

CADILLAC FOREST MANAGEMENT UNIT



COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 126 ENTRY YEAR: 2013

Compartment Acreage (GIS Acres): 2923 County: Wexford

Revision Date: 10/07/2011 10:24 AM

Stand Examiner: Joe Ventimiglia, Forester

Legal Description: T24N, R9W, Sec 1-4, 9-12

Management Goals: Management along the immediate vicinity of the Manistee River and its associated creeks will be to maintain the recreational and scenic value it currently offers. Forest management beyond the river valleys will focus on multiuse objectives of timber, wildlife, and ecological concerns.

Soil and Topography: Croswell, Graycalm and Tawas Varies from excessively drained soils to quite fertile loams. Variable soils and topography are found within the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: A patchwork of state and private land, mostly recreational in nature. One major development in the NW of section 2 and land fractionalization in the SE of section 2. At the time of inventory the remaining private land in section 11 was purchased by the State, which further consolidated the compartment. (Land transacted will be inventoried next YOY. The following parcels are recommended for acquisition: the NENW Sec. 3, the S1/2 of the SE sec. 4.

Unique, Natural Features: Two high-quality occurrences for pine barrens occur in the compartment: Walton Marsh site in section 4 and Walton site in sections 2 and 3. High-quality northern wet meadow occurs in compartment in sections 11 (NE 1/4) 2 (SE 1/4). Pine Barrens and dry northern forest to N. Bog to W Red-shouldered hawk reported nesting in NE 1/4 section 9, east of Old US 131 and north of Manistee River. Wood turtle also reported throughout stretch of Manistee River running through compartment. Bald eagle and loon to N, eagle also to S. Great blue heron rookery to W. Hill's thistle in sections 4 (NW 1/4) and section 2 (NE 1/4). An historical record for ginseng "near the Manistee River" is mapped in sections 4, 9 and 10. The state's only known occurrence for pussy-toes (*Antennaria parviflora*) occurs to the N in "sandy soil". Potential for dusted skipper and Great Plains spittlebug in grassy openings and young jack pine. Potential for ebony boghaunter, secretive locust in bogs, and wood turtle in Manistee River. Potential for massasauga, Blanding's turtle, box turtle, eagle, osprey, great blue heron rookery, red-shouldered hawk, goshawk, Hill's thistle, Alleghany plum, and pussy toes in grassy openings. Potential for ginseng, showy orchis, male fern, and goblin moonwort in mature hardwoods.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): Two prehistoric camps and one prehistoric earthwork were noted in past inventories.

Special Management Designations or Considerations: Walton Marsh Pine Barren (ERA) exists in the far western edge of the compartment. (Stands 1, 3, and 4) Natural rivers guidelines and best management practices will be taken into account along the Manistee river valley and associated creeks.

Watershed and Fisheries Considerations: The Manistee River, Fife Lake Creek, Walton Creek, and several smaller unnamed tributaries flow through Compartment 126. All are Designated Trout Streams. The Manistee River is stocked with brown trout by Fisheries Division in cooperation with the Walton Junction Sportsman's Club. Fife Lake Creek and Walton Creek host naturally reproducing populations of brook and brown trout. Natural Rivers standards should be followed for any treatments in the vicinity of streams. Also, in riparian zones along small streams like Fife Lake Creek and Walton Creek, management should be for species other than aspen.

Wildlife Habitat Considerations: Priority Wildlife Species: Those wildlife species associated with dry-mesic forested communities and riverine communities (Mark Knee 9/29/11).

Habitat Objectives: This compartment is located within the Highplains Ecosystem, Grayling Outwash Plain Subsection, LTA 5111 and 5211. Soils are characterized by deep, excessively drained sands. Historically, this area was composed of dry-mesic conifer forests. Fire and windthrow were important disturbance events. Presently the area is composed of dry-conifer, dry hardwood, and aspen. The Manistee River, which flows along the south edge of the compartment is a major travel corridor for many wildlife species and an important deer wintering area. Wildlife habitat objectives are to continue to manage the Manistee River corridor for the maximum diversity of wildlife species. Hill's thistle occurs in compartment along with Pine Barrens. Manistee and Fife Lake Creek have some steep banks with natural mixed pine stands.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and coarse textured glacial till in the northeast corner. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum in other areas of the State. A gravel pit is located in Section 4 and gravel potential is considered good. This area lies eight miles southeast of the prolific Guelph (Niagaran) reef trend. There does not appear to be any potential for reefs in this area. This area is not currently leased for oil and gas, but has been nominated for the May 2011 oil and gas lease auction.

Vehicle Access: Access into sections 12 is uncertain. State land within this portion of the compartment has been reached in the past as a result of private landowner's permission. Efforts should be made to secure a permanent easement at the end of Seeley Road in Section 1. A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. As future timber sales take place state woods roads and two tracks determined to be in excess of our access needs will be blocked as sales are completed in an effort to minimized vehicle and ORV damage.

Survey Needs: Large portions of compartment recently surveyed by MDNR. Corners need to be found in the NENW of Section 4 for timber sale preparation concerns.

Recreational Facilities and Opportunities: Hunting, fishing and canoeing opportunities are abundant. The North Country Trail runs through this compartment along the Manistee River. The snowmobile trail runs along the Northwest edge of the compartment. A MDOT rest area is also located in the compartment along US 131 near the Manistee River Bridge.

Fire Protection: Local roads and forest roads provide access to most of the compartment. Some areas near rivers and drainages would provide access problems for fire suppression equipment. Private holdings would be an urban interface concern during a wildfire. Most fuel types will not support crown fires. 9-01-2011
BET

Additional Compartment Information:

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**

- ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
- **The following information is displayed, where pertinent, on the attached compartment maps:**
- ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential old growth**



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	0	0	74	19	98	90	41	12	14	0	0	0	0	0	0	349
Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Cedar	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
Herbaceous Openland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Jack Pine	0	0	0	0	0	36	67	0	0	0	0	0	0	0	0	103
Low-Density Trees	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Lowland Aspen/Balsam Poplar	0	0	0	0	26	39	25	0	0	0	0	0	0	0	0	90
Lowland Conifers	0	0	0	0	0	0	0	6	0	0	30	10	0	36	36	118
Lowland Deciduous	0	0	0	0	0	34	19	33	0	13	0	0	0	0	7	105
Lowland Mixed Forest	0	0	0	0	0	0	123	7	0	25	0	0	0	0	65	219
Lowland Shrub	236	0	0	0	0	0	0	0	0	0	0	0	0	0	0	236
Marsh	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	203	0	0	0	84	0	6	0	13	0	0	0	0	0	307
Natural Mixed Pines	0	0	23	0	0	0	0	23	80	0	0	0	0	0	19	145
Northern Hardwood	0	0	0	0	0	0	0	0	74	0	0	0	0	0	19	93
Oak	0	0	0	0	0	0	0	0	84	26	36	0	0	0	0	146
Planted Mixed Pines	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
Red Pine	0	0	0	71	25	2	228	0	0	4	0	0	0	0	0	331
Sand, Soil	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	32
Upland Mixed Forest	0	0	0	0	0	0	225	45	0	43	0	36	12	0	125	487
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Water	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
Total	394	203	97	91	149	286	730	132	252	123	68	47	12	36	304	2923



Table 2 – Proposed Treatment Summaries

Cadillac Mgt. Unit
Year of Entry 2013

Compartment 126
Total Compartment Acres: 2923

Acres by Treatment Type

Commercial Harvest - 605	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	83	0	0	0	0	0	83
Jack Pine	4	0	63	0	0	0	67
Lowland Aspen/Balsam Poplar	25	0	0	0	0	0	25
Natural Mixed Pines	0	0	12	0	0	0	12
Northern Hardwood	0	38	0	0	0	0	38
Oak	0	0	33	0	0	0	33
Planted Mixed Pines	3	0	0	0	0	0	3
Red Pine	0	0	0	0	174	0	174
Upland Mixed Forest	0	0	170	0	0	0	170
Total	115	38	278	0	174	0	605



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	63126002-Cut	63.0	42220 - Natural Jack Pine	High Density Pole	55	Harvest	Seed Tree	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest; leave small retention islands scattered evenly to provide seed source and meet retention. Leave higher quality stems as seed <u>Specs:</u> source. Create roughly ten evenly spaced islands, at a 1/2 acre per island. (Mimic treatment applied in stand 50 to east.) Cut when ground is not frozen to promote scarification.</p> <p><u>Other</u> Proposed pine barrens MNFI adjacent. [may need survey along private, could not find corner in the snow] Good access. Protect young red pine <u>Comments:</u> plantations adjacent to stand. Maintain compartment boundary to west.</p> <p><u>Next</u> Trench and plant if regen does not meet regeneration guidelines. <u>Steps:</u></p>									
9	63126009-Cut	42.7	4310 - Pine, Oak Mix	High Density Log	82	Harvest	Seed Tree	4310 - Pine, Oak Mix	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest jack pine and any maple. Mark to cut poor quality oak, leave roughly 10- 30 BA of the nicer stems. (This will meet retention) Thin <u>Specs:</u> small red pine plantation within stand, leave 70 to 80 BA of quality stems. Have all scotch pine chipped in southern end of stand to remove seed source.</p> <p><u>Other</u> Harvest when ground not frozen to promote scarification. Continue to manage for oak/pine mix. Accept mixed regeneration. Focus on retaining <u>Comments:</u> mast and berry producing shrubs.</p> <p><u>Next</u> Monitor Regeneration and Oak Wilt potential. <u>Steps:</u></p>									
13	63126013-Cut	56.8	42110 - Planted Red Pine	High Density Pole	53	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Second thin to 100-120 BA depending on quality and density. Marker will need to adapt to variable nature of plantation. Leaving quality stems to <u>Specs:</u> remain. Residual should be higher where the quality pine is to the east and potentially lower in the west. Remove all scotch/jack regardless of merchantability.</p> <p><u>Other</u> Private to south and north. <u>Comments:</u></p> <p><u>Next</u> Make sure current road berms are maintained once harvest is completed. <u>Steps:</u></p>									
15	63126015-Cut	9.9	42110 - Planted Red Pine	High Density Pole	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Third row thin. (Producer will have to create rows in spots, as rows are not easily definable in pockets) Cut all aspen and jack pine. Set up sale <u>Specs:</u> with near by pine thinnings.</p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
20	63126020-Cut	3.8	42110 - Planted Red Pine	High Density Pole	53	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Third row thin, producer may have to watch in spots where rows are not as easily defined. Make sure legacy white pine in western edge are left <u>Specs:</u> out of sale.</p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
21	63126021-Cut	33.1	4122 - Oak, Pine	High Density Log	93	Harvest	Seed Tree	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Mark to cut remaining overstory oak. Leave roughly 10 BA of highest quality oak as seed source and to meet retention. Cut all jack pine in stand. <u>Specs:</u> Protect oak in understory.</p> <p><u>Other</u> Manage for pine/oak mix. Lump in with adjacent jack pine sale to east. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	63126025-Cut	16.0	42110 - Planted Red Pine	High Density Pole	50	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Third row thin to improve future stand health and growth. Stay clear of any small pockets where the plantation failed. Cut any aspen/maple in <u>Specs:</u> designated cut rows.</p> <p><u>Other</u> Relative easy access off 4rd. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
28	63126028-Cut	6.7	42110 - Planted Red Pine	High Density Pole	50	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Third row thin. Cut all jack in rows and what can be reached while cutting rows. Access good off two track. NCT trail should remain clear during <u>Specs:</u> operation. Do not thin small section north of NCT as rows no longer identifiable.</p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
40	63126040-Cut	127.6	4310 - Pine, Oak Mix	High Density Pole	52	Harvest	Seed Tree	4310 - Pine, Oak Mix	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest; leave small retention islands scattered evenly to provide seed source and meet retention. Leave higher quality stems as seed <u>Specs:</u> source. Create roughly twenty evenly spaced islands, at a 1/2 acre per island. (Mimic treatment applied in stand 50 to south.) Harvest when ground not frozen to promote scarification.</p> <p><u>Other</u> Stand is easily accessible through Glossinger rd. and though other two tracks within the site. Within proposed pine barrens BSA. Focus on <u>Comments:</u> retaining mast and berry producing shrubs.</p> <p><u>Next</u> Monitor Regeneration, trench and plant if needed. <u>Steps:</u></p>									
43	63126043-Cut	3.1	42130 - Planted Scotch Pine	High Density Pole	54	Harvest	Clearcut	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest. No retention as a result of scotch regen concerns. Too small to plant red or jack. Cut with adjacent pine thinning to south. Have all <u>Specs:</u> scotch chipped to remove seed source.</p> <p><u>Other</u> Manage for natural pine/oak mix. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
51	63126051-Cut	30.1	42110 - Planted Red Pine	High Density Pole	50	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Third row thin to improve quality and growth for residual. Cut with small scotch pine stand to north. Good Access <u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
59	63126059-Cut	4.1	42220 - Natural Jack Pine	High Density Pole	57	Harvest	Clearcut with Reserves	42250 - Pine, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest with adjacent aspen. Leave all red pine, white pine, and oak. This will meet retention. <u>Specs:</u></p> <p><u>Other</u> Private to north. Recent survey. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
60	63126060-Cut	22.6	4130 - Aspen	High Density Pole	56	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest, cut all Aspen, Maple, and Balsam Fir. Leave all Oak and White/Red pine as retention. Protect conifer understory. Final Harvest</p> <p><u>Specs:</u> with small adjacent stand to north.</p> <p><u>Other</u> Buffer Fife Lake Creek at appropriate distance in both the southern and western portion of the stand. Oak and pine will meet retention guidelines.</p> <p><u>Comments:</u> Access off roberts rd. Apply dead and down creation spec for grouse habitat.</p> <p><u>Next Steps:</u></p>									
82	63126082-Cut	24.5	6112 - Lowland Aspen	High Density Pole	55	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest, leave all Red/White pine and Oak. Winter only or dry summer harvest as result of lowland character in eastern portions of stand.</p> <p><u>Specs:</u></p> <p><u>Other</u> Leave pocket of timber east of small creek as retention. Avoid small bog in center of stand, is a separate non forested stand. Include in one sale</p> <p><u>Comments:</u> with stand to south. Apply dead and down creation spec for grouse habitat. Focus on retaining mast and berry producing shrubs.</p> <p><u>Next Steps:</u></p>									
90	63126090-Cut	11.8	42260 - Natural Pine, Mixed Deciduous	High Density Pole	72	Harvest	Seed Tree with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest leaving 10-20 BA of highest quality white pine where present. Leave all red pine/oak. Quality pine left will meet retention. Cut with</p> <p><u>Specs:</u> aspen stand to north.</p> <p><u>Other</u> Private in east border of stand. Accept mixed pine and aspen regen. Will be a aspen dominated stand in future. Apply dead and down creation</p> <p><u>Comments:</u> spec for grouse habitat. Focus on retaining mast and berry producing shrubs.</p> <p><u>Next Steps:</u></p>									
96	63126096-Cut	19.1	4116 - Mixed N. Hardwood - Aspen	High Density Log	71	Harvest	Single Tree Selection	4116 - Mixed N. Hardwood - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Thin down to 70-80. Mark for quality. Access from private is option, although stand could be reached from state. Road work and potential temp</p> <p><u>Specs:</u> bridge involved in access through state (Beaver Dam). Maintain proper distance from river bluff.</p> <p><u>Other</u> Near by pine was reached last YOY, likely dry summer or hard winter harvest. Private to west is in the process of being purchased by the</p> <p><u>Comments:</u> State. Recent DNR survey, stand was dropped in 2003 as a result of wet conditions. Focus on retaining mast and berry producing shrubs. Apply dead and down creation spec for grouse habitat.</p> <p>If the State buys this land this will eliminate the need for blue line and expand the stand?</p> <p><u>Next Steps:</u> Berm road on east side of beaver dam</p>									
97	63126097-Cut	9.4	4130 - Aspen	High Density Pole	58	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest all aspen and fir. Leave all oak as retention. Leave larger amounts of woody debris along the swamp edges. (Per Wildlife) Winter or</p> <p><u>Specs:</u> dry summer harvest only.</p> <p><u>Other</u> Wood would need to be forwarded to stand 107 for transport. Potential to wildlife cut if it cant be reached with equipment. Access difficult, this</p> <p><u>Comments:</u> stand and all other stands within this portion of compartment may need permission off private. Apply dead and down creation spec for grouse habitat. Focus on retaining mast and berry producing shrubs. There is a wetland complex next to this stand. These areas should be buffered. Consider winter or dry summer harvest.</p> <p><u>Next Steps:</u> Berm Skid Roads following sale to limit potential RDR's.</p>									



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
105	63126105-Cut	9.2	4130 - Aspen	Medium Density Pole	58	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest. Leave all oak. Cut in winter or dry summer only. Leave larger amounts of woody debris along the swamp edges.(Per Wildlife)</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u> Wood would need to be forwarded to stand 107 through stand 97.Small very rough two track connects stand 105 and 97along wet. Potential to wildlife cut if it cant be reached with equipment. Access difficult, this stand and all other stands within this portion of compartment may need permission off private. Focus on retaining mast and berry producing shrubs. Apply dead and down creation spec for grouse habitat. There is a wetland complex next to this stand. These areas should be buffered. Consider winter or dry summer harvest.</p> <p><u>Next Steps:</u> Berm skid roads to prohibit public access. (wet)</p>									
107	63126107-Cut	11.6	4130 - Aspen	High Density Pole	61	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest, leave all oak. Cut all paper birch and maple. Protect unmerchantable fir in understory. Access to stand will need to come off private off Selley Rd. Winter or dry summer harvest, cut with adjacent aspen to west and north.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u> Small fir in understory will be left to maintain conifer and meet retention. May need to fill holes in road in spots to access stand effectively. Focus on retaining mast and berry producing shrubs. Apply dead and down creation spec for grouse habitat.</p> <p><u>Next Steps:</u></p>									
110	63126110-Cut	4.8	42110 - Planted Red Pine	High Density Log	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Thin down to a residual basal area between 100 and 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private land owner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stand in this portion of the compartment.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p>									
115	63126115-Cut	21.4	42110 - Planted Red Pine	High Density Log	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Thin down to a residual basal area between 100 and 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private land owner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stands in this portion of the compartment.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p>									
120	63126120-Cut	2.6	42110 - Planted Red Pine	High Density Log	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Thin down to a residual basal area between 100 and 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private land owner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stand in this portion of the compartment.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
121	63126121-Cut	14.8	42110 - Planted Red Pine	High Density Log	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Thin again with other pine stands in this portion of the compartment. Aim for residual BA of 100 to 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private land owner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stands in this portion of the compartment</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
122	63126122-Cut	3.4	42110 - Planted Red Pine	High Density Pole	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Thin down to a residual basal area between 100 and 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private land owner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stand in this portion of the compartment.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
123	63126123-Cut	1.9	42110 - Planted Red Pine	High Density Log	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Thin down to a residual basal area between 100 and 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private landowner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stands in this portion of the compartment.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
127	63126127-Cut	1.5	42110 - Planted Red Pine	High Density Log	58	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Second thin down to a residual basal area between 100 and 120. Mark for quality, leaving the quality stems to remain. Access in this stand and adjacent pine stands will need to get permission from private land owner off Seeley Rd. Access from landowner was granted last YOE to reach these stands. Some road work may be involved to improve existing two track. Will need to be dry summer or cold winter to reach most stands in this portion of the compartment.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
Total Treatment Acreage Proposed:		555.5							

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62 63126062-Cut	30.6	4131 - Aspen, Oak	High Density Pole	49	Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Final Harvest roughly half the stand. Stay within 25% of treatment acres. Leave any cedar and oak (This will count as retention) Buffer Fife Lake Creek at appropriate distance.

Other Comment: Treatment objective of breaking up age class of aspen within this portion of the compartment. Consider winter or dry summer harvest as a result of crossing beaver dam road. Maintain gate at current location, as a result of interest of allowing only foot traffic in this portion of the compartment.

Next Steps:

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denies access
Treat if we acquire land the east. Very likley this will happen.

80 63126080-Cut	18.7	4111 - S.Maple, Hard Mast Association	High Density Log	79	Harvest	Single Tree Selection	4111 - S.Maple, Hard Mast Association	Cmpt. Review Proposal
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Prescription Specs: Thin to a residual of 70 to 80 basal area. Mark according to complete marker guidelines.

Other Comment: Cut if private to north is aquired. Make sure old private gate is maintained, interest in keeping this portion if the compartment limited to foot traffic only.

Next Steps:

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denies access
Cut if private to north is aquired by the State.

**Total Treatment
Acreage Proposed: 49.2**

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63102_OutOfY OE_1-Cut	7.2				Harvest	Clearcut	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription:</u> Final harvest plant to red pine								
<u>Specs:</u>								
<u>Other Comments:</u>								
<u>Next Steps:</u> Write FTP								
Total Treatment Acreage Proposed:		7.2						



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	High Density Sapling	20.0	25		Sapling 1 stick red pine plantation, with a small strip of natural pole jack pine along the northern border/snowmobile trail. [roughly 2 chains of jack, before it turns to plantation.] Pine growing slowly-dry site.
2	42220 - Natural Jack Pine	High Density Pole	63.0	55	51-80	Jack Pine dominated stand with mix of Oak on the eastern edge of stand. More open in the southern section. Limited regeneration. Private to south and northwest.
3	42110 - Planted Red Pine	High Density Sapling	7.7	27		Young semi failed red pine plantation, with scattered pole jack pine mixed in plantation. Very close to pole sized stand,
4	42110 - Planted Red Pine	High Density Pole	12.1	35	200+	Young red pine plantation. Fairly uniform just now pole size. Average dbh around 5 inches with most stems averaging 2 sticks. Eastern part of plantation is a little larger with stems averaging 3 sticks. Pine Barrens ERA.
5	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	10.8	54	51-80	Small strip of aging open aspen along west ditch of railroad tracks. Most aspen dead or falling apart. Small creek/drainage cuts up the middle, more prominent in south part of stand. Appears to be wet seasonally.
6	4310 - Pine, Oak Mix	High Density Log	36.4	103	51-80	Mixed relatively open stand with scattered large diameter oak and jack pine/red pine filling in between the oaks. More open to the southwest portion. Red Pine log sized, jack pine all pole. Private to south and 131 to east. Snowmobile trail traverses stand, railroad borders west edge. Advanced oak regen in understory spotty.
9	4310 - Pine, Oak Mix	High Density Log	42.7	82	51-80	Semi open medium to low quality jack pine and oak. Scattered rows of planted scotch and pole red pine mixed in stand. Scotch in rough shape, red in better shape. 131 borders stand to west with private to north and south. Variable density with open pockets present. Scotch concentrated to south.
10	4122 - Oak, Pine	Medium Density Log	2.8	99	51-80	Small pocket of large crowned open grown oak and mature jack pine. Stand is kinda open and deteriorating. Fairly thick oak regen.
11	4124 - Red with White Oak	Medium Density Log	17.3	81	1-50	Stand was shelterwood treated last YOY. Quality log oak overstory, with handful of white pine. Aspen, red maple, and cherry in the understory.
12	42220 - Natural Jack Pine	High Density Pole	17.6	49	51-80	Variable size jack pine with road and power line splitting the stand. Average 4 to 5 stick pine. Oaks in understory. Private borders to the north and east. Small openings in stand.
13	42110 - Planted Red Pine	High Density Pole	56.8	53	141-170	Pole/Log red pine plantation 3rd row thinned two YOY's ago. Quality red pine in eastern portion, with rows of scotch pine mixed in to the north. Scotch mostly dead with few still standing. Variable density overall, with a few openings in the middle of the stand filled in with Jack pine.
14	4130 - Aspen	Low Density Pole	2.5	36	1-50	Open stand with clones of low quality aspen filling in. Cherry scattered in as well. Poor soils? Frost pocket?



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	42110 - Planted Red Pine	High Density Pole	9.9	53	141-170	Pole sized red pine plantation, some log sized stems. Rows not very noticeable in majority of stand. Jack pine/oak mixed in. Appears to be decent site for pine. Some openings in plantation (old landing?)
17	42250 - Pine, Oak	High Density Sapling	22.5	16		Cut in 1994, stand was trenched and has regenerated to a mix of jack pine, aspen, and oak. Thick regen 10-20 feet tall. Stand should grow to be a nice pine/oak mix. Jack pine dominate.
19	4199 - Other Mixed Upland Deciduous	Medium Density Log	12.9	83	51-80	Mix of log oak and scattered red maple stump sprout origin Log/poles. Stand is relatively open and flat. Stand is less open near private to the east. Power lines and road split stand. Few aspen mixed in on western edge.
20	42110 - Planted Red Pine	High Density Pole	3.8	53	171-200	Well stocked pole sized plantation, with some log sized stems. Rows roughly definable. Western edge of stand is a small pocket of legacy white pine. [In small drainage].
21	4122 - Oak, Pine	High Density Log	33.1	93	51-80	Low stocked log oak stand with considerable pole jack pine component. Borders Two road to north. NCT cuts through east portion. Large open grown oak showing signs of age with small sap and pole oak filling in. Some white pine in understory as well. Proposed Pine Barrens BSA. Very small pocket of legacy white and red pine in far southern tip.
22	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	31.7	Uneven Age		Lowland mixed stand with humucky ground and seasonally wet depressions. Borders a red pine plantation and past management activities.
23	4311 - Pine, Aspen Mix	Medium Density Pole	8.0	53	51-80	Semi open pole white pine/aspen mix. Variable size with a few over mature aspen scattered. A few legacy red pine in stand.
24	4130 - Aspen	High Density Pole	11.9	38	1-50	Young pole sized aspen stand, bordering private to the north. Some of the aspen in rough shape.
25	42110 - Planted Red Pine	High Density Pole	16.0	50	111-140	Medium variable quality red pine plantation. Pole stand with no evidence of past thinnings. Crowns need space to put on diameter. Rolling topography.
26	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	19.8	5		Harvested last YOY. Large diameter white pine still standing, with a mix of red maple, aspen and jack pine filling in. Super canopy pine at roughly 10 BA.
27	429 - Mixed Upland Conifers	High Density Log	32.3	Uneven Age	51-80	Variable mixed white pine/aspen dominated stand along Manistee river bluff. Pockets of failed red pine plantations scattered in northwest portion of stand. Aspen of variable age with young aspen to north and mature aspen closer to the river. North Country Trail traverses stand near river. Scattered legacy pine in stand.
28	42110 - Planted Red Pine	High Density Pole	6.7	50	141-170	Small good quality red pine stand planted in 1961. Better quality then plantation to the east. Rows easily followed, except in small northern tip where jack is more mixed in.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	42290 - Natural Mixed Pine	High Density Pole	22.9	63	81-110	Mixed conifer stand, with a complex of low areas scattered within. Not a lowland stand although wet in spots. Handful of large diameter Pine mixed in stand.
30	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	6.2	68	1-50	Open stand with mix of clumpy low quality oak, pine, aspen. Private to west. Dry open stand low quality and volume.
32	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	13.5	5		Stand was final harvested last YOE as part of sale #63-013-04-01. Relatively open close to non-forested stand, although with time the mix of natural jack pine and oaks should fill in. Considering sandy outwash site and pine barrens proposed designation regeneration appears in line with management goals. Appears to have seeded in better towards edge of adjacent mature jack pine stand.
34	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	35.9	160	200+	Variable Hemlock stand with other conifer and lowland hardwood mixed in. Some super canopy pine. Mostly lowland although the higher quality hemlock and pine are found on a little higher ground in the southern portion of the stand. Little regen under hemlock. 131 borders to west and NCT goes through.
35	4311 - Pine, Aspen Mix	High Density Pole	45.5	61	51-80	Mixed pole white pine stand, with mix of aspen/maple/oak. Few legacy white and red pine scattered. Borders private to north and Manistee river bluff to south. NCT runs through stand.
36	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	42.5	5		Stand was final harvested last YOE as part of sale #63-013-04-01. Relatively open close to non-forested stand, although with time the mix of natural jack pine and oaks should fill in. Regen currently variable at 3 to 10 foot tall. Considering sandy outwash site and pine barrens proposed designation regeneration appears in line with management goals.
37	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.2	65	51-80	Lowland mixed pole hardwood stand with pockets of nice hemlock/cedar mixed in. Small pocket of mature aspen to west. Wet humucky ground. Deer yard.
38	6139 - Mixed Lowland Forest	High Density Pole	42.7	Uneven Age		Scenic steep bluff along Manistee river and large creek drainage. Wet ground near river, with potential to be seasonally flooded. Variable stand with lowland characteristics near river flats (Cedar, Spuce, Balsam, lowland hardwood). Large diameter natural red-white pine and aspen-oak as one goes up the bluff on higher ground. Hemlock and cedar near creek edge. Small pockets of lowland hardwood on river flooded flats.
39	42110 - Planted Red Pine	High Density Pole	7.7	58	111-140	Small L shaped pole red pine plantation. Variable and not very uniform with pockets of jack mixed in. Some oak in understory.
40	4310 - Pine, Oak Mix	High Density Pole	167.4	52	111-140	Large natural Jack Pine stand with significant oak component on dry sandy site. Stand more open in spots particularly to the east. Bordered by private to the north and east.
41	4319 - Mixed Upland Forest	High Density Pole	12.4	110	81-110	Mixed upland stand with significant concentrated hemlock component. Scattered super canopy pine throughout, with maple/oak/aspen filling in around hemlock. Small drainage to river in middle of stand. Heavy deer activity with limited regeneration overall.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42	4310 - Pine, Oak Mix	High Density Pole	33.7	56	81-110	Low to Medium stocked mature jack pine, with scattered open grown oak mixed in. More oak in southern portion. White pine and oak regenerating in understory. Semi open in spots, jack pine showing signs of age. Couple legacy pine in stand.
43	42130 - Planted Scotch Pine	High Density Pole	3.1	54	111-140	Narrow strip of planted scotch pine.
44	4131 - Aspen, Oak	High Density Sapling	14.5	17		Young aspen stand, with 20 BA of mature oak in the overstory left from past harvest. Stand was harvested in 1994. Oak saplings mixed in 20 feet tall aspen regen.
45	42110 - Planted Red Pine	High Density Sapling	43.7	28	1-50	Young red pine plantation, appears to be growing relatively slow in early years due to Jack Pine volunteer competition. Stand is over topped in spots by mature jack pine. Reds now look to be getting full sunlight and may now begin to take off. Close to pole sized. Rows will be lost in spots due to heavy to jack pine regen in stops.
46	4126 - White, Black, N. Pin Oak	Medium Density Log	77.2	79	1-50	Shelterwood treatment last YOE. Variable quality log oak/ white pine mix make up canopy; filling in with red maple, oak, aspen and white pine. Large stand with higher quality regen in spots. Private and Fife Lake creek bluff borders stand.
47	4130 - Aspen	High Density Sapling	5.5	17		Young aspen stand 20 feet tall. Oaks mixed in 3 to 5 feet tall.
48	4133 - Aspen, Mixed Pine	High Density Pole	14.1	25	1-50	Small pole aspen stand nearly sap in spots, with a solid mix of white pine. Few scattered log oak and white pine. Borders Manistee river bluff. Heavier to white pine in the north.
49	42110 - Planted Red Pine	High Density Pole	2.5	40	141-170	Small island of 4/5 stick plantation red pine which has not been thinned or managed yet. Was prescribed last YOE but was delayed.
50	4191 - Mixed Upland Deciduous with Conifer	Medium Density	127.6	8	1-50	Treated last YOE- Bee Nimble Jack Sale # 63-035-03-01. Scattered pockets of mature jack pine were left as retention. Along with all white pine/oak. Good natural jack pine and oak regeneration representing the future of this stand. Southern unit of sale has a higher residual, with more oak and white pine. [more aspen regen] Stand is a proposed pine barrens BSA, with the current composition appearing to be meeting this designation. Regeneration seems good for the outwash sandy site, although openings will be present in this stand as it matures. Will be a mixed jack/oak/aspen stand of medium density.
51	42110 - Planted Red Pine	High Density Pole	30.1	50	171-200	Medium quality pole sized red pine plantation.
52	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	10.2	105	141-170	Lowland mixed stand bordering Manistee and Fife Lake Creek Bluffs. Nice pockets of hemlock and legacy white/red pine. Wet humucky ground. Small pocket of pole/log aspen. Lowland aspen concentrated to west edge.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
53	4319 - Mixed Upland Forest	High Density Log	124.9	Uneven Age	81-110	Manistee and Fife Lake Creek valley complex. Scenic area characterized by steep slopes and a mix of mature oak, aspen and red/white pine. While the majority of the stand is upland, small lowland conifer sites are present on flats near the river bottom. Many large super canopy red and white pine, with some Hemlock in the understory, particularly in Fife Lake creek portion of the valley.
54	42221 - Natural Jack Pine, Mixed Deciduous	Low Density Pole	18.4	44	1-50	Open savanna, low density Jack Pine and Cherry slowly filling in. Part of Pine Barrens in MNFI.
56	42290 - Natural Mixed Pine	High Density Pole	19.1	Uneven Age	111-140	Well stocked mixed pole conifer. Mostly white and jack, scattered log sized oak and red/white pine. Dense stand. Borders Fife Lake Creek Bluff.
57	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	49.2	42		Diverse pole stand dominated by white pine. Aspen, maple, and log oak mixed in. Borders fife lake creek bluff. Variable white pine in understory. Some log aspen but not much. Lowland around significant drainage to fife lake creek present in northern part of stand. A few super canopy pine scattered.
58	4130 - Aspen	High Density Pole	83.9	35	51-80	Diverse stand with mostly small aspen pole. As you get closer to river more log maple/oak/and white pine. Some log aspen near river, but overall small pole big tooth. Some topo differences in stand. White pine understory.
59	42220 - Natural Jack Pine	High Density Pole	4.1	57	1-50	Small low density stand of mature jack pine with scattered rows of pole plantation red pine. Borders private to north.
60	4130 - Aspen	High Density Pole	22.6	56	81-110	Mature Aspen stand with mix of scattered Red Maple and Oak. Low density white pine/balsam fir understory.
61	6132 - Mixed Lowland Forest with Cedar	High Density Pole	6.9	63	111-140	Small lowland flats along river. Lowland hardwood, with red maple and basswood. Cedar and baslam major component. Deer yard.
62	4131 - Aspen, Oak	High Density Pole	61.5	49	81-110	Structurally diverse aspen dominated stand, with quality maple and oak mixed throughout. Pockets of log aspen although majority of stand is a mix of pole aspen/maple. White pine in understory. Small lowland cedar stand in northern part of stand.
64	4124 - Red with White Oak	High Density Log	8.2	83	51-80	Dry low to medium quality oak site with open pockets throughout. Relative low volume and basal area. Borders Private and East Dr. Stand slowly regenerating in spots.
66	4124 - Red with White Oak	High Density Pole	6.9	79	51-80	Large Crown Pole/Log oak stand, which was underplanted with red pine in rows. Oak overstory in decent shape, with 10 to 20 foot tall planted pine appearing to be shaded out and growing very slowly.
67	42210 - Natural Red Pine	High Density Log	4.2	85	171-200	Log sized natural red pine/white along river bluff. White pine/red maple understory.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
68	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	6.0	62		Lowland flat along river dominated by cedar/fir although significant lowland hardwood component mixed in.
69	6130 - Fir, Aspen, Maple	High Density Pole	22.3	Uneven Age		Lowland mixed conifer, with super canopy white and red pine in the north, and more lowland conifer and cedar near the stream. Wet humucky ground with beaver activity. Seasonal drainage to Fife Lake Creek.
70	42110 - Planted Red Pine	High Density Pole	40.6	50	111-140	Small pole Red Pine plantation 3rd row thinned last YOE, dry site with a small strip of scotch pine along the southern private boundary.
72	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	12.6	36	51-80	Younger red pine plantation which has failed in spots. Average 3 stick pine, with rows defined only in pockets. Southern portion of plantation has completely failed in some areas and converted to aspen/white pine.
73	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	35.1	45	81-110	Pole aspen with heavy mix of oak/maple and white pine. There is a pocket in the north of legacy pine as well as larger diameter pine scattered within the stand. Scattered open grown Oak mixed in over White pine. Private borders the west. Fife Lake Creek bluff borders a small section of the stand along with lowland to the south.
78	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	4.4	Uneven Age		Lowland conifer with cedar mixed in. Wet dense stand with humucky ground. Likely deer yard. Borders private on southern edge.
79	42290 - Natural Mixed Pine	High Density Log	68.4	79	111-140	Nice Natural Pine Stand with a few legacy pine scattered in the stand. Was a marked pine thinning last YOE, with all aspen, jack pine and maple cut. Pine overstory stands at an average of 90 to 150 basal area. Strong Aspen and Red Maple regeneration ten to twenty feet tall. Stand borders private in the south and east in spots. Pockets in east end of stand near lowland edge are more open then in majority of site.
80	4111 - S.Maple, Hard Mast Association	High Density Log	18.7	79	111-140	Log large crown hardwood stand. Large basswood and beech. Some beech regen but overall limited regeneration. Heavy to basswood with most sugar maple being pole size.
81	4130 - Aspen	High Density Pole	54.5	16		Small pole bigtooth aspen. A few oaks and hardwood left when stand was last cut. Stand gets more wet to the east with more hardwood mixed in. Small strip of white pine on ridge in west end of stand.
82	6112 - Lowland Aspen	High Density Pole	25.0	55	51-80	Variable stocked pole lowland aspen stand, western edge of stand has more jack pine/oak and is more upland. Significant blowdown from wind event present along Two road and in southeastern portion. Small openings present in stand. More wet to east. [Drainage]
84	4130 - Aspen	High Density Sapling	2.6	25		Small sap aspen stand approaching pole. Few white pine and pole aspen mixed in. Seasonal drainage on west portion of stand near two road.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
86	6139 - Mixed Lowland Forest	High Density Pole	68.8	55		Lowland complex of cedar/fir and lowland hardwoods near river edge. Steep bluffs down to river in the western portion of the stand, with the majority of the stand being a flat floodplain along the river .
89	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	7.8	58		Lowland mixed stand, with wet humucky ground. Southern portion of stand is open with small emergent wetland.
90	42260 - Natural Pine, Mixed Deciduous	High Density Pole	11.8	72	81-110	Mixed White Pine/Jack Pine/Aspen stand, with limited white pine and oak regeneration. Variable density with humucky uneven ground. Southern portion of stand mostly aspen.
91	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	12.7	81	51-80	Lowland seasonally wet mixed deciduous stand with conifer component. Thick balsam understory with humucky ground and evidence of windthrow. Stand bordered by large bog in the west of the compartment.
94	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	18.0	93		Dense lowland conifer stand, bordered by private to the north.
96	4116 - Mixed N. Hardwood - Aspen	High Density Log	19.1	Uneven Age	111-140	Log dominated hardwood stand, bordered by private and the Manistee river bluff. Average BA range of 110 to 150. Significant overmature aspen component and log basswood. Adjacent private hardwood looks to have been thinned in recent years.
97	4130 - Aspen	High Density Pole	9.4	58	51-80	Mature aspen stand with some balsam mixed in. High ground surrounded by wet.
98	42110 - Planted Red Pine	Medium Density Log	4.1	58	111-140	Small isolated pine plantation which was second thinned treated last YOE. (Green Ringed) Quality logs remain with limited regen in the understory. Good crown spacing. Access is fairly difficult, road work/temp bridge involved last entry.
99	6112 - Lowland Aspen	Medium Density Pole	39.0	40	51-80	Variable stocked lowland aspen complex. Pockets of mature aspen clones although mostly small pole sized stand. Mostly lowland and seasonally flooded although more upland in northern and far southern portions of stand. Semi open to north, with better volume to south. Beaver activity throughout, with large beaver dam and small stream running through stand.
100	42110 - Planted Red Pine	Medium Density Log	1.6	58	81-110	Small isolated pine plantation which was shelterwood treated last YOE. (Green Ringed) Quality logs remain with limited regen in the understory. Good crown spacing. Access is fairly difficult, road work/temp bridge involved last entry.
101	6132 - Mixed Lowland Forest with Cedar	High Density Pole	24.6	85		Mostly lowland complex of balsam fir, cedar, aspen and some lowland hardwood.
102	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	11.5	93		Very wet lowland with cedar/black ash complex. Standing water in spring. Windthrow and humucky ground. Beaver activity.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	6120 - Lowland Cedar	High Density Pole	2.2	93		Small wet cedar stand. Some of the cedar is dead. Drainage present.
105	4130 - Aspen	Medium Density Pole	9.2	58	51-80	Mature Aspen stand which is relatively open. Some balsam mixed in.
107	4130 - Aspen	High Density Pole	11.6	61	51-80	Quality aspen Pole/Log stand with understory balsam.
109	6112 - Lowland Aspen	High Density Pole	18.3	39		Variable small pole aspen complex. Wet uneven ground throughout most of stand with sections of slightly upland aspen. Small conifer component.
110	42110 - Planted Red Pine	High Density Log	4.8	58	141-170	Quality red pine plantation, second thinned last YOE.
113	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	22.5	63	51-80	Lowland balsam/cedar with lowland hardwood component. Wet ground with pockets of windthrow.
114	4130 - Aspen	High Density Pole	2.7	21		Small pole aspen, with a few balsam fir mixed in.
115	42110 - Planted Red Pine	High Density Log	21.4	58	111-140	Quality red pine plantation second thinned last YOE.
116	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	33.6	41		Lowland strip along river of mostly aspen with significant balsam component. Lowland pole hardwood mixed in. Some cedar near river. A few very wet lowland hardwood pockets near flooded flats along river edge.
117	6112 - Lowland Aspen	High Density Pole	7.7	31		Small pole size aspen dominated stand with cedar, balsam component. Wet relatively low ground.
118	6130 - Fir, Aspen, Maple	High Density Pole	26.9	55	81-110	Lowland mix of pole aspen and fir. Cedar mixed in near river edge, with a few lowland hardwood also present in small river bottom flats.
119	4319 - Mixed Upland Forest	High Density Pole	15.9	52	111-140	Upland mixed balsam/aspen with small pockets of cedar and black ash. Southwest pocket of stand is lowland, with mostly cedar and ash. Some maple in north.
120	42110 - Planted Red Pine	High Density Log	2.6	58	171-200	Quality Log/Pole red pine plantation which has been third row thinned in the past and second thinned last YOE.
121	42110 - Planted Red Pine	High Density Log	14.8	58	171-200	Quality log dominated red pine plantation, which was second thinned last YOE.
122	42110 - Planted Red Pine	High Density Pole	3.4	58	111-140	Quality planted pine which was second thinned last YOE.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
123	42110 - Planted Red Pine	High Density Log	1.9	58	141-170	Quality planted red pine second thinned last YOE. Mostly logs/telephone poles of high quality and growth.
124	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	7.5	Uneven Age	51-80	Wet mixed lowland site, with private bordering to the north. Intermetent stream present in stand. Windthrow and humucky ground evident.
125	4130 - Aspen	High Density Pole	29.0	45	51-80	Variable upland aspen complex, relative low volume with small openings throughout. Hardwood in spots but aspen dominated. Borders Manistee river bluff. Small bog and drainages to Manistee present in northwest portion of stand, with very small hemlock pockets near by drainages.
126	4111 - S.Maple, Hard Mast Association	High Density Log	55.1	75	81-110	Medium quality log/pole hardwood stand. Pockets of higher quality timber to north, average BA of 70-110. Small Ash component which is dead in spots from EAB? Ironwood/ beech regen 10-20 foot. Limited sugar maple regeneration.
127	42110 - Planted Red Pine	High Density Log	1.5	58	111-140	Small island of quality planted red pine, which has failed in spots with a few large crowned hardwood filling in open spots.
128	6132 - Mixed Lowland Forest with Cedar	High Density Pole	27.0	56	141-170	Lowland flat along river, dominated by mixed pole aspen and balsam. More lowland character near river edge. Dense stand. A few lowland hardwood pockets are located along the flooded river flats.
129	4136 - Aspen, Mixed Conifer	High Density Log	13.8	79	111-140	Steep valley side down to Manistee. Large aspen and oak along slope with small mixed conifer lowland along a flat where river bends. More balsam near river edge. Mostly upland, although lowland character near flats along river edge.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
7	122 - Road/Parking Lot	3.3	N/A	Unspecified	
8	122 - Road/Parking Lot	4.7	N/A	Unspecified	
16	122 - Road/Parking Lot	2.9	N/A	Unspecified	
18	3301 - Low Density Deciduous Tree	4.4	N/A	Unspecified	
31	6225 - Bog	6.2	N/A	Unspecified	
33	622 - Lowland Shrub	1.4	N/A	Unspecified	
55	622 - Lowland Shrub	1.8	N/A	Unspecified	
63	710 - Sand, Soil	1.0	N/A	Unspecified	
65	710 - Sand, Soil	2.3	N/A	Unspecified	
71	622 - Lowland Shrub	9.9	N/A	Unspecified	
74	50 - Water	1.8	No	Unspecified	
75	6220 - Alder/willow	0.7	N/A	Unspecified	
76	330 - Low-Density Trees	44.1	No	Unspecified	
77	50 - Water	60.7	N/A	Unspecified	
83	623 - Emergent Wetland	2.4	N/A	Unspecified	
85	623 - Emergent Wetland	1.7	N/A	Unspecified	
87	623 - Emergent Wetland	1.7	N/A	Unspecified	
88	623 - Emergent Wetland	2.7	N/A	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
92	310 - Herbaceous Openland	4.8	N/A	Unspecified	Open, filling in with aspen around the edges.
93	622 - Lowland Shrub	178.5	N/A	Unspecified	
95	50 - Water	11.8	N/A	Unspecified	
104	622 - Lowland Shrub	15.6	N/A	Unspecified	
106	622 - Lowland Shrub	5.1	No	Unspecified	
108	310 - Herbaceous Openland	0.8	N/A	Unspecified	tresspass,camp site with small trailer.Recent survey performed noting boundary.
111	622 - Lowland Shrub	19.6	N/A	Unspecified	
112	622 - Lowland Shrub	3.8	No	Unspecified	



7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments



8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

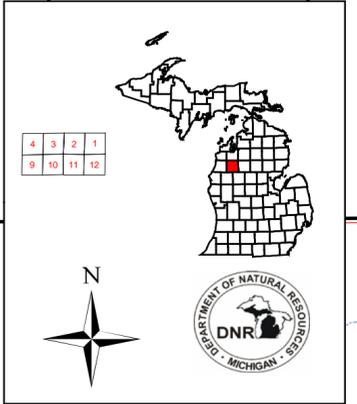
Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan 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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
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 Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

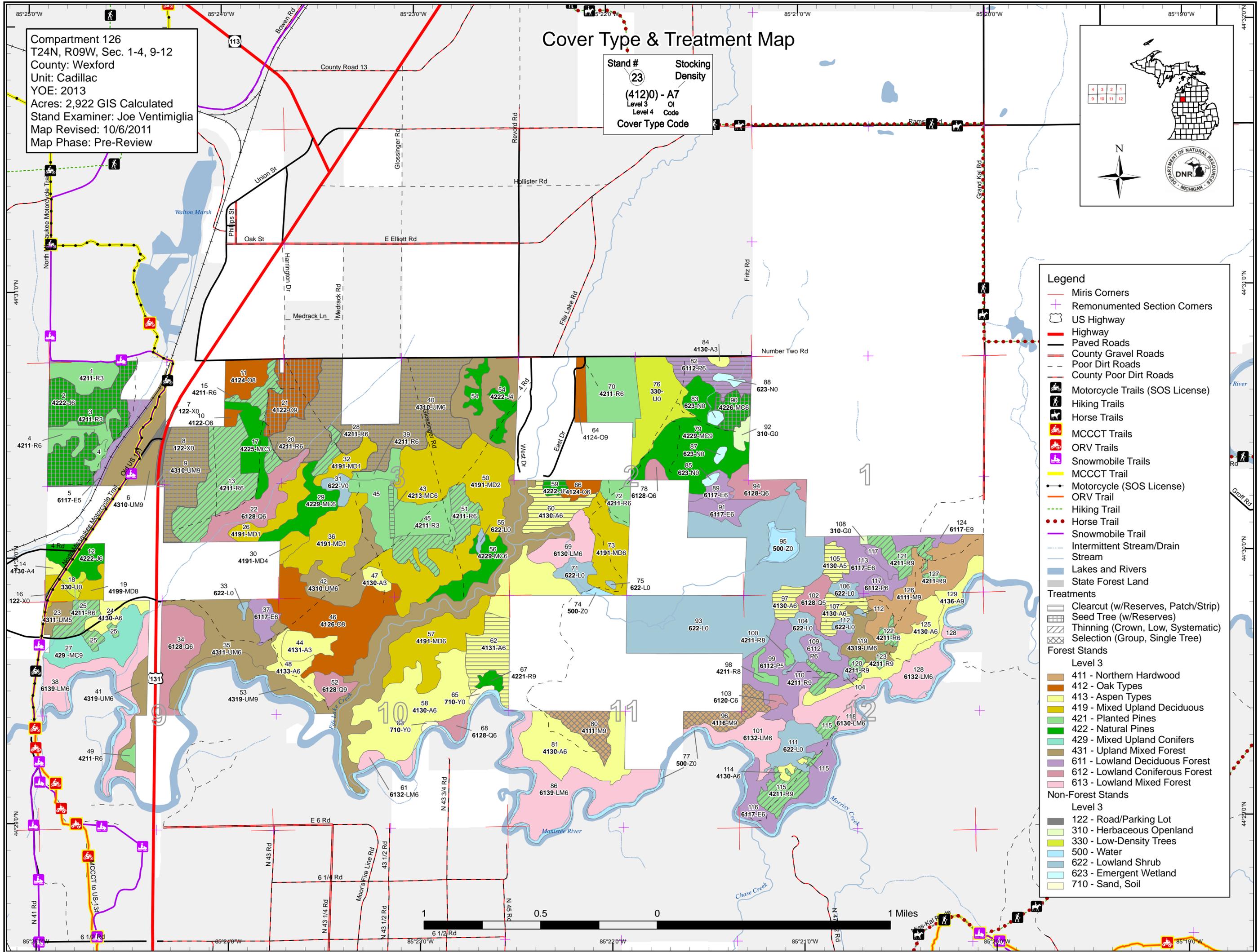
Cover Type & Treatment Map

Compartment 126
 T24N, R09W, Sec. 1-4, 9-12
 County: Wexford
 Unit: Cadillac
 YOE: 2013
 Acres: 2,922 GIS Calculated
 Stand Examiner: Joe Ventimiglia
 Map Revised: 10/6/2011
 Map Phase: Pre-Review

Stand #
 23
 Stacking
 Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



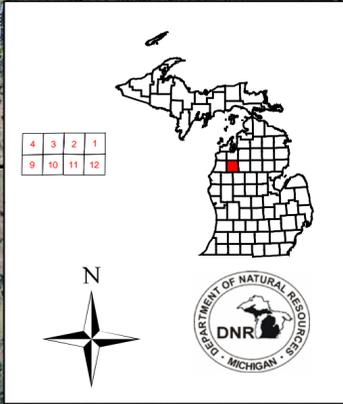
- ### Legend
- Miris Corners
 - Remonumented Section Corners
 - US Highway
 - Highway
 - Paved Roads
 - County Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Motorcycle Trails (SOS License)
 - Hiking Trails
 - Horse Trails
 - MCCCT Trails
 - ORV Trails
 - Snowmobile Trails
 - MCCCT Trail
 - Motorcycle (SOS License)
 - ORV Trail
 - Hiking Trail
 - Horse Trail
 - Snowmobile Trail
 - Intermittent Stream/Drain
 - Stream
 - Lakes and Rivers
 - State Forest Land
- ### Treatments
- Clearcut (w/Reserves, Patch/Strip)
 - Seed Tree (w/Reserves)
 - Thinning (Crown, Low, Systematic)
 - Selection (Group, Single Tree)
- ### Forest Stands
- Level 3
- 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- ### Non-Forest Stands
- Level 3
- 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 710 - Sand, Soil



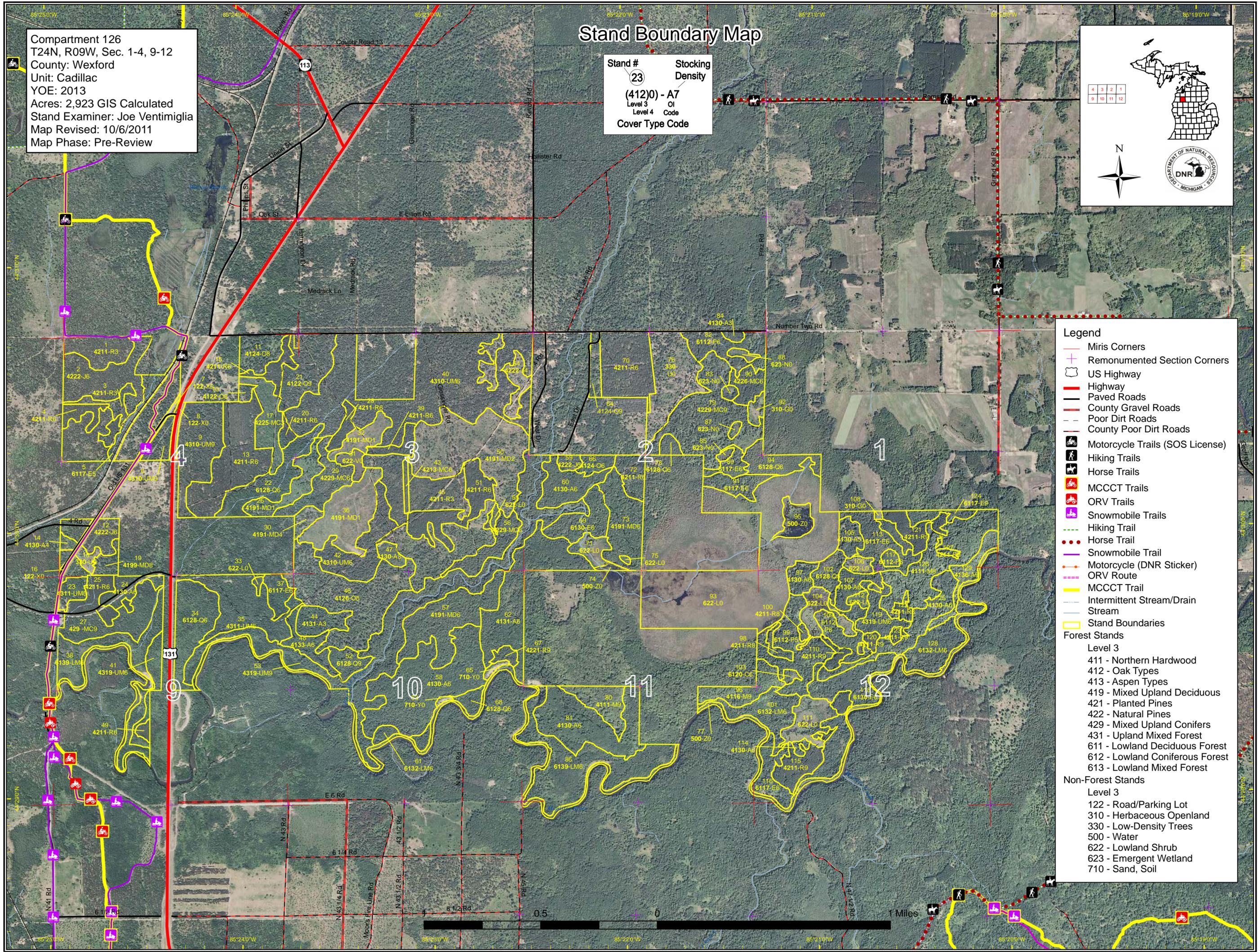
Stand Boundary Map

Compartment 126
 T24N, R09W, Sec. 1-4, 9-12
 County: Wexford
 Unit: Cadillac
 YOE: 2013
 Acres: 2,923 GIS Calculated
 Stand Examiner: Joe Ventimiglia
 Map Revised: 10/6/2011
 Map Phase: Pre-Review

Stand #
 (4120) - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code
 Stacking Density



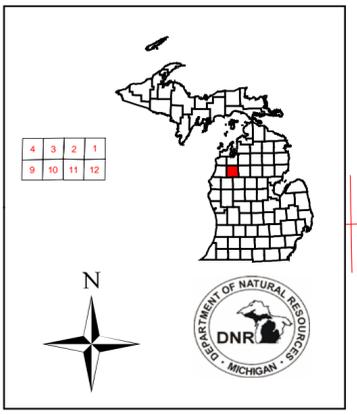
- ### Legend
- Miris Corners
 - + Remonumented Section Corners
 - US Highway
 - Highway
 - Paved Roads
 - County Gravel Roads
 - - - Poor Dirt Roads
 - - - County Poor Dirt Roads
 - Motorcycle Trails (SOS License)
 - Hiking Trails
 - Horse Trails
 - MCCCT Trails
 - ORV Trails
 - Snowmobile Trails
 - - - Hiking Trail
 - - - Horse Trail
 - - - Snowmobile Trail
 - - - Motorcycle (DNR Sticker)
 - - - ORV Route
 - MCCCT Trail
 - Intermittent Stream/Drain
 - Stream
 - Stand Boundaries
- ### Forest Stands
- Level 3
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- ### Non-Forest Stands
- Level 3
 - 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 710 - Sand, Soil



Dedicated & Proposed Special Conservation Area Map

Compartment 126
 T24N, R09W, Sec. 1-4, 9-12
 County: Wexford
 Unit: Cadillac
 YOE: 2013
 Acres: 2,923 GIS Calculated
 Stand Examiner: Joe Ventimiglia
 Map Revised: 10/6/2011
 Map Phase: Pre-Review

Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - Stand Boundaries
 - Dedicated Special Conservation Areas
 - Cold Water Streams
 - Natural Rivers Zoning District
 - Natural Rivers Vegetative Buffer

