



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61047

Entry Year 2020

Acreage: 3,145

County Grand Traverse

Management Area: Boardman Plains

Revision Date: 2018-04-24

Stand Examiner: Pat Ruppen

Legal Description:

T26N, R9W Sections 3-10

Identified Planning Goals:

This compartment is part of the Boardman Plains Management Area (MA). Vegetation management in this (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Boardman River (a designated natural river) and the Sand Lakes Quiet area (a designated high conservation value area), threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management objectives for this 10-year planning period include improving the age-class structure of aspen; increasing regeneration of oak; working toward balancing the red pine age-class structure; continuing emphasis on managing the northern hardwood resource for stand quality, age, and species diversity; wildlife values; and continued production of wood products. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunity. Expected trends within this 10-year planning period are: increased recreational pressure, especially on the Muncie Lakes pathway, North Country and other established trails; increased oil and gas development; an increased wild-land/urban interface; a need to restore oak/pine barrens communities; invasive plant control; and the conversion of poor oaks sites to mixed pine/oak sites. This compartment is contained within Sub-Section VII2.2 Grayling Outwash Plain. LTA 5111. This land type association is characterized by a combination of steep ice contact ridges associated with extensive glacial outwash plain. Soils are generally extensively drained and wildfires were common often spreading for miles. Pre-settlement vegetation varied for this type but generally xeric (dry site) conifer forests and Pine Barrens were found on the most fire prone sites. Forests dominated by white pine mixed with other conifers and oak were found on the less fire prone sites while the least fire prone sites had forests with beech and sugar maple components. Due to wildfire suppression and extensive coniferous plantations, the extent of natural xeric pine associations, pine barrens, and dry prairie openings has been greatly reduced. An attempt should be made through vegetative management and the use of prescribed fire to reset the clock on some of these stands and to create some new pine, oak and aspen mixes. Red pine has not been regenerating naturally in many of these stands therefore it is recommended that red pine seedlings be inter-planted in some treated stands to retain this component of the xeric pine mix. Stands with high components of early succession species, (particularly jack pine and aspen), are aging and declining. A focus should be on regenerating these stands or salvaging these stands components. Browsing and poor quality stump sprouts have been a problem in the past when regenerating oak stands. Many of these low quality oak stands are remnants on soils and topography inclined to succession back to natural pine stands with a high component of white pine. A focus should be on encouraging succession back to natural pine stands while maintaining a considerable component of mixed oak in the canopy for mast production. Some oak dominated stands are recommended for harvest in this compartment. Much of the oak in this MA is around 100 years old and declining in vigor. A number of stands are recommended for harvest in this entry year of entry. Some of these stands have significant advanced natural regeneration in the understory of oak or white pine. These stands will be harvested with the hope for good natural regeneration. Other stands will be harvested and red pine will be planted after harvest. Red pine does not regenerate well without disturbance such as fire. This will help to maintain this species as a component of these stands along with natural regeneration that may occur. Two pine dominated stands are recommended for harvest an

Soil and topography:

Rubicon sand. Mixed topography with broad flats, rolling terrain and steep slopes up to 50% adjacent to the Boardman River valley which cuts diagonally through this compartment. Some pothole topography occurring mainly in sections 5 and 7.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

Blocks of ownership are mostly state. Some heavy residential development to the north and west.

Unique Natural Features:

The north and south branches of the Boardman River meet here to form its main branch. The Boardman River watershed is a state designated wild and scenic river. This compartment winters large numbers of Whitetail Deer in cover along the

Boardman River. Stand 198 contains a small portion of an Ecological Reference Area- Oak-Pine Barrens. Stand 129 is a portion of an Ecological Reference Area- Rich Conifer Swamp. Stand 138 is being nominated as an oak-pine barrens Special Conservation Area.

Archeological, Historical, and Cultural Features:

No known occurrences.

Special Management Designations or Considerations:

Boardman River Watershed. Ecological Reference areas—Stand 175 Oak-Pine Barrens and Stand 129—Rich Conifer Swamp.

Watershed and Fisheries Considerations:

This compartment contains a variety of unique and critical watershed components as described in the Unique, Natural Features section. Therefore, please conform to all the BMPs listed in the Water Quality Management Practices on Forest Land (2009) handbook and the Natural Rivers vegetative buffers. In addition, do not harvest any trees in riparian areas that have the potential to provide woody debris or shade to the streams or lakes within this compartment. The vegetation buffers should compliment the natural contours and vegetation components of the Boardman River valley.

Wildlife Habitat Considerations:

Nearly all of compartment 47 consists of dry sandy outwash plains. The sandy soil found here was often the setting for large wildfires. These fires sustained a variety of fire driven communities. Present habitat types include mixed stands of pine/oak/aspens/red maple of various ages interspersed with openings, upland brush, natural pine, and several oak communities. The regeneration of oak and other mast producing species is essential to wildlife species living in this landscape. Timber harvests should be designed to mimic wildfires of various intensities to perpetuate a shifting mosaic of successional stages and age classes of pine-oak-aspens forest and grass-shrub openings. Timber prescriptions on this landscape should utilize pine, oak, fruiting shrubs, and other species as residuals. The creation of dead and down logs should also be included in harvest operations. Standing dead timber is usually left during harvest operations unless deemed a safety hazard.

Openings, in the absence of fire, should be maintained via hand felling, brush hogging, hydro-axe, or via commercial harvests in order to set back woody encroachment, leaving scattered mast producing shrubs/trees. By using and/or mimicking fire on the landscape the goal is to perpetuate a mosaic of natural pine, oak, aspen, and non-forested habitats like Oak/Pine Barrens or savannas. Some species found in these early to mid-successional communities include: white-tailed deer, ruffed grouse, eastern bluebird, smooth green snake, wild turkey, long-tailed weasel, and red-tailed hawk. Also, many endangered, threatened, or special concern species can be found in these fire maintained ecosystems. The Boardman River runs through a part of this sandy outwash plain. Narrow strips of lowland conifers and lowland brush are found along these bottom lands and create a valuable riparian corridor through an otherwise dry landscape.

Compartment 47 falls within the Boardman Plains Management Area (MA) of the Regional State Forest Management Plan. Featured wildlife species for this MA include bear, pileated woodpecker, ruffed grouse, turkey, and deer. Based on the natural disturbance history of the land type associations within the Boardman Plains MA, the MA plan calls for managing the amount of open/semi-open lands at or above the current level to provide habitat for species which use openings.

Mineral Resource and Development Concerns and/or Restrictions

Sections 3-10, T26N-R9W, Grand Traverse County

Sand/gravel pits are not located in the area, but there is some sand & gravel potential within the compartment. The compartment is located in the prolific Niagaran reef trend. A number of dry test holes have been previously drilled within and around the compartment. There are currently two active wells within the compartment, but most of the state minerals are currently leased. There may be potential for additional reef reservoirs beneath the compartment. There is no metallic mineral potential in this part of the state.

Vehicle Access:

Access is fairly good via Supply, Muncie Lakes, Brown Bridge, and Rennie Lake Roads. A network of two track access state forest land from these county roads.

Survey Needs:

Apparent driveway and landscaping trespass in stand 162 along Rennie View Road. Survey assistance may be needed to reconcile.

Recreational Facilities and Opportunities:

This compartment has numerous designated recreation opportunities for motorized and non-motorized pursuits. The west half of the compartment includes portions of the North Country National Scenic Hiking trail, which is also part of the Iron Belle Hiking Route, Muncie Lake Pathway, Shore to Shore Michigan Trail Riders Equestrian Trail, and the Boardman Valley Snowmobile trail #55. The east half of the compartment contains Grand Traverse Motorcycle Trail in Sections 9 and 10. The proximity to populated areas and private resorts increase the dispersed recreation activities from fishing and

hunting interests. Timber and wildlife management will occur to the point that it will not interfere with recreational uses and not negatively the effect visual aesthetics.

Fire Protection:

DNR Fire Protection is from the Traverse City Field Office. With the exception of most of section 6, this compartment falls in Zone 6. On a High Fire Day or above, additional DNR equipment is dispatched from Kalkaska, and Manton to the fire scene, and equipment from Evart, Platte River, and Grayling shift toward the area. Access is acceptable, although the Boardman River can cause some areas to be difficult to quickly access. Urban interface is not too much of a concern. Recreational use by hikers, mountain bikers, dispersed campers etc., could be a source of human caused fires. VFD Fire protection is by the East Bay Twp., and the Fife Lake Twp. Fire Dept.

Additional Compartment Information:

Oak wilt or decline found in stand 3.

The following reports from the Inventory are attached:

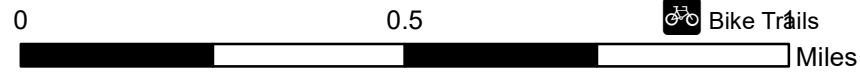
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

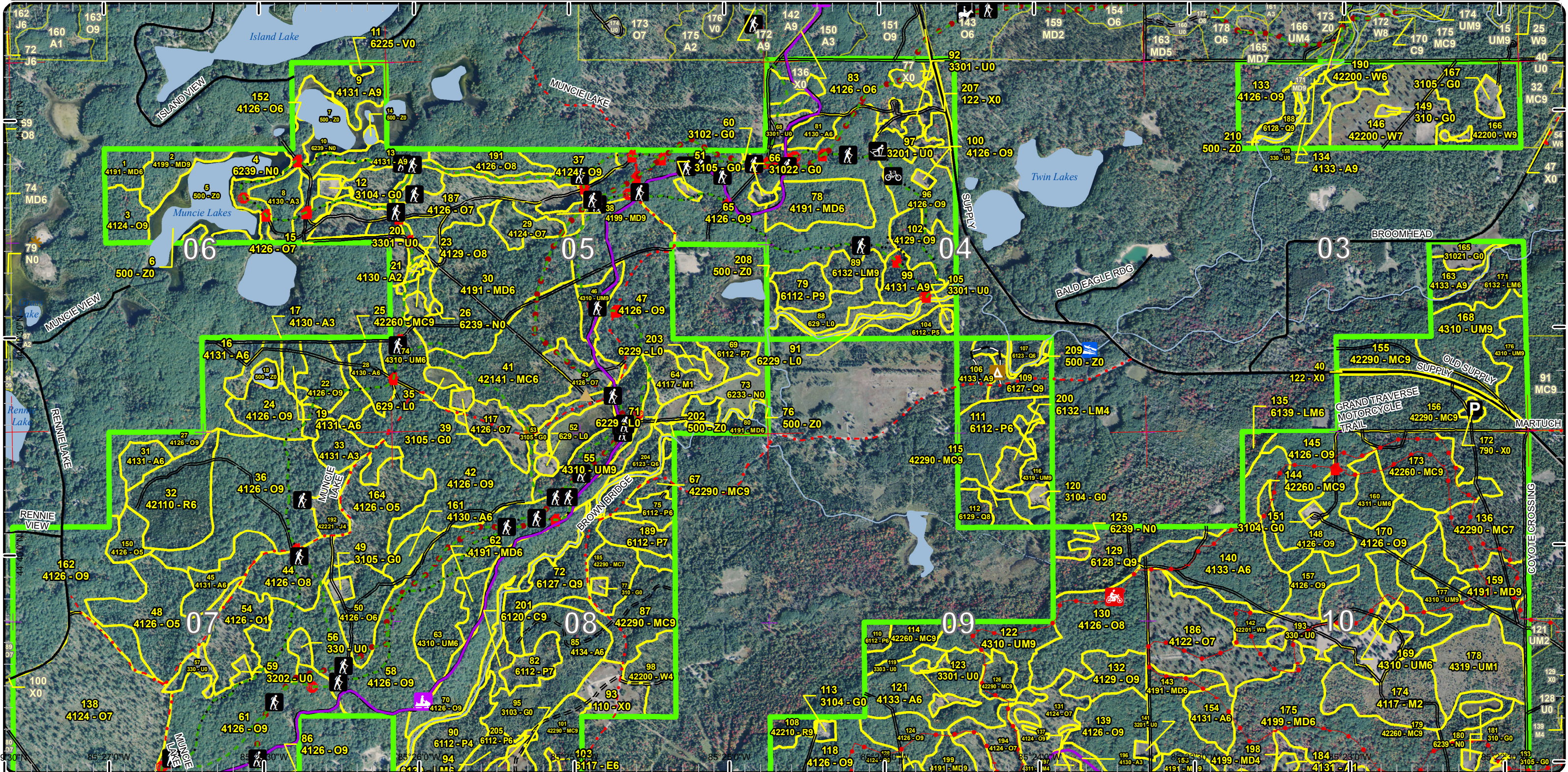
Stand Boundary Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review



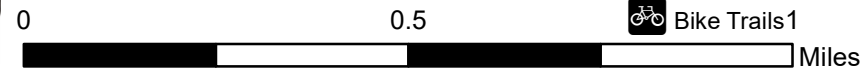
- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Hiking Trails
- Bike Trails
- Horse Trails
- Ski Trails
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Berms
- Boating Access Site
- Campground
- Parking Lot
- Sign
- Structures
- Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Stand Boundaries

- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparsely Vegetated



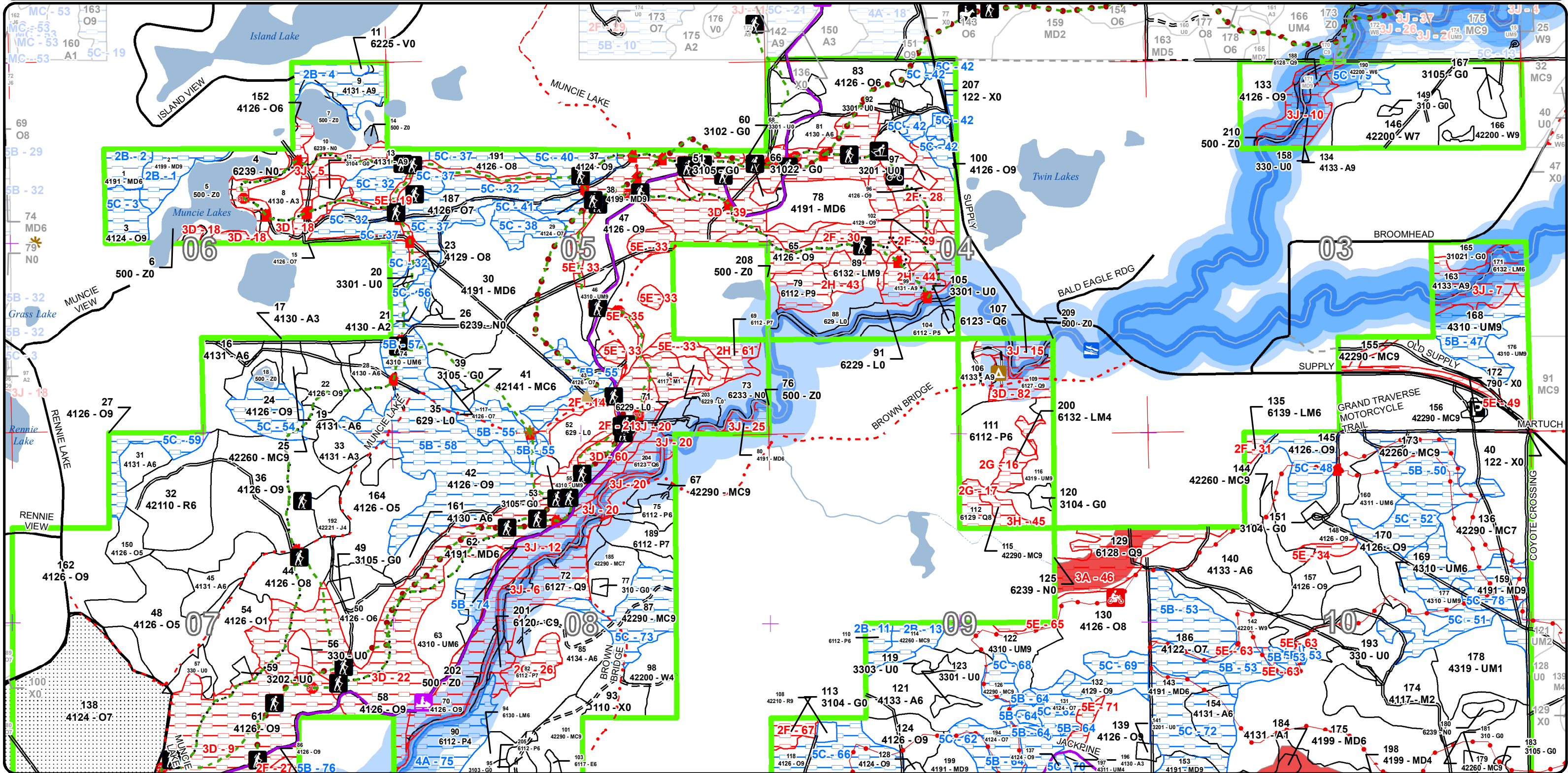
Special Conservation Areas & Site Conditions Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review



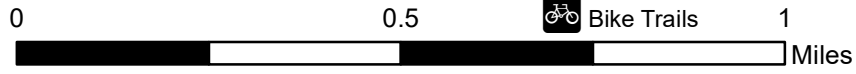
- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Hiking Trails
- Bike Trails1
- Horse Trails
- Ski Trails
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Berms
- Boating Access Site
- Campground
- Parking Lot
- Sign
- Structures
- Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable

- 4A: No Markets Available for these Forest Products
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Conservation Values incompatible with harvest at this time
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer

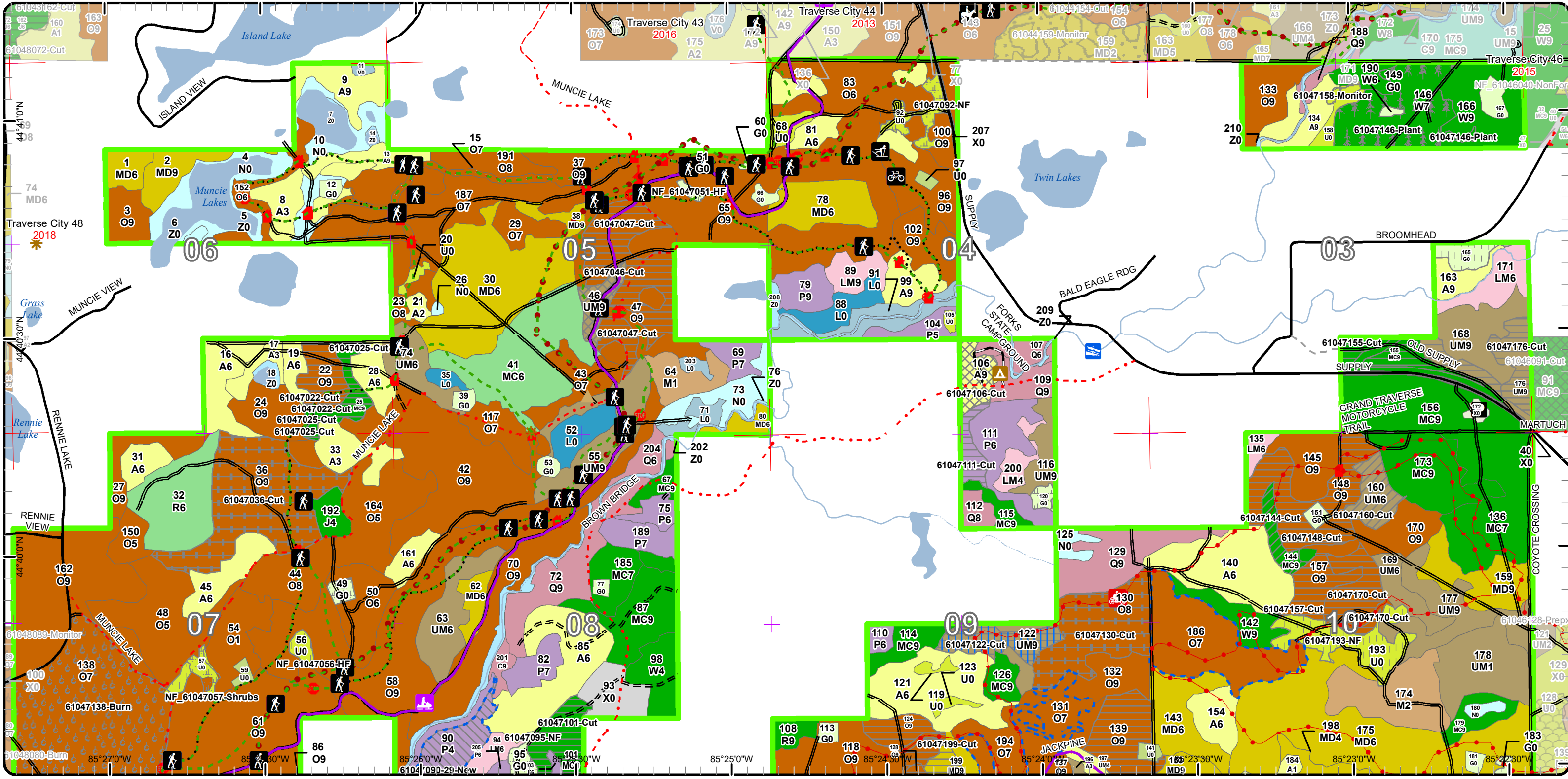


Cover Type & Treatments Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review

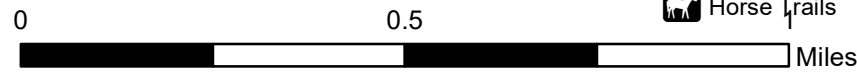


- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- == DNR - Forest Access Route
- Federal / State / County - Paved Road
- - Federal / State - Dirt / Gravel Road
- . - County - Gravel Road
- - - County - Dirt Road (Seasonal)
- - - Private - Dirt / Gravel Road
- 👤 Hiking Trails
- 🚲 Bike Trails
- 🐎 Horse Trails
- 🏂 Ski Trails
- 🏍️ Motorcycle Trails (DNR License)
- 🚙 Snowmobile Trails
- Designated Hiking Trails
- - Designated Bicycle Trails
- • Designated Equestrian Trails
- Designated Ski Trails
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Berms
- 🚤 Boating Access Site
- 🏠 Campground
- P Parking Lot
- 🛑 Sign
- 🏠 Structures
- 🌟 Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- 🟩 Compartment Boundary
- 🟦 Treatments with Site Conditions
- 🏠 Other Harvest - See Comments
- 🏠 Other Treatment - See Comments
- 🌳 Selection (Group, Single Tree)
- 🌳 Planting (tree species)
- 🏠 Clearcut (w/Reserves)
- 🏠 Harvest, Overstory Removal
- 🔥 Prescribed Burn
- 🌳 Seed Tree (w/Reserves)
- 🌳 Thinning (Crown, Low, Systematic)
- 🏠 Regeneration Survey
- 🏠 Opening Maintenance
- 🌳 411 - Northern Hardwood
- 🌳 412 - Oak Types
- 🌳 413 - Aspen
- 🌳 419 - Mixed Upland Deciduous
- 🌳 421 - Planted Pines
- 🌳 422 - Natural Pines
- 🌳 430 - Upland Mixed Forest
- 🌳 611 - Lowland Deciduous Forest
- 🌳 612 - Lowland Coniferous Forest
- 🌳 613 - Lowland Mixed Forest
- 🏠 110 - Low Intensity Urban
- 🏠 122 - Roads/Parking Lot
- 🌳 310 - Herbaceous Openland
- 🌳 320 - Upland Shrub
- 🌳 330 - Low Density Trees
- 💧 500 - Water
- 🌳 622 - Lowland Shrub
- 🌳 623 - Emergent Wetland
- 🌳 629 - Mixed non-forested wetland
- 🏠 790 - Other Bare/Sparsely Vegetated
- 🌳 Lakes



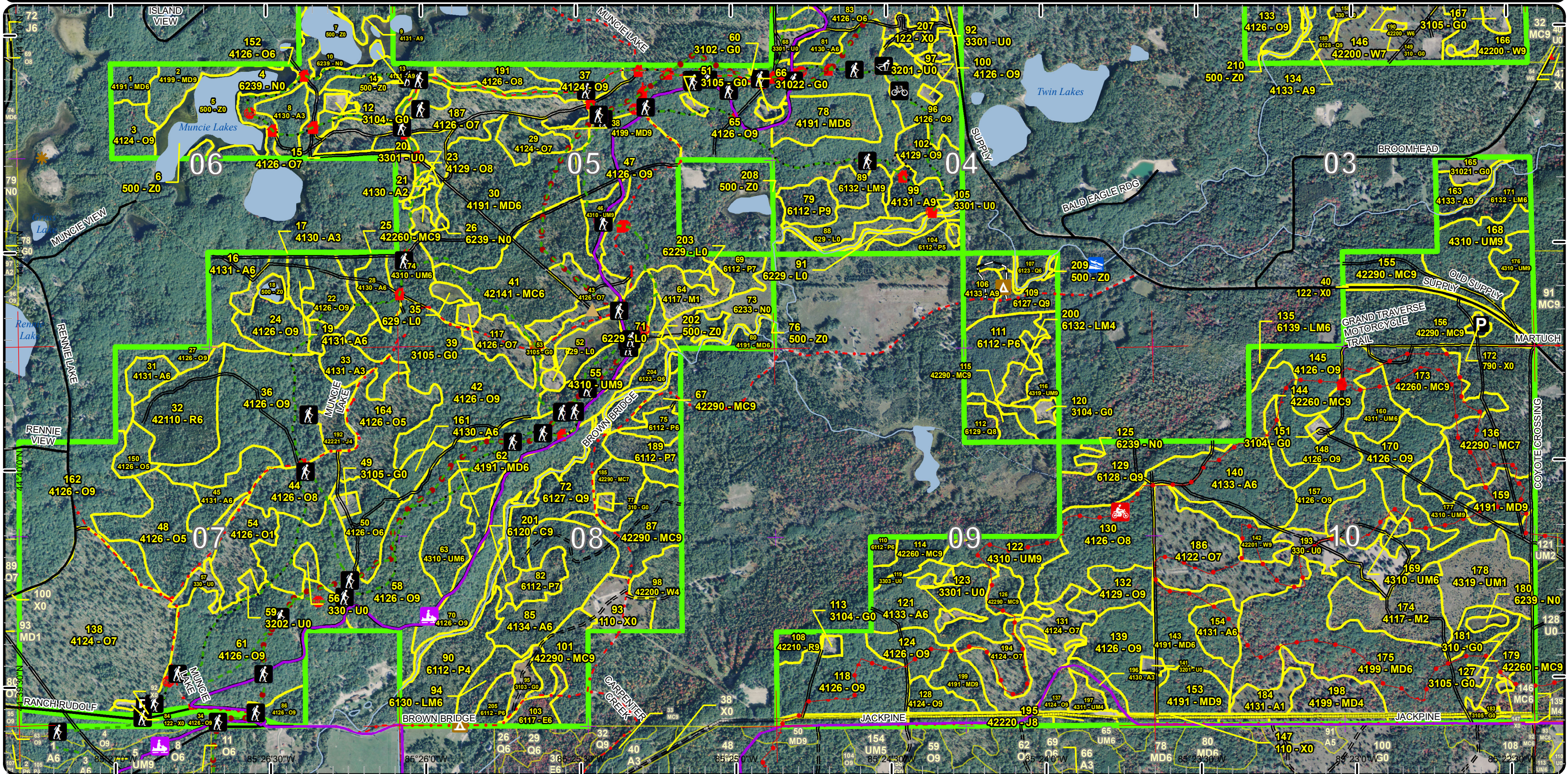
Stand Boundary Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review



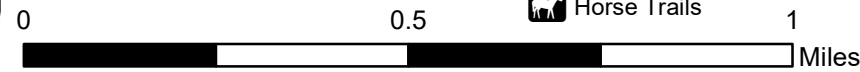
- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Hiking Trails
- Bike Trails
- Horse Trails
- Ski Trails
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- Designated Snowmobile Trails
- Berms
- Boating Access Site
- Campground
- Parking Lot
- Sign
- Structures
- Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Pipeline
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen

- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparingly Vegetated



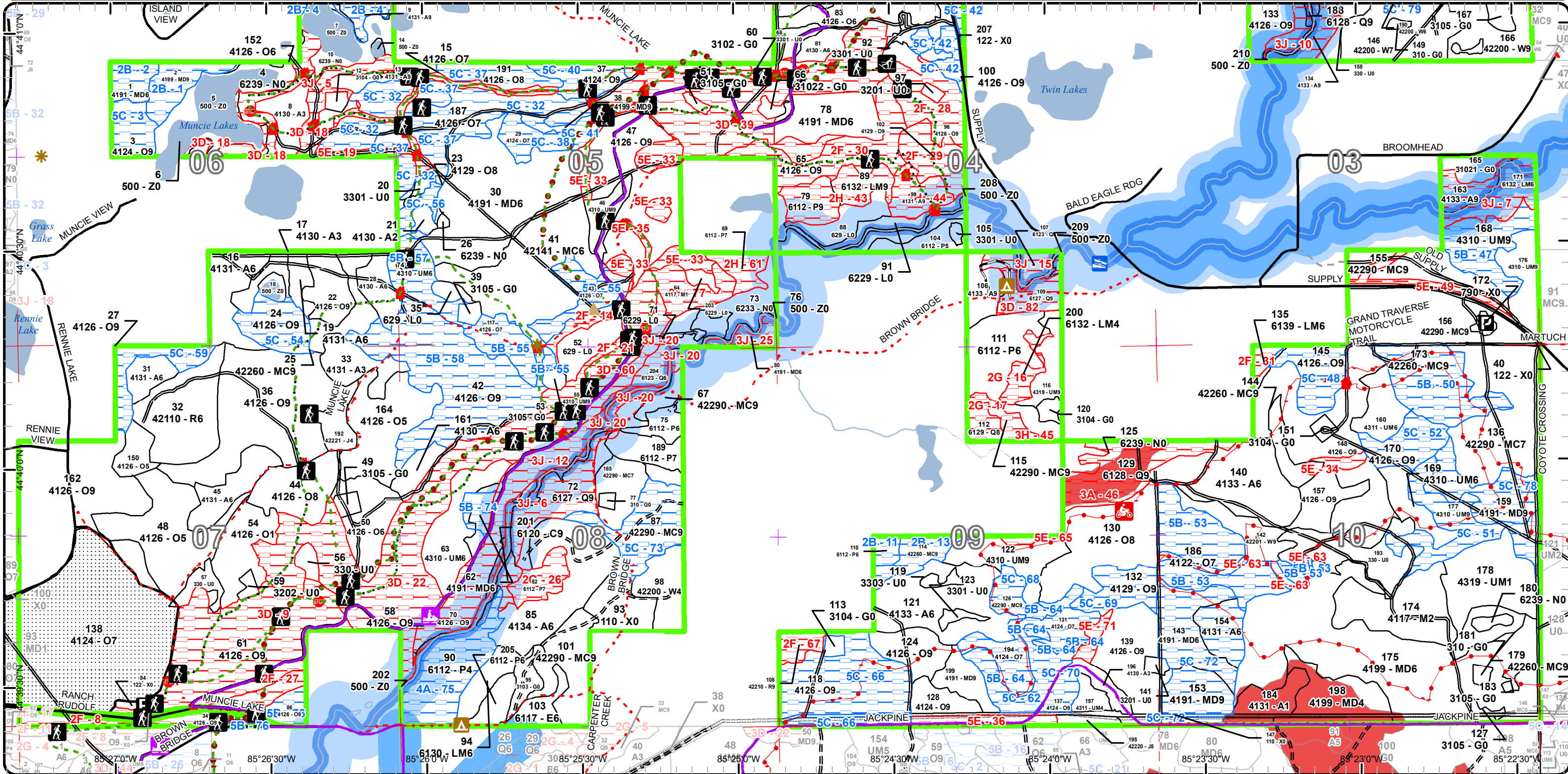
Special Conservation Areas & Site Conditions Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review



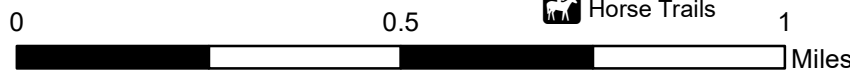
- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- H Hiking Trails
- B Bike Trails
- H Horse Trails
- S Ski Trails
- M Motorcycle Trails (DNR License)
- S Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Berms
- Boating Access Site
- Campground
- P Parking Lot
- S Sign
- R Structures
- T Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Pipeline
- Compartment Boundary
- Available w/ Constraints
- Unavailable

- 4A: No Markets Available for these Forest Products
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Conservation Values incompatible with harvest at this time
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer

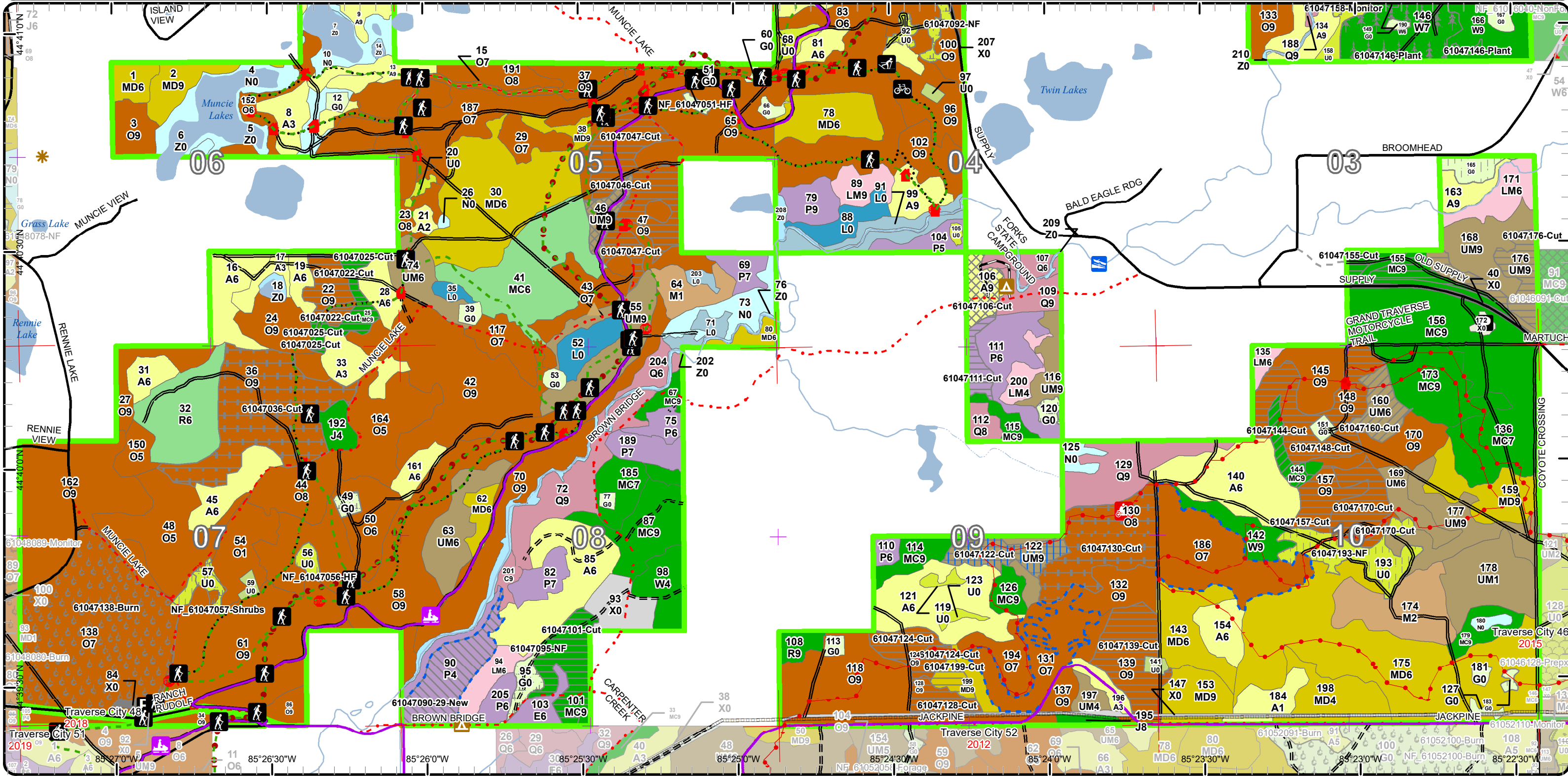


Cover Type & Treatments Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review

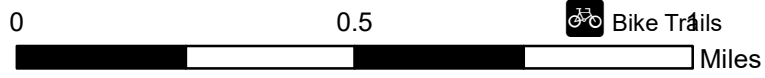


- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Hiking Trails
- Bike Trails
- Horse Trails
- Ski Trails
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Berms
- Boating Access Site
- Campground
- Parking Lot
- Sign
- Structures
- Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Pipeline
- Compartment Boundary
- Treatments with Site Conditions
- Other Harvest - See Comments
- Other Treatment - See Comments
- Selection (Group, Single Tree)
- Planting (tree species)
- Clearcut (w/Reserves)
- Harvest, Overstory Removal
- Prescribed Burn
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Opening Maintenance
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparsely Vegetated
- Lakes

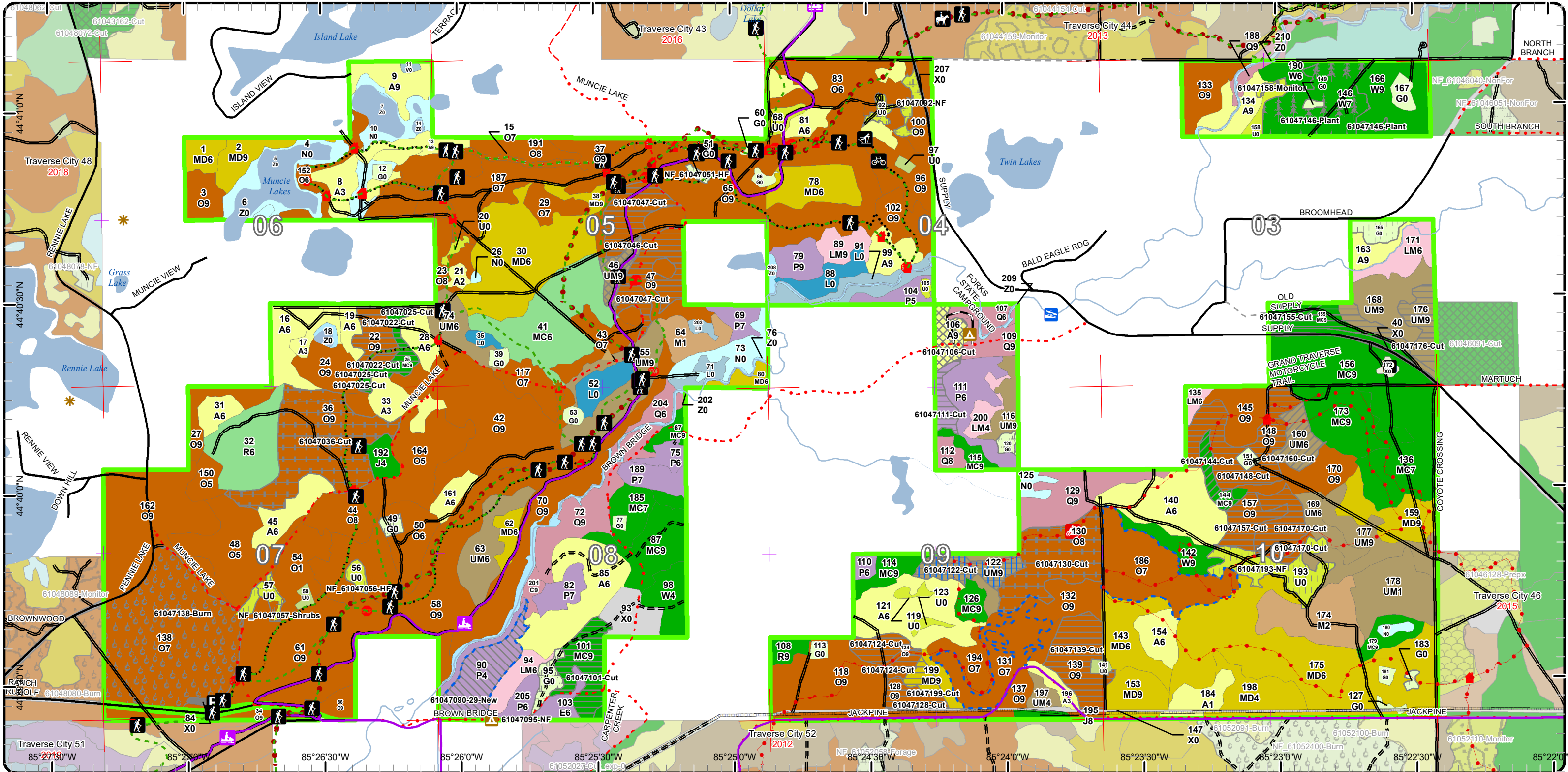


Cover Type & Treatments Map

Compartment: 47
 T26N-R09W Sec. 03-10
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Boardman Plains
 YOE: 2020
 Acres: 3,145 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 10/11/2018
 Map Phase: Pre-Review



- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- == DNR - Forest Access Route
- Federal / State / County - Paved Road
- - - Federal / State - Dirt / Gravel Road
- . - . County - Gravel Road
- - - County - Dirt Road (Seasonal)
- - - Private - Dirt / Gravel Road
- Hiking Trails
- Bike Trails
- Horse Trails
- Ski Trails
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- ORV License & Trail Permit
- Berms
- Boating Access Site
- Campground
- Parking Lot
- Sign
- Structures
- Trailhead
- Intermittent Pond
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Pipeline
- Compartment Boundary
- Treatments with Site Conditions
- Other Harvest - See Comments
- Other Treatment - See Comments
- Selection (Group, Single Tree)
- Planting (tree species)
- Clearcut (w/Reserves)
- Harvest, Overstory Removal
- Prescribed Burn
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- Opening Maintenance
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparsely Vegetated



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	12	0	20	176	16	10	11	0	52	0	0	0	0	0	0	0	0	297
Bare/Sparsely Vegetated	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
Herbaceous Openland	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Jack Pine	0	0	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	10
Low-Density Trees	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Lowland Aspen/Balsam Poplar	0	0	6	0	50	0	0	28	16	10	0	0	0	0	0	0	0	0	110
Lowland Conifers	0	0	0	0	0	0	7	0	12	5	0	3	21	0	9	26	0	0	82
Lowland Deciduous	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Lowland Mixed Forest	0	0	0	0	0	9	0	0	8	0	10	0	0	0	13	0	0	0	40
Lowland Shrub	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Marsh	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Mixed Upland Deciduous	0	0	0	0	202	0	0	12	15	12	6	34	21	0	0	0	0	0	302
Natural Mixed Pines	0	0	0	0	0	11	7	0	103	20	35	0	25	0	5	0	0	23	229
Northern Hardwood	0	0	11	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Oak	0	0	0	47	89	0	0	0	40	259	651	204	34	0	0	0	0	54	1377
Planted Mixed Pines	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Red Pine	0	0	0	0	30	0	0	0	0	0	0	5	0	0	0	0	0	0	35
Upland Mixed Forest	0	27	0	0	33	0	11	0	0	86	27	18	0	0	9	0	0	0	209
Upland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Urban	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Water	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
White Pine	0	0	0	0	14	0	0	25	11	35	0	6	0	0	0	0	0	0	90
Total	270	39	17	148	594	36	35	67	169	263	343	684	292	55	36	26	0	77	3146



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2020

Acres of Harvest

Compartment 47
Total Compartment Acres: 3,145

Commercial Harvest - 342
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 23

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	0	9	0	0	0	0	0	0	0	9
Lowland Aspen/Balsam Poplar	6	0	0	0	0	0	0	23	0	29
Mixed Upland Deciduous	5	0	0	0	0	0	0	0	0	5
Natural Mixed Pines	45	0	0	0	0	6	0	0	0	51
Oak	138	0	0	0	0	0	91	0	0	229
Upland Mixed Forest	12	8	0	13	0	11	0	0	0	43
Total	204	16	0	13	0	17	91	0	23	365

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	365	0	35	0	93	65	1	0	53	612
Next Step	0	294	166	0	56	166	481	0	0	1164
Total	365	294	201	0	149	232	482	0	53	1776



S
t
a
n
d

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
22 61047022-Cut	10.5	4126 - White, Black, N. Pin Oak	Sawtimber Well	105	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Cut all stems to 2" dbh. Retention along ski trail. Trench and plant red pine after harvest. Treat with stand 25. Chip tops if possible to prepare site for planting. Keep stumps 6" or less.

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant

Acceptable mixed oak and pine
Regen:

Other This stand currently is composed of low quality oak with some pine, aspen and red maple. One of the goals of the ten year plan for this Management Area (MA) is to restart lower quality oak stand and aim for a pine/oak mix. This area historically had pine /oak mixes that were replaced with lower quality oak after the timbering and fires early in the 1900's. This site has good potential for quality pine. Site will be planted with red pine after harvest. Expect new stand to form with the planted red pine along with natural regeneration of oak, white pine and jack pine. Red maple and aspen may also sprout and may be controlled with herbicide in the future to release the pine and oak.

Proposed Start Date: 10/1 /2019

25 61047025-Cut	8.9	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	70	51-80	Harvest	Clearcut with Retention	4310 - Pine, Oak Mix	Even-Aged	Approved Proposal
-----------------	-----	---------------------------------------	----------------	----	-------	---------	-------------------------	----------------------	-----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Harvest to 2" dbh. Chip tops if possible. Keep stumps under 6" to prep site for planting. Trench and plant red pine after harvest.

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant

Acceptable mixed pine and oak.
Regen:

Other This small stand has declining jack pine that is dying and falling out of stand. Stand also has some oak, red pine, white pine and red maple. This harvest will salvage the remaining jack pine and re-start some oak from stump sprouts. The site will be planted with red pine after harvest to get this species back in the stand. Oak, jack pine, and white pine are also expected to regenerate naturally. Red pine does not generally regenerate naturally as it has unpredictable seed years and needs mineral soil for seedlings to germinate. This condition would have been found following wildfires but do to fire suppression this is not the case in modern times. Pine should grow well on this site and would have been historically found in this area.

Proposed Start Date: 10/1 /2019

36 61047036-Cut	55.8	4126 - White, Black, N. Pin Oak	Sawtimber Well	110	51-80	Harvest	Overstory Removal	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
-----------------	------	---------------------------------	----------------	-----	-------	---------	-------------------	----------------------------	----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Remove most over story to release advanced oak under story. Retain most red and white pine and some well formed oak and red maple for mast and seed source (10-20 ba) . Retain more trees along trail corridor. It would be desirable to follow this harvest with a prescribed burn designed to re-sprout oak seedling layer.

Next Step Burn, Understory

Acceptable oak, aspen, mixed pine, red maple.
Regen:

Other This Management Area (MA) has a goal to re-start 272 acres of oak this inventory cycle. Most of the oak in this MA is in the 90-110 yr age and is declining in vigor and health. Harvesting some of these stands should start new oak stand both through stump sprouting and release of seedlings already started in the understory. This oak stand has been thinned in the past. An oak understory layer has formed of seedlings and saplings. Much of this understory has been browsed badly. Removing most of the over story would release this oak understory. A prescribed burn to re-sprout the oak seedling would be beneficial to establishing a new oak stand. Oak seedlings have usually been browsed for many years by deer and have little chance of growing out of it. A prescribed fire can kill the above ground portion of the seedling and cause the root to produce a new rapidly growing sprout. This is a good strategy in some cases to create new vigorous oak stands which are badly needed in this MA

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
46	61047046-Cut	7.5	4310 - Pine, Oak Mix	Sawtimber Well	80	81-110	Harvest	Group Selection	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Remove remaining merchantable jack pine and poorly formed oak and red maple. Reduce canopy cover to 25-50% to release oak understory.
Specs: Consider ski trail and snowmobile trail. Desirable to get jp off trail edge but keep remaining well formed trees.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable mixed oak, mixed pine, red maple, aspen
Regen:

Other Jack pine in this stand is declining and falling out. An oak understory has formed under declining jack pine. Salvage remaining jack pine and
Comment: poorly formed oak as well as most red maple and any aspen if found. Retain most white pine and red pine for seed source. This should release oak understory forming a new mixed stand with oak, jack pine, red maple and some white and red pine. Keep cover along trails in stand but attempt to get jp off trail edges as it is dying and falling on trail and causing maintenance issues.

Proposed Start Date: 10/1 /2019

47	61047047-Cut	38.6	4126 - White, Black, N. Pin Oak	Sawtimber Well	98	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Approved Proposal
----	--------------	------	---------------------------------	----------------	----	-------	---------	-------------------------	----------------------------	-----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Retention strip will be kept along ski trail. Harvest all stems to 2"dbh excluding long term retention areas. Chip harvest if possible to prepare site
Specs: for planting. Follow harvest with planting of red pine. Expect new stand to form with planted red pine and natural regeneration of oak, white pine, jack pine,

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial
Treatments: Regen(3yr)

Acceptable oak, red pine, white pine, jack pine.
Regen:

Other This stand currently has lower quality mature oak in the canopy with some pine, aspen and red maple mixed in. One of the planning goals for
Comment: this management area is conversion of poor oak sites to mixed pine/oak sites. This treatment is expected to accomplish this goal. Areas of this stand will likely regenerate to pockets of oak as seedling are already found in understory and will be released by harvest. Trenching to prepare for red pine planting seems to stimulate oak sprouting. By planting red pine into this site, areas that do not regenerate well to oak will be filled in with planted red pine. Natural white pine and jack pine will likely also form in stand. Red maple and aspen may need to be controlled in this stand if necessary to allow oak and pine to develop. Ski trail will have no cut retention strip along trail corridor. Only one side of trail will be harvested over most of it. Keep some retention along the snowmobile trail. .

Proposed Start Date: 10/1 /2019

90	61047090-29- New	22.8	6112 - Lowland Aspen	Poetimber Poor	60	1-50	Harvest	Other - Specify	6112 - Lowland Aspen	Even-Aged	Approved Proposal
----	---------------------	------	----------------------	----------------	----	------	---------	-----------------	----------------------	-----------	-------------------

Habitat Cut: Yes

Site Condition: No Markets

Prescription Potential winter habitat cut in part of the stand. Hand fell some of the deciduous component (ash, aspen, maple, tag alder, etc) to produce
Specs: horizontal cover in the form of coarse woody debris, promote vertical cover and future browse in the form of regenerating deciduous species, and woody browse from downed tree tops that will be available to a variety of herbivores during winter.

Next Step
Treatments:

Acceptable Any mix of alder, lowland shrubs, aspen, maple, etc.
Regen:

Other Restrict any treatments to outside the Natural Rivers Buffer of the Boardman River. Target decadent alder and aspen to regenerate. Stagger
Comment: patch cuts about 5 years apart.

Proposed Start Date: 10/1 /2019



S
t
a
n
d

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
92 61047092-NF	7.0	3301 - Low Density Deciduous Trees	Nonstocked			NonForestMgt	Fruit Tree/Shrub Planting	320 - Upland Shrub		Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

95 61047095-NF	5.3	3103 - Rubus-Fern	Nonstocked			NonForestMgt	Fruit Tree/Shrub Planting	3105 - Mixed Upland Herbaceous		Approved Proposal
----------------	-----	-------------------	------------	--	--	--------------	---------------------------	--------------------------------	--	-------------------

Habitat Cut: No

Site Condition:

Prescription Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.

Next Step
Treatments:

Acceptable
Regen:

Other Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.
Comment:

Proposed Start Date: 10/1 /2019

101 61047101-Cut	19.3	42290 - Natural Mixed Pine	Sawtimber Well	82	111-140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Approved Proposal
------------------	------	----------------------------	----------------	----	---------	---------	-------------------------	----------------------------	-----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Final Harvest with retention. Cut to 2" dbh. Chip tops if possible. Site prep as needed after harvest to prepare for red pine planting. Aspen and red maple sprouting would likely need controled with herbicide to release pine. Some large old red and white pine could be retained. Look also for retention along roadway. North part of stnad 103 may also be treatable.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Skidder/Mechanical; Planting, Initial Plant
Treatments:

Acceptable red pine, white pine, oak
Regen:

Other This site a very productive site with a good moisture regime. Currently the canopy is dominated with large diameter white and red pine with some old aspen, pole sized red maple and a small amount of oak. It would be desirable to restart this stand with the aim at re-establishing a pine dominated stand on this good site. White pine, jack pine and ballsam fir will likely regenerate naturally but red pine will need to be planted to get it re-established on this site. Red pine does not have consistent seed production years and needs bare mineral soil for seedlings to become established. These conditions were present after the large wildfires that occurred early in the 1900's but are not at this time. Therefore it is recommended that red pine be planted on this site to get a component of this species back in the mix.. Some of the large old white pine could be retained for seed production. Some oak could also be retained for mast production.

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
106	61047106-Cut	8.9	4133 - Aspen, Mixed Pine	Sawtimber Well	56	81-110	Harvest	Group Selection	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Harvest aspen and poor formed oak, pine and maple. Attempt to regenerate pockets of aspen. May want to remove aspen from adjacent											
<u>Specs:</u> campground when treating this stand. Consider visual appeal as this stand is adjacent to campground, Retain most pine, oak and red maple.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen, oak, pine, red maple, birch, fir.											
<u>Regen:</u>											
<u>Other</u> Aspen is declining in this stand. This stand is adjacent to Forks campground so attempt to keep a well stocked stand with the remaining species											
<u>Comment:</u> other than aspen. Harvesting this aspen will reduce safety concerns and appearance close to the campground. A large younger aged aspen stand is found south of this stand. Harvesting this stand at this time will create some age diversity.											
<u>Proposed Start Date:</u> 10/1 /2019											
111	61047111-Cut	6.0	6112 - Lowland Aspen	Poletimber Well	34	81-110	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Retain cedar and some scattered red pine, white pine, oak as found. Harvest Merchantable stems to regenerate aspen.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> aspen, red maple, oak, balsam fir, white pine, red pine, cedar.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2020											
122	61047122-Cut	13.3	4310 - Pine, Oak Mix	Sawtimber Well	107	111- 140	Harvest	Seed Tree with Retention	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Marked well formed oak, pine and red maple to retain for seed source. Harvest remaining merchantable stems. Keep remaining Basal area to											
<u>Specs:</u> 45-50. Keep extra retention along motorcycle trail.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> oak, pine, aspen, red maple.											
<u>Regen:</u>											
<u>Other</u> This stand has mature pine and oak and overmature aspen. This harvest should re-start the aspen and red maple through sprouting along with											
<u>Comment:</u> some oak from stump sprouts. White and red pine are well suited to this site and should also regenerate by seedlings. Red pine has difficulty regenerating without exposed mineral soil. Some mechanical post harvest scarification may be done to expose mineral soil to encourage red pine seedling development.											
<u>Proposed Start Date:</u> 10/1 /2019											
124	61047124-Cut	10.9	4126 - White, Black, N. Pin Oak	Sawtimber Well	109	81-110	Harvest	Clearcut with Retention	4310 - Pine, Oak Mix	Even-Aged	Approved Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Harvest all trees to 2" dbh. Prepare site after harvest and plant red pine. Chip tops if possible. Keep stumps 6" or less. Retention along											
<u>Specs:</u> motorcycle trail and also on the east and south sides of the treatment area.											
<u>Next Step</u> SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring,											
<u>Treatments:</u> Artificial Regen(3yr)											
<u>Acceptable</u> mixed oak, white pine, red pine.											
<u>Regen:</u>											
<u>Other</u> The management are plan for this area requires harvesting a portion of the older oak in this compartment. The stands in this treatment are											
<u>Comment:</u> composed mainly of mature lower quality oak with some red maple, pine and aspen. This treatment area will be planted with red pine after harvest. Red pine was historically found in these stands but is difficult to regenerate without ground disturbance or fire. Planting red pine will get his species back in the mix. White pine and oak will likely regenerate naturally. Red maple, cherry and aspen may also regenerate naturally in this stand and may be chemically controlled in the future to release the pine and oak. A no cut strip will be left along the motorcycle trail. Long term retention areas are also left on the east and south sides of the treatment											
<u>Proposed Start Date:</u> 10/1 /2019											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
128	61047128-Cut	7.4	4124 - Red with White Oak	Sawtimber Well	94	81-110	Harvest	Clearcut with Retention	4310 - Pine, Oak Mix	Even-Aged	Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Harvest all trees to 2" dbh. Prepare site after harvest and plant red pine. Chip tops if possible. Keep stumps 6" or less. Retention along motorcycle trail and also on the east and south sides of the treatment area.
Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring, Treatments: Artificial Regen(3yr)

Acceptable oak,pine mix
Regen:

Other The management are plan for this area requires harvesting a portion of the older oak in this compartment. The stands in this treatment are composed mainly of mature lower quality oak with some red maple, pine and aspen. This treatment area will be planted with red pine after harvest. Red pine was historically found in these stands but is difficult to regenerate without ground disturbance or fire. Planting red pine will get his species back in the mix. White pine and oak will likely regenerate naturally. Red maple, cherry and aspen may also regenerate naturally in this stand and may be chemically controlled in the future to release the pine and oak. A no cut strip will be left along the motorcycle trail. Long term retention areas are also left on the east and south sides of the treatment

Proposed Start Date: 10/1 /2019

130	61047130-Cut	35.4	4126 - White, Black, N. Pin Oak	Sawtimber Medium	90	51-80	Harvest	Overstory Removal	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
-----	--------------	------	---------------------------------	------------------	----	-------	---------	-------------------	----------------------------	----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Remove most remaining oak in overstory. Retain most/all pine and some @20-40 ba well formed oak for mast and seed production. Attempt to protect advanced regeneration in understory. Shortwood harvest.
Specs:

Next Step
Treatments:

Acceptable mixed pine, oak, aspen, red maple
Regen:

Other This stand was partially harvested in 2000 with red maple, aspen, jack pine and some oak removed. White pine seedlings along with red maple, aspen and oak sapling are currently in the understory. This harvest will remove most remaining oak overstory to allow understory to develop. The stand is moving to a pine dominated stand from oak. Most pine will be retained in the canopy as well as some well formed oak. White pine grows with the best form and less weevil damage when grown through an existing overstory. Some oak stump sprouts may also grow into stand if given enough sunlight.

Proposed Start Date: 10/1 /2019

131	61047131-Spray	25.0	4124 - Red with White Oak	Sawtimber Poor	107	1-50	Pesticide	Skidder/Mechanical	4211 - Planted Red Pine	Even-Aged	Draft Proposal
-----	----------------	------	---------------------------	----------------	-----	------	-----------	--------------------	-------------------------	-----------	----------------

Habitat Cut: No

Site Condition: Age-Class or Site Quality

Prescription Spray herbicide to release planted red pine from deciduous competition. Do not spray stand 194 which is pockets of aspen regen.
Specs:

Next Step Monitoring, Herbicide Use
Treatments:

Acceptable red pine, white pine
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
138	61047138-Burn	93.4	4124 - Red with White Oak	Sawtimber Poor	100	1-50	Burn	Opening	3303 - Mixed Low Density Trees		Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, burning, or removal of woody encroachment.

Next Step Monitoring, Prescribed Burn
Treatments:

Acceptable Barrens habitat forbs and grasses.
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 5 /1 /2019

139	61047139-Cut	23.3	4126 - White, Black, N. Pin Oak	Sawtimber Well	90	81-110	Harvest	Clearcut with Retention	4310 - Pine, Oak Mix	Even-Aged	Approved Proposal
-----	--------------	------	---------------------------------	----------------	----	--------	---------	-------------------------	----------------------	-----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Harvest all stems to 2" dbh. Chip tops if possible. Keep stumps 6" or less. Trench and plant red pine after harvest. Long term retention area on west side in consideration of retention and green up concerns.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring,
Treatments: Artificial Regen(3yr)

Acceptable Mixed oak and pine.
Regen:

Other This stand has medium quality oak log trees with some aspen, pine and red maple. The ten year plan for this management area calls for increasing oak regeneration and conversion of poor oak sites to pine/oak mixes. Harvesting this site should cause some oak to regenerate from stump sprouts. Planting red pine will assure that the stand has good stocking with a mix of pine and oak. Red maple and aspen may also restart in stand through sprouting and may be controlled with herbicides in future to release pine and oak.

Proposed Start Date: 10/1 /2019

144	61047144-Cut	6.0	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	58	111-140	Harvest	Crown Thinning	429 - Mixed Upland Conifers	Two-Aged	Approved Proposal
-----	--------------	-----	---------------------------------------	----------------	----	---------	---------	----------------	-----------------------------	----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Harvest remaining jack pine, aspen and red maple by specification. Orange mark remaining stems to create canopy gaps by removing poorly formed, over-mature or overcrowded trees. The main objective of this harvest is to salvage declining jack pine and aspen. New age class should form in the understory. Some pockets of white pine regeneration are already found in sub-canopy.

Next Step
Treatments:

Acceptable
Regen:

Other This stand is mixed pine with oak, aspen and red maple. The jack pine and aspen are declining in vigor and falling out of stand. The purpose of this harvest is to salvage these trees. This will cause canopy gaps that should fill in with new trees in the understory. Some red and white pine and oak may be removed to create canopy gaps or to crown release quality trees.

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
146	61047146-Plant	34.5	42200 - Natural White Pine	Sawtimber Poor	80	1-50	Planting	Replant	429 - Mixed Upland Conifers	Even-Aged	Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Site initially planted 2014 with poor survival. Sprayed 2017 with herbicide to control cherry, red maple, aspen. Re-plant 2018 to bring stocking up to acceptable level. Replant completed 5/2018.

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable red pine, white pine.
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

148	61047148-Cut	32.0	4126 - White, Black, N. Pin Oak	Sawtimber Well	125	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Uneven-Aged	Approved Proposal
-----	--------------	------	---------------------------------	----------------	-----	--------	---------	-------------------------	----------------------------	-------------	-------------------

Habitat Cut: No

Site Condition:

Prescription Green mark some well formed -smaller diameter oak for retention and retain most pine as well. Harvest remaining merchantable stems in stand.
Specs:

Attempt to protect advanced pine regeneration. Retain trees along motorcycle trail as found.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable aspen, oak, red maple, pine.
Regen:

Other This stand has a mature lower quality oak canopy with a good bit of advanced white pine regeneration in the understory. Harvesting most of the oak will allow the understory to advance and form a new stand. Some oak, red maple and aspen sprouts should also form the new stand along with the pine that is already present. Some red pine saplings are also found in this stand. Care should be taken to protect the understory trees as possible. The 10 year plan for this management area calls for the harvesting of a portion of these older oak stands to get new stands started. Much of the oak in this compartment is near 100 year age and declining in vigor and health.

Proposed Start Date: 10/1 /2019

155	61047155-Cut	16.5	42290 - Natural Mixed Pine	Sawtimber Well	112	141-170	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Approved Proposal
-----	--------------	------	----------------------------	----------------	-----	---------	---------	-------------------------	-------------------------	-----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Harvest to 2" dbh. Chip tops or reduce slash enough to chop, trench and plant. Strip retention along supply road. Reduce stump height below 6" for all stumps. Plant red pine after harvest. Chipping would be preferred if feasible at the time of sale prep.

Next Step Pesticide, Aerial; SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant
Treatments:

Acceptable Planted red pine, white pine, oak.
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

157	61047157-Cut	10.9	4126 - White, Black, N. Pin Oak	Sawtimber Well	117	1-50	Harvest	Clearcut with Retention	42250 - Pine, Oak	Even-Aged	Approved Proposal
-----	--------------	------	---------------------------------	----------------	-----	------	---------	-------------------------	-------------------	-----------	-------------------

Habitat Cut: No

Site Condition:

Prescription Harvest to 2" dbh. Chip tops if possible at time of harvest. Keep stumps 6" or less. Retention strip along motorcycle trail and along north side of treatment. Plant red pine after harvest. Roller chop or/and spray if necessary to control red maple, cherry, aspen sprouting.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable mixed pine, oak
Regen:

Other The area of this treatment currently has low quality, poorly stocked oak with some red maple poles, pine and a small amount of mature aspen. The understory has some white pine and red maple that has been damaged by snow. The goal of this treatment is to restart this stand with planted red pine after harvest. This treatment is adjacent to a managed wildlife opening and within an area that has been specially managed for whitetail deer. As this stand grows in it should provide a good area of bedding cover for a number of years.

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
158	61047158-Monitor	1.3	330 - Low-Density Trees	Nonstocked		Unspecified	Monitoring	Artificial Regen(1yr)	4136 - Aspen, Mixed Conifer	Even-Aged	Draft Field Boundary

Habitat Cut: No **Site Condition:**

Prescription re-plant 2018. Check regen success 2019.

Specs:

Next Step ; ; Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable red pine, white pine

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 3 / 1 /2019

160	61047160-Cut	10.6	4311 - Pine, Aspen Mix	Poletimber Well	58	111-140	Harvest	Crown Thinning	4319 - Mixed Upland Forest	Two-Aged	Approved Proposal
-----	--------------	------	------------------------	-----------------	----	---------	---------	----------------	----------------------------	----------	-------------------

Habitat Cut: No **Site Condition:**

Prescription Harvest most jp, rm, and aspen by specification. Retain some aspen with cavities and well formed rm and jp as found. If necessary mark oak

Specs: and wp/rp for removal for crown release of remaining stems. The main objective of this treatment is to remove declining jp and aspen and to release advanced regeneration. Retain trees most along motorcycle trail

Next Step

Treatments:

Acceptable pine, oak, red maple, aspen.

Regen:

Other This stand is recommended for this treatment because the jack pine and aspen is declining in vigor and dying out of stand. Red maple in this stand is poor quality and will also be removed to make space for better suited trees for this site. Lower quality mature oak is also found in this stand. Some of the poor quality oak stems will be removed as well. This action will create canopy gaps that will allow sunlight to reach the forest floor and allow for growth of new trees into the stand and will also allow advanced regeneration that is already present in the stand to grow. Red, white and jack pines seem well suited in this stand.

Proposed Start Date: 10/1 /2019

165	61047165-NF	6.2	31021 - Cool Season Grass	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	31022 - Warm Season Grass		Approved Proposal
-----	-------------	-----	---------------------------	------------	--	-------------	--------------	---------------------------------	---------------------------	--	-------------------

Habitat Cut: No **Site Condition:**

Prescription Maintain as needed with mowing, treatment of exotics, seeding of native grasses and forbs, burning, or removal of woody encroachment.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other This opening has a nice component of little bluestem and is highly visible from Broomhead Road.

Comment:

Proposed Start Date: 10/1 /2019

170	61047170-Cut	14.9	4126 - White, Black, N. Pin Oak	Sawtimber Well	117	81-110	Harvest	Clearcut with Retention	4310 - Pine, Oak Mix	Even-Aged	Approved Proposal
-----	--------------	------	---------------------------------	----------------	-----	--------	---------	-------------------------	----------------------	-----------	-------------------

Habitat Cut: No **Site Condition:**

Prescription Harvest to 2" dbh. Chip tops if possible at time of harvest. Keep stumps 6" or less. Retention strip along motorcycle trail and along north side of

Specs: treatment. Plant red pine after harvest. Roller chop or/and spray if necessary to control red maple, cherry, aspen sprouting.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable oak, pine mix.

Regen:

Other The area of this treatment currently has low quality, poorly stocked oak with some red maple poles, pine and a small amount of mature aspen. The understory has some white pine and red maple that has been damaged by snow. The goal of this treatment is to restart this stand with planted red pine after harvest. This treatment is adjacent to a managed wildlife opening and within an area that has been specially managed for whitetail deer. As this stand grows in it should provide a good area of bedding cover for a number of years.

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
176	61047176-Cut	11.6	4310 - Pine, Oak Mix	Sawtimber Well	89	111-140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Approved Proposal

Habitat Cut: No

Site Condition:

Prescription Harvest to 2" dbh. Tops should be chipped if possible. If not, slash must be reduced to a level that will allow trenching and planting. After
Specs: harvest prepare site for planting red pine by chopping, spraying herbicide and trenching as needed. Treat with stand 155. Retention area along road.

Next Step Pesticide, Aerial; SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant
Treatments:

Acceptable red pine, white pine oak
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

186	61047186-Spray	40.2	4122 - Oak, Pine	Sawtimber Poor	80	1-50	Pesticide	Aerial	4211 - Planted Red Pine	Even-Aged	Draft Proposal
-----	----------------	------	------------------	----------------	----	------	-----------	--------	-------------------------	-----------	----------------

Habitat Cut: No

Site Condition: Shelterwood/Seed Source

Prescription Spray herbicide to release planted red pine from deciduous competition.
Specs:

Next Step Monitoring, Herbicide Use
Treatments:

Acceptable red pine, white pine,
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

193	61047193-NF	19.7	330 - Low-Density Trees	Nonstocked			NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Approved Proposal
-----	-------------	------	-------------------------	------------	--	--	--------------	---------------------------------	---------------------------	--	-------------------

Habitat Cut: No

Site Condition:

Prescription Part of this opening is a traditional wildlife planting. Plant to annual rye for several years and then convert to a pasture mix (i.e. clover/alfalfa) if
Specs: soil will support it. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.

Next Step
Treatments:

Acceptable
Regen:

Other Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages
Comment: or tubex. Possibly add native grasses/forbs to non cultivated area. Maintain as needed with mowing, seeding of native grasses and forbs, burning, or removal of woody encroachment.

Proposed Start Date: 10/1 /2019



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
199	61047199-Cut	4.5	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	110	51-80	Harvest	Clearcut with Retention	4310 - Pine, Oak Mix	Even-Aged	Approved Proposal

Habitat Cut: No **Site Condition:**

Prescription Harvest all trees to 2" dbh. Prepare site after harvest and plant red pine. Chip tops if possible. Keep stumps 6" or less. Retention along
Specs: motorcycle trail and also on the east and south sides of the treatment area.

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring,
Treatments: Artificial Regen(3yr)

Acceptable mixed oak and pine
Regen:

Other The management are plan for this area requires harvesting a portion of the older oak in this compartment. The stands in this treatment are
Comment: composed mainly of mature lower quality oak with some red maple, pine and aspen. This treatment area will be planted with red pine after harvest. Red pine was historically found in these stands but is difficult to regenerate without ground disturbance or fire. Planting red pine will get his species back in the mix. White pine and oak will likely regenerate naturally. Red maple, cherry and aspen may also regenerate naturally in this stand and may be chemically controlled in the future to release the pine and oak. A no cut strip will be left along the motorcycle trail. Long term retention areas are also left on the east and south sides of the treatment

Proposed Start Date: 10/1 /2019

49	NF_61047049- Shrubs	2.3	3105 - Mixed Upland Herbaceous	Nonstocked			NonForestMgt	Other - Specify	3204 - Mast Producing Shrub		Draft Field Boundary
----	------------------------	-----	--------------------------------	------------	--	--	--------------	-----------------	-----------------------------	--	----------------------

Habitat Cut: No **Site Condition:**

Prescription Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or
Specs: tubex. May want to use commercial topsoil and/or other moisture storing materials with plantings to increase survival rate.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments: Monitor and tend to plantings as possible. Could work with an outdoor club to maintain plantings.
Comment:

Proposed Start Date: 12/30/1899

51	NF_61047051- HF	1.2	3105 - Mixed Upland Herbaceous	Nonstocked			NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary
----	--------------------	-----	--------------------------------	------------	--	--	--------------	---------------	--------------------------------	--	----------------------

Habitat Cut: No **Site Condition:**

Prescription Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or
Specs: conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 12/30/1899



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
56	NF_61047056-HF	2.8	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or
Specs: conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth. Target red maple and pine.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 12/30/1899

57	NF_61047057_HF	1.6	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	3204 - Mast Producing Shrub		Draft Field Boundary
----	----------------	-----	-------------------------	------------	--	-------------	--------------	---------------	-----------------------------	--	----------------------

Habitat Cut: No

Site Condition:

Prescription Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or
Specs: conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments: May want to plant a few fruiting shrubs after hand-felling.
Comment:

Proposed Start Date: 12/30/1899

57	NF_61047057-Shrubs	3.5	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3204 - Mast Producing Shrub		Draft Field Boundary
----	--------------------	-----	-------------------------	------------	--	-------------	--------------	-----------------	-----------------------------	--	----------------------

Habitat Cut: No

Site Condition:

Prescription Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or
Specs: tubex. May want to use commercial topsoil and/or other moisture storing materials with plantings to increase survival rate.

Next Step
Treatments:

Acceptable
Regen:

Other Previous apple tree planting did not take. Could cut back some woody encroachment. Old next step comments: Monitor and tend to plantings
Comment: as possible. Could work with an outdoor club to maintain plantings.

Proposed Start Date: 12/30/1899

120	NF_61047120-Degraded	2.1	3104 - Degraded	Nonstocked			NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		Draft Field Boundary
-----	----------------------	-----	-----------------	------------	--	--	--------------	-----------------	--------------------------------	--	----------------------

Habitat Cut: No

Site Condition:

Prescription Degraded site. Should revegetate to low maintenance herbaceous vegetation suitable for wildlife forage or cover. Soil will most likely need
Specs: considerable reconditioning.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 12/30/1899



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
183	NF_61047183-HF	1.1	3105 - Mixed Upland Herbaceous	Nonstocked			NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Hand fell some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Leave stumps to rot to provide future food source for insectivores, etc. Stumps should be tall enough to be visible above the average snow depth.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 12/30/1899

Total Treatment Acreage Proposed: 622.8

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions												
		With Condition	Not Available		2B	4A	5B	5C	2F	2G	2H	3A	3D	3H	3J	5E	ed
297	233	25	38	Aspen	14			11			10		1		27		
2	2	0	0	Bare/Sparsely Vegetated													
1	0	1	0	Bog	1												
3	0	0	3	Cedar											3		
38	38	0	0	Herbaceous Openland													
9	9	0	0	Jack Pine													
50	50	0	0	Low-Density Trees													
110	48	30	26	Lowland Aspen/Balsam Poplar	3	27				9	16		0		1		5
82	4	0	77	Lowland Conifers						5		26	9		38		
7	7	0	0	Lowland Deciduous													
40	10	0	30	Lowland Mixed Forest				0	3	6	8				13		
42	32	0	10	Lowland Shrub					10								
65	20	13	31	Marsh	13								31				
302	211	86	5	Mixed Upland Deciduous	19		6	60							5		
229	145	66	11	Natural Mixed Pines	9		28	29						5		6	7
39	27	0	11	Northern Hardwood					11								
1375	555	395	425	Oak			147	249	74				255		48	48	0
47	47	0	0	Planted Mixed Pines													
35	30	0	5	Red Pine					5								
210	99	79	32	Upland Mixed Forest			53	26	11				16			5	
4	4	0	0	Upland Shrub													
30	30	0	0	Urban													
38	24	0	14	Water									0		14		
91	84	6	0	White Pine				6									
3,144	1,711	702	718	Total Forested Acres	61	27	233	382	114	20	34	26	311	5	149	59	13
	54%	22%	23%	Relative Percent													

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	2B: Unknown if access through adjacent landowner(s) is possible	11	Unspecified	Unspecified	Unspecified	Unspecified

Comments:

Report 4 – Site Conditions

Traverse City Mgt. Unit
Pat Ruppen : Examiner

Compartment: 47
Year of Entry: 2020

2	Available	2B: Unknown if access through adjacent landowner(s) is possible	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	2B: Unknown if access through adjacent landowner(s) is possible	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Boardman River floodplain							
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

8	Unavailable	2F: Too steep	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	3D: Recreational / Scenic values	68	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand has ski trail horse trail and snowmobile trail. Trail congestion would make management difficult.							
10	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	2B: Unknown if access through adjacent landowner(s) is possible	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Steep slope above Boardman River.							
13	Available	2B: Unknown if access through adjacent landowner(s) is possible	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

14	Unavailable	2F: Too steep	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	3D: Recreational / Scenic values	20	3J: Water quality / BMPs (stream, river, or lake)	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified
Comments: Muncie Lake Ski Trail and riparian areas around the Muncie Lakes							
19	Unavailable	5E: Long-Term Retention	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Muncie Lake Ski Trail Buffer							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

20	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	2F: Too steep	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Unavailable	3D: Recreational / Scenic values	96	Unspecified	Unspecified	Unspecified	Unspecified
Comments: High density of recreation trails in stands makes management difficult. Small areas of stand may be available							
23	Unspecified	Unspecified	1				
Comments:							
24	Unspecified	Unspecified	0				
Comments:							
25	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments:							
26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

27	Unavailable	2F: Too steep	6	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: This stand has ski trail horse trail and snowmobile trail. Trail congestion would make management difficult.</p>							
28	Unavailable	2F: Too steep	18	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
<p>Comments: Most is steep for working and ski trail runs on better laying ground</p>							
29	Unavailable	2F: Too steep	13	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
<p>Comments:</p>							
30	Unavailable	2F: Too steep	25	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							
31	Unavailable	2F: Too steep	3	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Stand harvested and planted last entry period. Retained trees in canopy are triggering concern due to age.</p>							
33	Unavailable	5E: Long-Term Retention	17	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

34	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
35	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
36	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
37	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low density log sized oak..... multi-part stand. These parts of original stand were kept to a higher stocking for variety along the ski trail. Let trees develop.							
38	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Oak retention in aspen regeneration harvest is flagging stand. Keep this oak over story for mast and seed production as aspen and oak understory develops.							
39	Unavailable	3D: Recreational / Scenic values	80	Unspecified	Unspecified	Unspecified	Unspecified
Comments: The density of trails in this stand along with the terrain makes management difficult.							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

40	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: A large area to the west of this stand has been recently harvested and planted. Although a portion of this stand could be harvested and re-planted, it would be better to let the adjacent stand develop. The Muncie Ski Trail traverses this stand and also limits available acres. .							
41	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Surrounding stands have been recently harvested or are prescribed in this YOE. Keep this small stand for age class diversity.							
42	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low density barrens like oak along Supply Road. Keep for diversity at this time							
43	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access blocked by river and terrain.							
44	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access blocked by river and terrain							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

45	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Conifer stand adjacent to lowland mix. Deer bedding area.							
46	Unavailable	3A: Conservation Values incompatible with harvest at this time	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Rich Conifer Swamp surveyed by MNFI. ERA							
47	Available	5B: Maintain for regeneration purposes	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Let sapling and pole component develop at this time. Adjacent stands will be treated this YOE							
48	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large adjacent area to the south will be harvested this YOE. This stand has better quality oak stems that would be worth putting more volume on before harvest.							
49	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
50	Available	5B: Maintain for regeneration purposes	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Let understory White pine poles develop into merchantable size before attempting to harvest and re-plant this stand.							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

51	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Adjacent stands recently treated or prescribed this YOE. Retain this stand at present							
52	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: West half of stand will be harvested along with adjacent stands this YOE.							
53	Available	5B: Maintain for regeneration purposes	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retained oak in this recently harvested and planted stand is flagging concern due to age.							
54	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Harvesting adjacent area							
55	Available	5B: Maintain for regeneration purposes	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand has been harvested and planted to red pine. Oak retention is flagging stand due to age							
56	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: small mixed oak and pine stand. good diversity in this area							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

57	Available	5B: Maintain for regeneration purposes	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small harvest area due to adjacent lowland and trail in stand. Stand is converting to oak as jack pine declines.							
58	Available	5B: Maintain for regeneration purposes	63	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Heavy understory poles and saplings will be damaged beyone acceptable level by trying to get older overstory off at this time.							
59	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
60	Unavailable	3D: Recreational / Scenic values	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Too many red trails to manage much of this stand							
61	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Blocked by river, terrain and private ownership. Access is not known bu may be possible.							
62	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention in stand that has been harvested and planted is flagging stand due to canopy age.							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

63	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Buffer strip along motorcycle trail							
64	Available	5B: Maintain for regeneration purposes	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention in stand that has been harvested is flagging stand due to canopy age.							
65	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
66	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Harvesting adjacent stands 2018 YOE							
67	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Most to stand is on steep slope. South part could be treated when adjacent stand is treated.							
68	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: adjacent stands recently treated or prescribed							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

69	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: adjacent stands prescribed 2018 YOE							
70	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: adjacent stands recently treated							
71	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
72	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	46	Unspecified	Unspecified	Unspecified	Unspecified
Comments: adjacent stands recently harvested or prescribed 2020 YOE							
73	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Allow stand to put on more volume at this time and for aspen component to lose vigor and fall out of stand. Will be good site to plant red pine in future.							
74	Available	5B: Maintain for regeneration purposes	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small stand. Allow second age fo develop							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 47

Year of Entry: 2020

75	Available	4A: No Markets Available for these Forest Products	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low volume lowland aspen. Probably not enough volume for commercial harvest.							
76	Available	5B: Maintain for regeneration purposes	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Open grown oak with oak understory developing. Let understory fill in before harvest							
77	Unavailable	2F: Too steep	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
78	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large nearby area to be harvested 2020 YOE							
79	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large adjacent area recently harvested							
82	Unavailable	3D: Recreational / Scenic values	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Forks Campground							



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
RENNIE LAKE BARRENS	Habitat Area	Habitat Corridor	SCA	132
Comments				
AREA MANAGED FOR PINE OAK BARRENS. WILL BE DEVELOPED AND MAINTAINED WITH PRESCRIBED FIRE. AREA HAS BEEN BURNED				



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	7.4	70	81-110	2018: Lower quality oak poles/small logs with rm, wp and aspen clones. Aspen is declining. Some jack pine remaining in stand but some has fallen out. Some wind throw in stand. 2008: A FEW LARGER PINE AND OAK SCATTERED AROUND BUT MOST IS IN THE 60 YR CLASS.
2	4199 - Other Mixed Upland Deciduous	Sawtimber Well	12.0	90	81-110	2018: Patchy aspen. Heavier aspen in the NW part of stand. Mixed sizes of oak but most is small log/pole and stunted looking. 2008:WOULD MAKE NICE ASPEN REGEN CUT IF ACCESS COULD BE ATTAINED.
3	4124 - Red with White Oak	Sawtimber Well	10.1	108	81-110	2018: Decline in red oak or oak wilt. Good bit of mortality. Large lower quality oak. Red maple poles and some oak poles growing through older wolfy oak. Some large older wp/rp scattered around. Good bit of wp understory -variable height. 2008: LARGE OLD PINE AND OAK. MOST IS WP AND PINNY RED OAK-PIN OAK. HEAVY WP REGEN AND RM. OTHER YOUNGER CLASS GROWN IN BUT COUNTED CANOPY. MANY DEN TREES. .
8	4130 - Aspen	Sapling Well	14.5	25	51-80	2018: Good growth on aspen. Harvested 1990-92. 2008: ASPEN CC FROM 1992
9	4131 - Aspen, Oak	Sawtimber Well	14.3	80	81-110	2018: Aspen is declining. Good quality red oak. No issues noted in red oak. This stand should be harvested if access could be attained. Not likely. 2008: Older rp and wp scattered around with 70-80 yr class of oak and aspen grown in. Some pine regen. A little better oak on this site. Nice pine. Heavy wp regen in places.
13	4131 - Aspen, Oak	Sawtimber Well	8.7	80	111-140	2018: Patchy aspen with areas heavier to oak. WP is coming in under oak. 2008: RIPARIAN ZONE AROUND LAKE AND SKI TRAIL.
15	4126 - White, Black, N. Pin Oak	Sawtimber Poor	12.1	105	1-50	2018: This stand was formed mainly from the trail buffer retained out of the timber sale described below.
16	4131 - Aspen, Oak	Poletimber Well	16.6	38	Unspecified	2018: Harvested 1981 Cut all merchantable. This stand may be one entry older. Look at harvest next entry or possibly this entry to balance age class if needed for re-start acres. A couple oak/pine retention pockets from last entry.
17	4130 - Aspen	Sapling Well	5.5	26		2018: Harvested 1990-92. Aspen looks fine. Good growth. 2008:CC around dip. young aspen regen.
19	4131 - Aspen, Oak	Poletimber Well	5.2	38	1-50	2018: Harvested 1981 Cut all merchantable Patchy aspen regen. Aspen looks fine. Good growth. Scattered oak and pine retention. 2008: SMALL ASPEN REGEN POCKET,
21	4130 - Aspen	Sapling Medium	2.4	6	Immature	TS# 084-10. Cut this small aspen stand while harvesting adjacent areas. Good aspen regeneration.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4126 - White, Black, N. Pin Oak	Sawtimber Well	11.9	105	81-110	2018: Low quality mature oak with rm, wp,rp. Pine looks best in this stand. Some aspen in north end. Could harvest with retention and plant red pine. Not much white pine remaining in understory as noted in 2008 inventory. Red maple saplings in understory and stump sprouts may need some control if planted. 2008: FILLED IN WITH WP. QUITE THICK IN PLACES AND 20-30-FT TALL.
23	4129 - Mixed Oak	Sawtimber Medium	5.2	96	51-80	2018: Small oak/pine mix stand. Keep for diversity and mast production. Some older aspen will make good snags and den trees.
24	4126 - White, Black, N. Pin Oak	Sawtimber Well	14.0	102	81-110	2018: Oak flat - mid quality mature oak with pine and red maple. Red maple and oak poles and saplings growing in. Jack pine is falling out of stand. May be a good place to try to keep a mature oak canopy with all the surrounding aspen. Small pocket of large aspen in north end of stand just south of pond. 2008: Larger oak with smaller oak and jp grown in. 23-30 ft wp and rp in understory.
25	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	10.4	70	51-80	2018: Jack pine is declining and should come out. QA quality is poor and declining also. Stand connect various drains but is workable. Could take out jp, aspen, red maple and poor formed oak and wp and let understory develop or could cut most and plant red pine if adjacent stand is treated. Some oak poles and saplings in understory. Treatment could expand a little around edges. 2008: jp looks fine for now
27	4126 - White, Black, N. Pin Oak	Sawtimber Well	11.3	110	51-80	2018: Mature oak stand with a little pine. Along private property. 2008: Oak mix small patches.
28	4130 - Aspen	Poletimber Well	8.8	38	51-80	2018: Patchy aspen. Most is Big Tooth with a little QA. Let stand grow in. Harvested 1981 Cut all merchantable 2008: Scattered pine retention with aspen grown in.
29	4124 - Red with White Oak	Sawtimber Poor	8.6	94	1-50	2018: Decent aspen regeneration after harvest in some areas. larger aspen cones have advanced but scattered aspen and oak sprouts have been heavily browsed and are not past deer yet so areas out of the aspen clones have been greatly affected.
30	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	58.5	33	51-80	2018 TS# 015-81. TCR 1985. Cut all merchantable?. Does not seem at this point that the sale was cut this way. There is a good bit of retention from older age classes of oak and pine. There are also retention patches on some of the slopes and depressions. Older age estimated at 100 yr. Stand is pretty complicated mix of ages and sizes at this time so we should let it develop. Some aspen clones. 2008: WAS CUT IN TWO SALES SO CURRENTLY TWO AGES FIVE YEARS APART. PATCHES OF OLDER TREES LEFT FOR RETENTION A FROM LAST SALES
31	4131 - Aspen, Oak	Poletimber Well	6.9	37	Unspecified	2018: TS completed 1983. Cut all merchantable aspen,jp,rp,oak and rm. Pockets of aspen with oak . 2008: Looks like it was cc and small oak left at that time. Some rp on ground. May have been planted with stand 33.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	42110 - Planted Red Pine	Poletimber Well	29.9	31	111-140	2018: TS completed 1983. Cut all merchantable aspen, jp, rp, oak and rm. Good height growth on rp. About 35-40 live crown. May need thinning next entry. 2008: looks like some smaller oak was left in cc and then rp planted around them. rm has grown in. rp looks alright.
33	4131 - Aspen, Oak	Sapling Well	12.1	38	1-50	2018: West side Harvested 1981 Cut all merchantable East side was cut in 1992. 2008: two different cuts in same stand. East side is age 16 but too small to stand alone. West side is age 28.
34	4126 - White, Black, N. Pin Oak	Sawtimber Well	11.0	96	51-80	2018 Side slope between roads. Factor Limit for steepness.
36	4126 - White, Black, N. Pin Oak	Sawtimber Well	58.8	110	51-80	2018: Consider removing most over-story to release existing advanced regeneration. Stand is surrounded by younger oak so we may want to carry this. Muncie Ski Trail through stand. May want to stay on west side or buffer. 2008: SOME SORT OF CUT IN 1983. SOME RP PLANTED IN 1987 BUT NOT NOTED THIS INVENTORY. HEAVY OAK REGEN. LOOKS LIKE IT WAS OPENED UP AND OAK DEVELOPED. MORE THAN NORMAL OAK AS IF A BURN HELPED RELEASE IT OR SOMETHING.
37	4124 - Red with White Oak	Sawtimber Well	11.2	106	111-140	2018: Mix of larger red oak with small logs and poles. Lower quality. Not many crop trees. Some areas have wp understorey. More in west end. Most aspen is also in west end. 2008: Some larger older oak but most is pole sized. Overstocked oak poles-sawlogs. Most is ro but just average quality.
38	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.0	110	111-140	2018: Small stand with mixed oak sizes and red maple saps/poles/logs. A couple small aspen clones. Good bit of oak seedlings on ground in place. 2008: larger ro with lots of rm sprouts growing and ba and wo
41	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	46.6	27	1-50	2018: Red pine looks alright. Some is suppressed. Some areas have heavier oak and pine residual and less planted pine especially in the SW part of stand. 2008: LOOKS LIKE YOUNGER RESIDUAL OAK AND PINE WAS LEFT AND RED PINE PLANTED THROUGH. LOOKS FINE AT THIS TIME. PLANTED 1991.
42	4126 - White, Black, N. Pin Oak	Sawtimber Well	63.3	105	81-110	2018: Lots of oak poles and saplings growing in under oak and pine canopy. Under story would be damaged beyond acceptable limits by trying to get over story off but saplings/poles are not large enough to thin at this time. May be best to let this stand grow in. May be able to thin next entry. 2008: jp is going out. could get jp rm aspen. jp and wp coming in. wp regen 10-30 ft in places. Oak coming in in places. Aspen clones mixed in. Old large oak scattered through with 70-80 yr class grown in.
43	4126 - White, Black, N. Pin Oak	Sawtimber Poor	13.5	109	1-50	2018: Trenched 2012. Planted rp 2013. Stand harvested with scattered oak and pine left for mast and seed source. Planted red pine looks alright but there is fairly heavy oak competition in places. Also some pockets of aspen sprouting. red pine does look better where there is less competition. RP averaging 30' height. Should result in mixed stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
44	4126 - White, Black, N. Pin Oak	Sawtimber Medium	18.6	102	1-50	2018: Mixed size/age of oak logs, poles, saps, seedlings. Good stocking of oak seedlings and saplings in places. Could take out older age class but would be hard on understory. Oak poles are older than they look. 7-8" wo aged 60. 8" PO aged 42. TS# 023-90. Some low density pockets of JP. TCR 1992 Cut to 2" dbh but no oak or green marked trees. 2008: Scattered oak with oak and jp growing in under.
45	4131 - Aspen, Oak	Poletimber Well	13.2	38	1-50	2018: Harvested 1981 Cut all merchantable. Aspen cones with thick oak regen patches. Good growth on aspen. Some older oak and pine scattered around in stand. 2008:28 yr old cc with patchy aspen regen, oak and jp. Open areas.
46	4310 - Pine, Oak Mix	Sawtimber Well	7.5	80	81-110	2018: JP is declining and falling out of stand. Oak seedlings and saplings filling in gaps. Let stand develop. Could get remaining jp out if nearby but not much volume. 2008: POOR QUALITY OAK BUT JP NOT BAD. GOOD BIT OF OAK UNDER THE PINE BUT MAYBE JUST MORE POOR QUALITY.
47	4126 - White, Black, N. Pin Oak	Sawtimber Well	57.9	98	51-80	2018: Lower quality oak with oak seedlings under in areas. Some steeper areas and depressions. Consider seed tree or shelter wood harvest. May be able to get oak regeneration but also may end up poorly stocked if not planted. May also want to harvest and weave in red pine on some of the better lying ground and let mixed stand develop. Ski Trail and snowmobile trail in stand. 2008: POOR QUALITY OAK BUT BIGGER DIAMETER AND CROWNS. MAY HAVE BEEN SOME HARVEST IN THE PAST.
48	4126 - White, Black, N. Pin Oak	Poletimber Medium	34.6	38	1-50	2018: Older oak and pine scattered around with 37 age grown in. More residual oak over-story in places. Aspen clones in northwest finger split off stand 150from this stand. Various ages of oak as gaps are filling in. Let stand develop. TS# 036 2000TCR 2001. Cut all merch. aspen and jp. Left all oak,wp,rp, + green marked. 2008:LOOKS LIKE IN LAST HARVEST THE YOUNG OAK AND BIG PINE WA S LEFT. TWO STORIED WITH SCATTERED RP SUPERCANOPY AND YOUNG OAK. SECOND LAYER IS OAK SPROUTS AND SMALL JP SEEDLINGS.
50	4126 - White, Black, N. Pin Oak	Poletimber Well	16.8	34	1-50	2018 Split off stand 161 which is aspen clones from last parent treatment. Let stand grow in. Low quality oak at this time. 2008:Some big oak and pine left for retention in last cut. Cut in 84. oak,wp,rp,jp and rm regen.
54	4126 - White, Black, N. Pin Oak	Sapling Poor	17.6	24	1-50	2018: Oak sapling/pole stand after jp harvest. Low quality oak at this time. Let stand develop. Heavy woody debris. 2008: JP GOING OUT NEEDS CUT GOING TO OAK. WP IN SOUTH END AND A LITTLE RPTS# 610021101 Cut all merchantable jp, rm, and aspen. A good stocking of oak saplings after the harvest.
55	4310 - Pine, Oak Mix	Sawtimber Well	27.0	98	81-110	2018: Most JP from previous inventory has fallen out of stand. Some larger oak and pine scattered around. Red pine is good in stand. Horse trail, Muncie Ski Trail, Snowmobile Trail. Some hilly areas and a part in the SW is too steep. Factor limit that part. 2008: some older pine and oak with younger age grown in. A fair amount of rp and oak in second age class. jp going out.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4126 - White, Black, N. Pin Oak	Sawtimber Well	96.0	102	81-110	2018: Parts of this stand cut in 1980-84 Cut all merchantable aspen, oak and pine. Did not see evidence of this cut in field inventory. Maybe it was orange marked. More red pine in understory than normally seen. Oak seedlings are steady in understory but some areas are heavier. Thicker wp understory in places also. Heavy trail influence in stand. Muncie Ski Trail, horse trail and snowmobile trail. Consider some patch cuts in stand. They would likely regenerate to oak/pine if large enough. Looks like there may be room for a harvest in southeast part of stand. . 2008:Somewhat open grown oak-not much quality. Some rp with regen around old trees. Some areas are going heavy to wp. Could cut out most low quality oak and stick rp in openings. Trying to go to pine. Looks like rp is trying to get in stand. Avoid areas with heavy advanced wp regen. leave oak in these spots or save as retention islands.
61	4126 - White, Black, N. Pin Oak	Sawtimber Well	75.1	96	111-140	2018: Lower quality log sized oak with horse trail, ski trail and snowmobile trail through stand. Factor limited for recreation. Some oak and wp seedling/saplings in understory. More wp understory in N end. East side of stand is steep but most of the stand lays well. 2008: Old savannah with grown in oak, rm and pine. wp coming in with layer of browsed oak. A little rp regen. 86 year old oak with scattered old trees from earlier savannah.
62	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	5.9	108	51-80	2018: Jp fallen out of stand, Oak/pine mix. Looks like this was treated with adjacent stand 63 and aspen and red maple were cut 20-25 years ago. This stand is heavier to oak and pine. 2008: A little older scattered oak around. Going to wp. A little rp coming in.
63	4310 - Pine, Oak Mix	Poletimber Well	19.9	34	1-50	2018: Mixed ages some scattered around rp,wp and oak log trees. older pine is 55-65 years old. Stand is still filling in with oak and pine seedlings and saplings. Let stand develop. 2008:Variable ages of pine and oak 10-45 yrs. A couple of aspen clones. Looks like it was cut before with a lot of pine and oak retention that wa younger. The rest has seeded in and sprouted.
64	4117 - Mixed N. Hardwood - Pine	Sapling Poor	11.2	15	Immature	2018: Knobs and steep slopes above river with regeneration on the slopes and some light regeneration on the flats. Has been harvested in the past. Maybe it was old jack pine. Most is now cherry brush with jp, oak rm. Not evident how or why this was harvested. 2008:Moss, mullin.
65	4126 - White, Black, N. Pin Oak	Sawtimber Well	105.4	106	81-110	2018: Mixed sizes. Larger oak with small logs and poles mixed in. Mixed quality also through stand. Some areas look like there is enough quality to thin. Most areas do not have enough crop trees to justify thinning. The south end has some slope to it. The strip on the east side follows a drain. 2008: Stunted oak. Could cut out junky stems to release better quality. Stand to South looks treated.
67	42290 - Natural Mixed Pine	Sawtimber Well	7.0	70	81-110	2018: Split stand 204 off from this stand. This stand is a small upland area along road.
69	6112 - Lowland Aspen	Sawtimber Poor	6.9	70	51-80	2018: Low stocked lowland aspen which is declining. 2008: QA in low area. Some pockets full of tag alder.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	4126 - White, Black, N. Pin Oak	Sawtimber Well	31.2	116	81-110	steep slope going down to the river.
72	6127 - Lowland Pine	Sawtimber Well	20.5	110	81-110	2018: Large super canopy wp with some large red oak, aspen and rm. BF understory. North end is heavier to BF poles 8-10' dbh. STRIP ALONG RIVER
74	4310 - Pine, Oak Mix	Poletimber Well	13.6	80	81-110	2018: Some of the jack pine is still left but more has fallen out since last inventory. Some larger weveled white pine scattered around. Some wp and oak saplings in understory. Lower quality mixed stand. Could harvest and regenerate this stand- but the ski trail goes through it and the acreage would be influenced by the low area NF stand 35. Not a lot of understory. Would have been a good place to weave in some red pine NW corner is low density jack pine with cherry. 2008: JACK PINE GOING OUT JP NOT BAD IN PLACES. COULD CUT BACK TO SEED TREES AND MAST TREES AND WEAVE RP IN. SOME RP SEEDING IN NATURAL FROM OLD TREES. NW FINGER NOT REALLY THE SAME.
75	6112 - Lowland Aspen	Poletimber Well	5.4	34	81-110	2018: TS# 040-80. TCR 1984. Cut all merchantable but no cedar. 2008:lowland mix where aspen was cut off higher ground. This stand created from that higher ground aspen.
78	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	19.8	38	51-80	2018: Looks like most or all of the pine was left in last harvest along with some scattered large oak. Stand looks like it is heading toward white pine/red maple with some oak. A good bit of wp in the pole/sapling sizes along with the log trees in canopy. 2008: pole/sapling sized regen from past harvest. Some older wp in supercanopy.
79	6112 - Lowland Aspen	Sawtimber Well	9.5	80	1-50	2018:Mixed oak, aspen, birch on river floodplain. Aspen and birch declining. Does not seem accessible and may be pretty wet seasonally. 2008:Aspen going out. Would make a good habitat cut if accessible and volume is enough. May be issue with proximity to river.
80	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	4.9	70	51-80	Strip of land between river and private property. Corner stake in river
81	4130 - Aspen	Poletimber Well	16.2	43	1-50	2018: Good growth on aspen. Let stand develop. 2008: Aspen cuts near Pugsley 1975
82	6112 - Lowland Aspen	Sawtimber Poor	8.6	70	1-50	2018: Most canopy has died or blown down. Almost lowland brush-tag alder. 2008: BRUSHY SWAMPY HARDWOODS.
83	4126 - White, Black, N. Pin Oak	Poletimber Well	30.4	38	51-80	2018: Low quality oak and red maple from stump sprouts. Let stand develop. 2008: Mainly stump sprouts of oak and rm. A little older oak that was left as retention from last cut. Open grown and lower quality at this time. A little rp and wp.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
85	4134 - Aspen, Spruce/Fir	Poletimber Well	34.0	34	81-110	2018: TS# 040-80. TCR 1984. Cut all merchantable but no cedar. Mix of upland humps and lower wetter areas with some tag alder. Some wp, pin oak cherry and rm on higher ground. Heavier to aspen and bf in lower areas. Some aspen with white rot. Could be harvested. Aspen may hold volume but quality and stocking may decline.
86	4126 - White, Black, N. Pin Oak	Sawtimber Well	6.8	102	51-80	2018: lower stocking open grown oak. Pockets of oak seedling under. JP has fallen out of stand. 2008: Could get jp if in area. jp is declining and falling out. Not much volume.
87	42290 - Natural Mixed Pine	Sawtimber Well	22.7	64	111-140	2018: Mixed pine sizes L/XL/P/S. Pockets heavier to JP. Aspen component is looking rough and falling out. Still enough to cause competition problems if this stand was cut and planted to pine. May be best to let this stand put on more volume and let the aspen continue to loose vigor. 2008: scattered big old pine with younger age class grown in. Nice pine with good growth. Nice natural pine with some really big red and pretty big white as well.
89	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	8.1	72	51-80	2018: Aspen is declining. Some dead spruce. Not much recruitment in understory. A few pockets of spruce/fir. Would have habitat benefits if this aspen could be regenerated but not sure of access or ground stability. Flood plain of Boardman river 2008: lowland
90	6112 - Lowland Aspen	Poletimber Poor	27.5	60	1-50	2018: Poorly stocked QA with pockets of tag alder. Would be desirable from a habitat standpoint to try to re-start this aspen but likely not a commercial harvest. Regeneration would likely get browsed heavily resulting in a lowland brush stand. Most of this ground may be workable in dry or frozen conditions. New bridge across Boardman River going over to Ranch Rudolf property. 2008: WOULD MAKE NICE HABITAT CUT FOR GAMEBIRDS BUT CLOSE TO BRANCH OF BOARDMAN. LOOKS LIKE IT MAY HAVE BEEN CUT BEFORE.
94	6130 - Fir, Aspen, Maple	Poletimber Well	9.0	40	51-80	2018: Mixed aspen, balsam fir, red maple. LOW GROUND.
96	4126 - White, Black, N. Pin Oak	Sawtimber Well	17.6	100	111-140	2018: Overstocked low quality oak. Mixed sizes. Most is too steep to manage effectively and there are not enough crop trees to be interesting. ski trail through stand on ground that can be traversed. May be able to do some patch harvests at some point on the manageable ground. 2008: Steep areas with ski trails. A few wokable flats but quality isn't very good , most is stump sprout origin and multiple stem.
98	42200 - Natural White Pine	Poletimber Poor	13.5	39	1-50	2010: Good aspen regeneration after harvest. Growing through wp canopy that was left from harvest. Most was pole sized at that time but now growing into small logs/poles. Older age classes scattered around also. Let this stand grow in until aspen is merchantable.
99	4131 - Aspen, Oak	Sawtimber Well	10.0	80	81-110	2018: Aspen with oak/pine mixed in. Mixed oak sizes. Large red and white pine in east side. Aspen is declining. 2008: lower area- most is aspen some oak, wp, ash, rm Some old scattered wp and rp. Would be good for habitat for harvest this aspen to regenerate.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
100	4126 - White, Black, N. Pin Oak	Sawtimber Well	11.1	100	51-80	2018: Low density patchy oak and red maple. Barrens like oak around opening but low quality. 2008: open grown oak and rm. Nice oak break around opening.
101	42290 - Natural Mixed Pine	Sawtimber Well	20.0	82	111-140	2018: Mixed aged white pine with red pine and aspen, Lower edges and depressions have spruce/fir. Ground lays good. Very good red pine growth. 16-20' dbh @ 65yr. Aspen is starting to fall out. A little JP in NE corner. 2008: SLIGHTLY HIGHER GROUND IN MIXED LOW HARDWOOD AREA. MIXED AGE PINE SOME REALLY BIG AND OLD DOWN TO AROUND 30 YR OLD.
102	4129 - Mixed Oak	Sawtimber Well	13.4	100	81-110	2018: larger diameter older Oak and rp/wp with white pine and red maple poles in younger age class. Fairly steep ground with depressions and ski trail running on the ridges. Would be difficult to manage with the ski trail and slopes. Factor Limit 2008: older and larger oak and pine.
103	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	6.6	70	51-80	2018: Red Maple bottom and drain with spruce/fir/wp. Let stand grow in. Some spruce mortality. Thicker spruce/fir understory along east side. 2008: LOWER AREA WITH WET HARDWOODS. COULD MAKE NICE BROUSING AREA IN MIDDLE OF BEDDING AREA.
104	6112 - Lowland Aspen	Poletimber Medium	7.1	34		landlocked and blocked by river.
106	4133 - Aspen, Mixed Pine	Sawtimber Well	9.5	56	81-110	2018: QA is declining BA looks fine. If aspen were removed may not regenerate well due to browsing and remaining canopy. Would likely move stand toward WP. Consider harvest next entry period. 2008: Aspen looks fine at this point Scattered older pine and oak with younger age class grown in @ 46 years. Most of younger age is aspen.
107	6123 - Lowland Fir	Poletimber Well	7.1	55	81-110	River floodplain behind campground. Factor Limit for water quality
108	42210 - Natural Red Pine	Sawtimber Well	5.2	119	141-170	2018: Nice tall pine. Unique little stand. 2008: Most of stand is on very steep slope. Top part has been thinned. Could be treated with adjacent stand.
109	6127 - Lowland Pine	Sawtimber Well	8.9	135	111-140	2018: Campground. Stand looks fine. Aspen component is aging and starting to decline. May cause some issues in campground in future. May want to remove aspen if nearby. 2008: Large White and Red pine by campground and river. Forks campground.
110	6112 - Lowland Aspen	Poletimber Well	3.3	36	51-80	2018: Good growth on aspen. Some balsam fir mixing in and growing through. 2008: Small habitat aspen cc in bottomland. Good stocking. Unknown how this was accessed.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
111	6112 - Lowland Aspen	Poletimber Well	25.8	34	81-110	2018: TS# 040-80. TCR 1984. Cut all merchantable but no cedar. Good solid aspen stand with good height growth. Consider harvesting while it is still solid. May be fine to hold until next entry. Old skid trail along north edge of stand 115 leads to east part of stand. Looks like it may have a low wet area that it crosses. 2008:A few old pine and balsam but mostly a big aspen cut with good regeneration
112	6129 - Mixed Coniferous Lowland Forest	Sawtimber Medium	5.1	80	51-80	2018: Low stocked lowland mix with tag alder pockets. 2008:brushy lowland conifer mix
114	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	9.1	119	111-140	2018: Beautiful red and white pine in bottom with oak, pine and aspen on bluff and slope. Access limited by slope and private property. Corner found both ends of private line. 2008:steep slope and bottom along flowing water. Trespass. posted signs at bottom of bluff.
115	42290 - Natural Mixed Pine	Sawtimber Well	5.2	135	81-110	2018: Upland mixed pine. Tall old pine. Stocking is variable. 2008:Deer using area. SE part of stand is large pine that has been thinned. Some smaller balsam and white pine seeded in.
116	4319 - Mixed Upland Forest	Sawtimber Well	9.3	135	81-110	2018: Transition stand between lowland and upland mixes. Low pockets and large old white pine in stand. 2008:Large pine and oak along private boundary.
117	4126 - White, Black, N. Pin Oak	Sawtimber Poor	12.6	109	1-50	2018: Trenched 2012. Planted rp 2013. Stand harvested with scattered oak and pine left for mast and seed source. Planted red pine looks alright but there is fairly heavy oak competition in places. Also some pockets of aspen sprouting. red pine does look better where there is less competition. RP averaging 30' height. Should result in mixed stand.
118	4126 - White, Black, N. Pin Oak	Sawtimber Well	42.2	113	51-80	2018; TS# 032-90. TCR 1991. CUT ALL ASPEN,JP,RM+ ORANGE MARKED. Variable wp understory. Pockets of 20-30' trees but a lot of 5-10'. Most of this stand could have the oak canopy reduced to release understory. Could have retention areas where there are pockets of taller wp under story. Stocking of oak is variable. Most is lower quality. Patches of tall older rp. Little rp in understory although red pine exhibits good growth on this site. Consider some area to clear and plant red pine. East 1/2 of stand seems to have less wp understory. 2008: Oak is generally not good quality. Old oak and pine canopy converting to white pine. Thick whippy wp in places. Much damage from snow on wp regen. Could take out most canopy and let regen grow in. A good bit of red pine. Some good poles.
121	4133 - Aspen, Mixed Pine	Poletimber Well	33.1	38	51-80	2018: Cut 1980-81. Cut all merchantable oak,aspen and pine. Leave green marked. Good growth on aspen. scattered oak and pine retention from last harvest.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
122	4310 - Pine, Oak Mix	Sawtimber Well	17.8	107	111-140	2018: mix of older pine, oak and aspen with oak/pine poles grown in. Most is mature and could be re-started. Better site - looks like good pine ground and red oak looks good. Would have to fight aspen to get pine started but may be worthwhile. May be worked with stand to east. Not sure of access. 2008: 100 year old pine with younger age 50-60? grown in and mix of oak and maple. Could orange mark to get some old out and release younger age. Could go with the stand to the east. There are spots with enough aspen to get good sprouting. There is heavy deer browsing around here.
124	4126 - White, Black, N. Pin Oak	Sawtimber Well	12.0	109	81-110	2018: Low quality Oak over story with some aspen and pine mixed in. Heavy wp understory with some rp saplings. Consider reducing canopy oak to allow understory pine to advance. Ground lays good. Split off stand 199 to east from this stand. 2008: Low quality oak overstory with thick whip like wp regen on ground. Older oak and pine and 50-70 yr class in canopy.
126	42290 - Natural Mixed Pine	Sawtimber Well	6.2	70	111-140	2018: nice natural looking pine in bowl. Mixed sizes. 2008: looks fine for now. let it grow in and look at next inventory cycle.
128	4124 - Red with White Oak	Sawtimber Well	13.9	94	81-110	2018: Bigger oak scattered with small logs and poles grown in. Lower quality-looks stagnant. Consider cutting and planting red pine or may get reasonable natural regeneration from oak and red maple sprouts. If planted would likely need to control rm sprouting. Area full of smaller burnt pine stumps. Looks like second growth pine that was harvested and then it burnt. Oak grew in after last fire. 2008: Pole/small log sized oak. Density is keeping white pine out of understory. Look at next time. Low quality.
129	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	25.6	140	111-140	2008: low conifers in bottom and large redpine aspen and a little oak on slope to bottom. Rich Conifer swamp ERA surveyed by MNFI
130	4126 - White, Black, N. Pin Oak	Sawtimber Medium	35.3	90	51-80	2018 Good amount of wp salplings and seedlings in understory. Some rm and patchy aspen regen. Let understory develop and fill in. May want to get most oak over story off next entry. TS# 033-2000. TCR 2001 Cur rm, aspen and jp+ orange marked. 2008: Aspen and rm have been cut out and some oak as well. Aspen regen is pretty patch and browsed. White pine pockets were left and stand has not filled in much more yet. Cut in 2000.
131	4124 - Red with White Oak	Sawtimber Poor	25.0	107	1-50	2018: Area inside and north of ORV trail split off into new stand along with pockets of aspen regen within this stand that were not planted as well. Regen check 2017. 581 tpa red pine. Competition from cherry, aspen, maple, oak. Recommend spraying herbicide (2108 yr) in planted areas to keep woody competition in check and re-plant following year. Most rm and aspen has been browsed and kept in check by deer but if it got past browse level it would impact rp growth. 2017: Chopped areas without heavy aspen regen. Trenched and planted rp 2016. TS# 077-10. Retained green marked oak and retained all red pine and harvested remaining to 2" dbh. Some white pine left 4" dbh and less. Expect regeneration of aspen, oak, rm, wp. Harvested summer 2012.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
132	4129 - Mixed Oak	Sawtimber Well	12.9	107	51-80	2018:Larger low density oak with oak/rm/wp poles growing through. Red maple poles starting to get some volume. Some wp poles working through to canopy. Let pole sized rm put on more volume. Look at harvest next entry. 2008:Low density oak with smaller poles grown in @30-40 yr old. Lots of rm sprouts and wp growing in. Some younger oak.
133	4126 - White, Black, N. Pin Oak	Sawtimber Well	16.7	102	81-110	Park-like stand along river.
134	4133 - Aspen, Mixed Pine	Sawtimber Well	12.0	80	81-110	. 2018: Stand factor limited for water quality along boardman river. Aspen is declining.
135	6139 - Mixed Lowland Forest	Poletimber Well	3.7	90	111-140	Steep slope down to creek in bottom . Red pine aspen and oak on slope with spf in bottom with some birch.
136	42290 - Natural Mixed Pine	Sawtimber Poor	43.7	75	1-50	
137	4124 - Red with White Oak	Sawtimber Well	5.1	117	51-80	2018: New stand. Old oak with younger age grown in (65)?
138	4124 - Red with White Oak	Sawtimber Poor	93.9	100	1-50	2018: Burned first time 2015 Good results at that time but at this inventory it appears that we should burn again soon. Some areas are keeping open and developing grasses but other have thick rm and oak sprouting. Retention pocket left in south end. 2008: Cut back to barrens look with large well formed oak and pine retained in canopy. Must maintain with periodic prescribed burns.
139	4126 - White, Black, N. Pin Oak	Sawtimber Well	27.9	90	81-110	2018: Lower quality oak logs and poles with light wp understory. This stand would be relatively easy to harvest and re-plant. Could leave retention strip along west side and other harvest or could wait for this other stand to grow in on west side. 2008:Most oak is low quality. Scattered older oak an a little pine with a 70-8- yr class grown in. Some spots have thick wp 10-30 ft tall but most areas not so much. Could cut open and weave rp or leave for now. A little aspen in stand.
140	4133 - Aspen, Mixed Pine	Poletimber Well	34.4	38	1-50	2018: Harvested 1981. Cut all merchantable but no green marked. Looks like all pine may have been left in last harvest along with scattered oak retention. Mixed sizes of pine from logs to saplings . Aspen is patchy with good growth and other areas are heavier to wp poles/saps. 2008: 28 yr old cc with mix of aspen, rm, wp, and a little oak.
142	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	11.3	70	111-140	2018: Mixed sizes of wp logs,poles, saps with oak, aspen and rp. Stocking is alright. Let stand grow in and look at next entry. WP saplings filling in canopy gaps. 2008:Scattered old oak and pine with 50-60 yr class grown in. Most is wp and could probably not be economically thinned.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
143	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	20.6	121	81-110	2018: OAK WITH MIXED AGE ASPEN. WP UNDERSTORY WITH SOME POLES GROWN IN TO CANOPY. MOST OAK IS OF MERCHANTABLE SIZE. THIS COULD BE FINAL HARVESTED OR LEFT TO PUT ON MORE VOLUME. RISK OF SOME OF THE OLDER ASPEN FALLING OUT OF STAND IF LEFT. 2008:MIXED UP STAND WITH DIFFERENT AGES AND SPECIES. SOME AREAS WITH RM AND WP REGEN WHILE OTHER SPOTS HAVE MORE OAK AND ASPEN - MIXED AGES.
144	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	6.9	58	111-140	2018: Mixed pine with some aspen, oak and red maple. Some scattered large older wp and rp. JP is falling out of stand. More in south end. Heavier to WP/RP in north end. May want to mark the N end but not overstocked in most areas. Some WP in understory in canopy gaps. May fill in with WP if opened up. Consider getting jp and aspen out if working nearby stand. 2008: Could get jp out and mark crop tree in other pine or just spec. None of this pine is managed yet.
145	4126 - White, Black, N. Pin Oak	Sawtimber Well	14.6	110	111-140	2018: Aspen clones and scattered aspen through stand. Aspen is declining. This stand could be final harvested. Thinning would create new age class of rm and aspen. May be best to re-start stand and let aspen clones expand. Oak on this site is slightly above average. WP is trying to come into stand and there are some thick patches or regen 10-15' tall. Most is lower density in understory. Nice rolling ground. Adjacent timber harvest on private land. Seems that they stayed on their property but not verified 2008: there are some decent oak poles and small logs. It would be fine to grow oak here. Could ctr better poles.
146	42200 - Natural White Pine	Sawtimber Poor	34.5	80	1-50	Planted 2014. Herbicide sprayed with skidder Sep 2017 to control deciduous trees-mainly cherry and quaking aspen. Stocking is not good in many areas for the red pine. Natural wp seedlings mixed in. Heavy grasses. Plan to re-plant 2018 to bring stocking up to 900TPA. Re-planted in 2018. Planted old well pad and other small openings with this stand. These were merged into this stand. Stand 149 in center of this stand was not planted to maintain grassy opening and use as decking area. Replanted in spring 2018.
148	4126 - White, Black, N. Pin Oak	Sawtimber Well	34.3	125	81-110	2018: Oak over story with RP,WP, Aspen, RM. Good bit of WP understory of various sizes with some RP poles. West finger is more pine with oak and some large old aspen. Could still benefit from canopy gaps or could let this side develop. Consider removing most oak to release pine understory. Could keep most pine. 2008:Poor quality oak with some pine and aspen also in canopy. wp and rm coming in below could open up and plant some rp to go with pine or leave alone to let wp develop.
150	4126 - White, Black, N. Pin Oak	Poletimber Medium	6.9	38	1-50	2018: TS completed 1983. Cut all merchantable aspen,jp,rp,oak and rm 2008:LOOKS LIKE IN LAST HARVEST THE YOUNG OAK AND BIG PINE WAS LEFT. TWO STORIED WITH SCATTERED RP SUPERCANOPY AND YOUNG OAK. SECOND LAYER IS OAK SPROUTS AND SMALL JP SEEDLINGS.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
152	4126 - White, Black, N. Pin Oak	Poletimber Well	11.2	106	111-140	2018: This stand was formed from remnants along trail and lakeshore after harvest of main stand Factor Limit for recreation and riparian concerns. 2008: average quality oak. LARGE AREA OF OVERSTOCKED STAGNANT OAK POLES. A LITTLE ASPEN AND A FEW SCATTERED RP THAT GREW WELL. GOING TO WP.
153	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	15.0	80	81-110	2018: Mixed sizes of WP, oak and aspen. Probably best to let this grow in and look at next entry. White pine crop trees are about 12" dbh. Some younger pockets of aspen along with older. Older scattered oak with poles and small logs mixed in. 2008: Large wp, oak, aspen and rp with lots of younger wp and red maple -pole sized grown in
154	4131 - Aspen, Oak	Poletimber Well	10.7	60	81-110	2018: Mixed ages of aspen and oak. Large scattered oak with poles and small logs grown in. Could harvest this entry with oak and pine retention. More older age aspen than younger but all would be merchantable. 2008:MIXED UP ASPEN AGE CLASSES GROWN IN AROUND SOME OLDER OAK AND PINE.
155	42290 - Natural Mixed Pine	Sawtimber Well	15.9	112	141-170	2018: Existing pine is getting pretty large. May want to harvest the flat part of this stand and re-plant to red pine. Good pine ground. Possible trespass along west line. Some areas have wp understory but most is pretty clean. Retention along Supply Road? 2008: Thinned 1981. Nice mix of older pine. Keep as is to keep white pine regen from advancing.
156	42290 - Natural Mixed Pine	Sawtimber Well	35.4	91	51-80	2018:Nice larger wp and rp with wp sapling under slowly filling in gaps. Some pockets of aspen but it looks like most aspen was browsed out of stand. 2008:jp aspen and rm cut in sale 08-00. TCR 2000. Aspen regen in places but getting browsed heavily. Patches of younger pine were cut around. left all wp rp and oak? May have marked some pine as well in last sale.
157	4126 - White, Black, N. Pin Oak	Sawtimber Well	10.9	117	1-50	2018: Agree with previous assessment. Consider removing most oak from canopy. Stand may fill in with white pine or could possibly cut and plant red pine with part of stand 170. Currently has medium stocking of scraggly white pine in understory. Would need chopping and herbicide after harvest to control white pine and red maple/aspen. 2008: poor quality open grown oak overstory with spindly thick wp growing in. Lots down in snow. Some rp and wp in canopy. Unproductive use of space at this point.
159	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	19.8	117	81-110	2018: Split this stand off from stand 170. Oak and pine mix with wp under. More pine component in this stand. 2008: Mixed stocking and diameter of oak overstory with some pine mixed in in areas. Not good quality oak and wp is coming in thick in places but it's spindly and being knocked down by the snow. Could green mark and take most oak, rm and aspen put and let it go back to pine.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
160	4311 - Pine, Aspen Mix	Poletimber Well	10.6	58	111-140	2018: Mixed pine with aspen, oak and red maple. Mixed age classes but pole size is moving into canopy level. This stand could possible benefit from a thinning but may do well if left to continue to grow in. 2008: Still has the older age class but a lot of 50 yr old stunted looking pine growing in under canopy like a 2nd level. Maybe this was understory planted? Thick stocking in pole size but thinning would be damaging. May need to let grow out of this but it's not growing much. More aspen in 70 year old class.
161	4130 - Aspen	Poletimber Well	6.3	34	1-50	Some big oak left for retention in last cut. Cut in 84. Aspen, oak,wp,rp,jp and rm regen.
162	4126 - White, Black, N. Pin Oak	Sawtimber Well	59.5	96	111-140	2018: Average oak. NOT A LOT OF CROP TREES. Oak with oak seedlings and white pine under-story. Older aged large crowned oak scattered through stand along with some older pine. Understory varies. East of Rennie Lake Road has lower over story stocking and more oak seedlings on the ground. 2008:Old savannah with grown in oak, rm and pine. wp coming in with layer of broused oak. A little rp regen. 86 year old oak with scattered old trees from earlier savannah. Heavy browsing on oak seedlings. Illegal quad trail from sub-division on west side. A little jack pine in cold air drains and a couple pockets of aspen.
163	4133 - Aspen, Mixed Pine	Sawtimber Well	7.0	80	51-80	New aquisition from land conservency. Corridor along river. Mix of aspen, lowland brush and aspen pine. Factor limit for water quality as this is on the river floodplain.
164	4126 - White, Black, N. Pin Oak	Poletimber Medium	28.7	25	1-50	2018: Well stocked poles/sapling oak stand left after harvest. Age is estimate Seems like mixed ages as gaps filled in. Timber sale # 610031101. TCR 9/2013. Stand was deteriorating jack pine and poor formed oak/red maple. Harvested down to 2" dbh but left all oak and red pine 6" dbh or less. Also green marked some oak and pine to retain in larger diameters. A lot of young oak sapling/poles made it trough harvest and will form part of the new stand.
166	42200 - Natural White Pine	Sawtimber Well	25.3	65	111-140	2018: Mixed age wp with some rp. Let grow in for now. 2008: PARTS OF THIS STAND WOULD BENEFIT FROM THINNING OTHER PLACES ARE MORE OPEN. SOME OLDER PINE
168	4310 - Pine, Oak Mix	Sawtimber Well	25.0	89	111-140	2018: Could cut and plant this to red pine. The pine on this ground looks good. Pipeline markers through stand but no evidence on ground other than markers. Some areas have thicker wp10-20' height in understory. Good bit of rmsaps and poles like this was cut out 25 yrs ago. Ground lays good for managing pine. Would likely need control of competition. Could harvest and manage with parts of stands 155 and st176. 2008:Old pine and oak @ 125 yr with younger age class grown in. Both counted in canopy. Let younger age class grow in for now or could mark some older and release younger age class.
169	4310 - Pine, Oak Mix	Poletimber Well	9.4	36	81-110	2018: Low density larger oak and pine with white pine and red maple poles grown in- around age 35 (estimate) Mixed ages in this stand. Most trees in younger age class have room to grow. Let stand develop. Thick wp saps in places. 2008: SOME OLDER PINE SCATTERED AROUND BUT MOST IS 50-60 YRS. MAY BE ABLE TO THIN AND RELEASE CROP TREES.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
170	4126 - White, Black, N. Pin Oak	Sawtimber Well	29.6	117	81-110	2018: Lower quality oak with white pine understory. Would be good to cut and plant red pine. Ground lays good and some areas have light understory stocking. Aspen and red maple would need herbicide control and stand may need to be chopped prior to planting. . Some areas are getting into heavier wp understory but most could be eliminated by harvest. May need to chop to reduce wp saplings. Could we burn this and plant if slash is left after harvest. Section in NE around trails could be retention area. 2008: Mixed stocking and diameter of oak overstory with some pine mixed in in areas. Not good quality oak and wp is coming in thick in places but it's spindly and being knocked down by the snow. Could green mark and take most oak, rm and aspen put and let it go back to pine.
171	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	13.0	135	141-170	Steep slope to river and bottomland. Pine and aspen on slope.
173	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	28.2	75	111-140	2018: Red pine is really good in here but all the understory is white pine with patches of poles and saplings under. Could take out most mature pine and leave poles and saps with some large seed trees. Would be better if we could get this cleared and plant red pine but would take cutting a lot of white pine poles and saps. Some big old pine scattered around in stand and some jack pine left but it is falling out. 2008: scattered older pine and oak with 65-70 yr class grown in. Also mixed ages in places with what looks like a 30 yr class of pine grown in. Red pine looks really good and jack pine is declining.
174	4117 - Mixed N. Hardwood - Pine	Sapling Medium	27.3	20	Immature	2018 TS# 021-90. TCR 1998 Cut to 2" dbh. Aspen, oak and mixed hwd harvested. Stand 178 was part of this sale. Bushy, low density jp and wp with cherry brush and some patched of oak and aspen. Consider eliminating woody stems from this stand and planting red pine. West part of stand has too much growing in but the east part may be able to be sprayed and planted. 2008: Most regen is cherry. Near or in whitetail deer habitat project area.
175	4199 - Other Mixed Upland Deciduous	Poletimber Well	104.9	35	51-80	2018: Larger older oak and pine scattered in stand with younger age classes grown in. Has old barrens look. Aspen is poor quality in places as is most oak. Good bit of oak seedlings in places. More aspen on west side. Not sure on age of aspen/rm. Mixed up ages 40-65. Could keep for this entry and let stems put on more volume. Could eventually put back to barrens type of could cut and plant rp. 2008: look at next time to restore oak barrens with stand 169. Old oak and pine is there but the younger age class in not very merchantable at this time. It could possible be sold as chip job with a 2" cutting spec. Looks like rm and aspen was cut out but not consistent. Younger oak as well in spots. Another age class in canopy? Hard to tell history of this stand. Perhaps some old wildlife prescription or a logger selection.
176	4310 - Pine, Oak Mix	Sawtimber Well	12.5	89	111-140	2018: This stand could be cut and planted. Most pine is mature and ready to harvest. Good pine ground. Some pockets of wp saplings but some of the stand is pretty clear in understory. Some bigger/older pine scattered around in stand. This stand could possibly be thinned but don't want to start second age of red maple/aspen/ oak. It would be better to get this all at once and re-plant. Could be treated with stands 155 and 168. Could leave retention along supply road. 2008: new acquisition signs up from previous owner



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
177	4310 - Pine, Oak Mix	Sawtimber Well	26.4	80	111-140	2018: Good red pine. large older red and white pine scattered through stand. Jp pocket in SW corner. Pockets of oak seedlings. Consider re-starting stand. Harvest and re-plant red pine. 2008: NICE NATURAL PINE OAK MIX SOME OLDER OAK PINE 70-8- YR CLASS GROWN IN
178	4319 - Mixed Upland Forest	Sapling Poor	26.7	7	Immature	2018: Red pine looks alright. Looks like this stand should be sprayed to control cherry and red maple. Red pine planted 2011. 2018 TS# 021-90. TCR 1998 Cut to 2" dbh. Aspen, oak and mixed hwd harvested. Stand 174 was part of this sale 2008: This is on margin of forested /non forested. Most of what grew in is black cherry. Everything else is badly browsed. A little rm is getting through.
179	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	7.3	75	81-110	2018: JP is still holding in but some mortality. Aspen is dropping out of stand. Small stand around depression. Could get jp and aspen if close by or could just let it drop out. 2008:Nice rp 65-70 yr old. Some older scattered rp and also some scattered younger regen. Aspen and jp should come out as well as most rp
184	4131 - Aspen, Oak	Sapling Poor	10.1	7	Immature	2018: Scattered log/xl oak and pine retention from last harvest. New regrowth counted in canopy.
185	42290 - Natural Mixed Pine	Sawtimber Poor	11.0	43	51-80	2018: TS# 61-090-10. TCR 2011. Cut all aspen,rm,jp and marked oak and pine. Expected good aspen regeneration. 2008: JACK PINE GOING OUT JP NOT BAD IN PLACES. COULD CUT BACK TO SEED TREES AND MAST TREES AND WEAVE RP IN. SOME RP SEEDING IN NATURAL FROM OLD TREES. NW FINGER NOT REALLY THE SAME.
186	4122 - Oak, Pine	Sawtimber Poor	40.2	80	1-50	2018: Planted red pine is staying in stand but some areas have thick rp/aspen sprouts. Some oak stump sprouts. Consider spraying to set back red maple/aspen. 2017: ts# 079-10. Harvest 2011. Cut all but green marked retention. Planted 2013 with red pine after harvest. C61-559. 2008: Large wp, oak, aspen and rp with lots of younger wp and red maple -pole sized grown in
187	4126 - White, Black, N. Pin Oak	Sawtimber Poor	42.1	106	1-50	2018: Red pine seedlings look good in most areas. Some places have heavier oak and maple sprouts but most trees surviving with good growth. Red Pine Planted 2013. Trenched 2012
188	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	2.7	104	51-80	Stand along river corridor. Mix of cedar, wp, birch, red pine
189	6112 - Lowland Aspen	Sawtimber Poor	9.4	34	1-50	2018: TS# 040-80. West end has a pocket of aspen but the rest is scattered through. This stand looks like it can be quite wet. May have been harvested during freeze in or very dry season? Maybe this part was never harvested? TCR 1984. Cut all merchantable but no cedar. 2008:lowland mix where aspen was cut off higher ground. Stand 75 seems to have generated from this harvest which is the higher ground aspen.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
190	42200 - Natural White Pine	Poletimber Well	6.3	104	81-110	2018: East part is lower density large white pine with white pine poles and seedlings in gaps. West side is fully stocked white pine logs. Un-official camping spot with river access.
191	4126 - White, Black, N. Pin Oak	Sawtimber Medium	22.9	106	51-80	2018: Low -medium stocked oak log MULTI PART stand with red maple sprouts and some oak and wp in understory. Not a lot of understory development at this time other than the red maple.
192	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Poor	6.7	21	1-50	2018: TS# 123-90. TCR 1992. Cut to 2" but no oak or green marked. Split new stand off from stand 44. This area was likely heavier to jp when harvested.
194	4124 - Red with White Oak	Sawtimber Poor	14.2	107	1-50	2018: This stand split off from stand 131 which was chopped and planted after harvest. Sparse regeneration in this new stand after harvest. Mix of aspen, rm, with some pine and oak. TS# 077-10. Retained green marked oak and retained all red pine and harvested remaining to 2" dbh. Some white pine left 4" dbh and less. Expect regeneration of aspen, oak, rm, wp. Harvested summer 2012.
195	42220 - Natural Jack Pine	Sawtimber Medium	2.7	66	1-50	2008: Same as stand to south in C52. Small strip of JP with wp/rp/rm. along powerline.
196	4130 - Aspen	Sapling Well	5.2	38	1-50	Valley wit Small Q Aspen. frost pocket
197	4311 - Pine, Aspen Mix	Poletimber Poor	4.3	38	1-50	Valley with Small Q Aspen and bushy jp. . frost pocket
198	4199 - Other Mixed Upland Deciduous	Poletimber Poor	19.4	35	1-50	2018: split this stand off from st 175. Lower density and canopy coverage. Looks like part of old barrens area.
199	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	8.7	110	51-80	2018: Split this stand off from stand 124. Scattered old wolfy oak with some wp/rp/rm/oak forming in understory. Good bit of 12-14" dbh wp with room to grow. This stand could be cut and planted or could let this stand put on more volume and look at next time. Stand to east would then have time to grow in as well. 2008: Low quality oak over story with thick whip like wp regen on ground. Older oak and pine and 50-70 yr class in canopy.
200	6132 - Mixed Lowland Forest with Cedar	Poletimber Poor	6.0	90	81-110	2018: Lowland area with low density canopy and tag alder. Storm damage took down much of the old aspen, cedar and other larger trees. Not much regeneration at this point.
201	6120 - Lowland Cedar	Sawtimber Well	3.3	110	51-80	Cedar along river
204	6123 - Lowland Fir	Poletimber Well	11.8	70	111-140	Along river

S
t
a
n
d

Traverse City Mgt. Unit

Report 7 – Forested Stands

Compartment: 47
Year of Entry: 2020



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
205	6112 - Lowland Aspen	Poletimber Well	6.3	17	51-80	2018: Cut this stand out of stand 94. Most of this stand was harvested and has decent aspen regeneration. Large scattered white pine and a pocket of bf. Couldn't find harvest record. Age estimated at 17.2008: 2 ACRE CLEARCUT CONTAINED WITHIN STAND BUT TOO SMALL TO STAND ALONE. GOOD ASPEN REGEN IN CUT WITH SCATTERED OLDER PINE.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	6239 - Mixed Emergent Wetland	24.0	No	Muncie Lakes
5	500 - Water	7.2	No	Muncie Lakes
6	500 - Water	1.7	No	Muncie Lakes
7	500 - Water	5.3	No	Muncie Lakes
10	6239 - Mixed Emergent Wetland	20.4	No	Muncie Lakes
11	6225 - Bog	1.2	No	
12	3104 - Degraded	1.7	No	Previous inventory labeled this site a G with an X understory.
14	500 - Water	0.9	No	Muncie Lakes
18	500 - Water	2.6	No	
20	3301 - Low Density Deciduous Tree	1.4	No	
26	6239 - Mixed Emergent Wetland	0.6	No	Was typed as water during the last inventory.
35	629 - Mixed non-forested wetland	2.6	No	goldenrod, sedge, jp snags.
39	3105 - Mixed Upland Herbaceous	1.9	No	2018: Some bushy jp seeded in 2008 WLD At least 4 dead apple trees in cages. Some spotted Knapweed.
40	122 - Road/Parking Lot	4.1	No	
49	3105 - Mixed Upland Herbaceous	2.3	No	Autumn olive planting from previous year-of-entry.
51	3105 - Mixed Upland Herbaceous	1.2	No	Cladonia, moss.
52	629 - Mixed non-forested wetland	9.8	No	Typed as Lowland Shrub at time of last inventory with comments, "Flooded J4, now dead." Young tag alder, goldenrod, grass/sedge.
53	3105 - Mixed Upland Herbaceous	1.8	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
56	330 - Low-Density Trees	2.8	No	Last entry period this stand was classified as an O2. Little bluestem and sapling/pole jack pine, white pine, red maple.
57	330 - Low-Density Trees	4.6	No	2008: WLD: Autumn olive planting from previous year-of-entries. Many of the AOs are doing well. Many were top killed in the past. Some little bluestem.
59	3202 - Autumn Olive/Honeysuckle	1.6	No	2008 WLD: Autumn olive planting for previous year-of-entry. Wire tree cages from failed apple planting.
60	3102 - Grass	0.6	No	Cladonia, asters, low growing rubus, goldenrod. This is in a bowl and has 2 trails transecting the stand.
66	31022 - Warm Season Grass	1.7	No	Cladonia, red maple, blueberry, sweetfern, white oak. This stand is in a bowl shaped depression. Two snowmobile trails run through this stand.
68	3301 - Low Density Deciduous Tree	4.7	No	2018: Low density trees on side hill. 2008: Snowmobile trail and NC trail. St. John's wort, sedge, blueberry.
71	6229 - Mixed lowland shrub	4.9	No	Goldenrod, tamarack
73	6233 - Wet Meadow	13.7	No	Minor trespass issue with fencing on State Land by owners of NE SE Sec. 5. yarrow, moss, golden rod.
76	500 - Water	1.4	No	Boardman River
77	310 - Herbaceous Openland	1.1	No	2008: WLD Moles, sedge, grass spp., hoary alysum, sheep sorrel, scattered white and red pine. LBS.
84	122 - Road/Parking Lot	1.1	Yes	
88	629 - Mixed non-forested wetland	9.3	No	
91	6229 - Mixed lowland shrub	13.5	No	Boardman River Corridor.
92	3301 - Low Density Deciduous Tree	7.0	No	2018: Low density oak and red maple. This stand is associated with stand 100 which is the thicker oak pockets. 2008: Fire scars. Low growing rubus, occasional juneberry, occasional BT aspen.
93	110 - Low Intensity Urban	12.9	Yes	
95	3103 - Rubus-Fern	5.3	No	Some sedge.



Stand	Cover Type	Acres	Managed Site	General Comments:
97	3201 - Sweet Fern	1.2	No	Old well pad. Near supply. Easy access other than small berm on access trail. Moss, sheep sorrel, poverty grass, witch hazel, black cherry, red maple, old ORV activity.
105	3301 - Low Density Deciduous Tree	1.0	No	
113	3104 - Degraded	1.8	No	Subsidence pit.
119	3303 - Mixed Low Density Trees	1.8	No	
120	3104 - Degraded	2.1	No	Well site. Surrounded by lowlands.
123	3301 - Low Density Deciduous Tree	1.9	No	
125	6239 - Mixed Emergent Wetland	4.1	No	Lowland conifer and shrub mix.
127	3105 - Mixed Upland Herbaceous	1.0	No	White oak, black cherry, spotted knapweed, St. John's wort.
141	3201 - Sweet Fern	1.6	No	Old well site. Hoary alysum,
147	110 - Low Intensity Urban	10.2	Yes	Pipeline ROW
149	310 - Herbaceous Openland	0.9	No	Goats beard, coreopsis, butterfly weed.
151	3104 - Degraded	1.8	No	Well pad.
158	330 - Low-Density Trees	5.0		This stand had Big tooth aspen before harvest with white pine. Was harvested but not planted due to expected aspen regeneration. Aspen did not regenerate well and then it was sprayed when stand 146 was sprayed to reduce deciduous sprouting. Some residual wp left from harvest and some wp seedlings. Strip along nw edge was planted initially in 2014 but not the drain or sw edge. Re-planted in 2018
165	31021 - Cool Season Grass	6.2	No	Lots of little bluestem! Asters and bird boxes.
167	3105 - Mixed Upland Herbaceous	3.7	No	2018 Autumn Olive concern in stand. 2008: Autumn olive seems to have died back but is now resprouting. Traces of little bluestem. Hoary alysum.
172	790 - Other Bare/Sparsely Vegetate	1.7	Yes	Bracken, SJW, SKW, hoary alysum, grass spp.
180	6239 - Mixed Emergent Wetland	2.0	No	Wetland in small kettle depression.



Stand	Cover Type	Acres	Managed Site	General Comments:
181	310 - Herbaceous Openland	1.5	No	Sheep sorrel, mullen, spotted knapweed.
183	3105 - Mixed Upland Herbaceous	1.1	No	Old stumps with fire scars. Trace of hawthorn and black cherry. Witch hazel and sheep sorrel.
193	330 - Low-Density Trees	19.7	No	
202	500 - Water	10.9	No	Boardman River
203	6229 - Mixed lowland shrub	1.9	No	2018: Low density quaking aspen with tag alder
207	122 - Road/Parking Lot	1.8	No	Supply Road
208	500 - Water	5.0	No	
209	500 - Water	1.3	No	Boardman River
210	500 - Water	1.9	No	Boardman River