning of northern hardwoods to improve the quality and increase the growth of the remaining trees.