Report 1 – Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 124
Entry Year 2015
Acreage: 1,843
County Kalkaska
Management Area: Grayling Outwash

Revision Date: 04/26/2013

Stand Examiner: Kelly Standerfer

Legal Description:

T26N-R6W, Sec.9,10,15,16

Identified Planning Goals:

This area is known locally as the “Sigma Swamp”. The area has experienced limited management as much of it is inaccessible due to low wet ground. One main goal for this year of entry is to maintain thick conifer cover where possible as this area functions as a large deer yard. At the same time, some treatments will occur to promote age class diversity within the aging mixed lowland covertype and also promote aspen and maple sprouting where possible. Opening complexes will likely be maintained by mowing or prescribed fire to increase the spring and summer grazing potential.

Soil and topography:

Soils range from lupton muck to rubicon sand, with lupton muck predominating. The topography is low and flat with a few upland islands in the larger swamp complex.

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

To the north, east and south is primarily state land. To the west is private land with the town of Sigma being directly on the west property line. The private land is mainly used as farm land and seasonal recreation use. On the state land, hunting and trapping are the main land uses with some snowmobile and ORV use just to the east of this compartment.

Unique, Natural Features:

This compartment falls within landtype associations (LTAs) 5149 and 5222 of sub-subsection VII.2.2. LTA 5149, a broad flat outwash plain with very poorly drained peat or muck, occurs in all but the southwest corner of section 16. LTA 5222 is a pitted outwash plain with well drained sandy loam soils. Circa 1800, vegetation of LTA 5222 was almost exclusively northern hardwood forests of American beech and sugar maple. Forty percent of the LTA has been converted to cropland with second-growth northern hardwoods occurring on another 25%. Red pine plantations now occur on 10%, while aspen/white birch forests, which were not noted here circa 1800, cover another 7% of the area.

A rich conifer swamp*, corresponding to stand 64, has been identified by MNFI ecologists in the southeast portion of section 15. The swamp extends below the compartment to the south on the east side of the North Branch of the Manistee river. Rich conifer swamps are weakly minerotrophic forested peatlands that occur mostly north of the transition zone. This natural community is situated primarily along streams and lakes but also occurs in drainage ways and in depressions in shallow drift over limestone and dolomite. The saturated peat of this swamp forest is typically very strongly acid at the surface and neutral to mildly alkaline below the surface in areas of groundwater influence. The dominant species is northern white-cedar (Thuja occidentalis) which often forms nearly pure stands. Rich conifer swamps are found on glacial lake plains, glacial outwash, foot slopes of morainal ridges and on coarse-to-medium textured ground moraines (especially drumlin fields). This exemplary rich conifer swamp occurs on poorly drained outwash adjacent to sandy moraine. The overstory is dominated by cedar with black spruce, red maple and balsam fir as canopy associates. During a brief survey of the vascular flora, 121 species were identified in this highly diverse swamp. Rich conifer swamps, particularly those dominated by cedar, tend to be high in biodiversity, especially plant species, and may contain rare plant species.

Blanding’s turtle (Emys blandingii, state special concern), wood turtle (Glyptemys insculpta, state special concern) and eastern massasauga (Sistrurus catenatus catenatus, state special concern) could occur in this compartment. In addition, the lowland brush, swamp conifer and swamp hardwoods could harbor great blue heron rookeries.

Archeological, Historical, and Cultural Features:

None listed however several old railroad grades run throughout the compartment.

Special Management Designations or Considerations:

There are two areas proposed for Special Conservation Area (SCA) status . The southeast end of the compartment (stand 64) is listed as it has been identified by MNFI ecologists as being a good example of a rich conifer samp. Stand 15 has also

been identified as a potential SCA as it is a unique stand. This 13 acre area will be managed for big tree management as it has some very large hemlock and white pine. The short lived species have laready been cut out of the stand in the early 90's as part of a habitat improvement cut.

Watershed and Fisheries Considerations:

The North Branch of the Manistee River flows through Compartment 124. The North Branch of the Manistee River has a self-sustaining population of brook trout and is one of the best brook trout streams in the Lower Peninsula. However, beavers have severely impacted the river in this area, causing siltation and water warming problems. This has led to reduced brook trout populations in some stretches of the North Branch. Because of this, the North Branch of the Manistee River is on the “Trout Streams Vulnerable to Beaver Damming” list. Therefore, future management of the riparian zone within 300’ of the stream should be to manage for species other than aspen.

Wildlife Habitat Considerations:

The bulk of state land in this compartment lies on an outwash plain (LTA 5149) with poorly drained soils. Presettlement records show that this outwash formation was typically dominated by coniferous wetlands with small occurrences of upland coniferous and northern hardwood forests. Present vegetation within this LTA and compartment is dominated by lowland communities including conifers, hardwoods, and shrubs. Upland communities, including northern hardwoods, aspen, and upland brush, are present to a much smaller extent. The North Branch of the Manistee River is a prominent feature in this compartment.

This large complex of lowlands is part of a significant deer yard. Existing coniferous wetlands and lowland hardwoods could be managed to perpetuate the sheltering aspects of expansive forested lowland communities. Conversely, maintaining early successional communities, including upland brush, on higher elevations in this LTA is appropriate as natural disturbances such as windfalls and wildfires occur here. Small upland pockets of aspen and hardwoods provide ideal stands to cut, mimicking natural windfalls or fire, for deer browse. This compartment also contains several annual rye plantings that will be continued. Some selective hand felling of encroaching woody vegetation will also be employed to maintain upland brush communities. Conifer dominated wetlands, in association with dry upland inclusions, provide habitat for white-tailed deer, bear, snowshoe hare, bobcat, evening grosbeaks, massasauga rattlesnakes, blazing star, and secretive locusts.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Mississippian Marshall Sandstone. The Marshall was previously used as a building stone. The nearest gravel pit is located three miles to the south, but there may be some potential along the west edge. This area is located six miles northwest of the Garfield 8 Field. The field produces from the Devonian Richfield and the Ordovician PdC. The PdC has produced over 46 Bcf gas. There are not any oil and gas leases in the Compartment.

Vehicle Access:

One main two-track traverses through the compartment however it is only available for use seasonally. This trail should be closed as shown on the map as it is negatively impacting the water and soil resources. If funding is available to fix the road system it could be opened up to the north end of stand 35.

Survey Needs:

Existing survey markers should suffice for current year of entry treatment needs.

Recreational Facilities and Opportunities:

The Cranberry Lake Snowmobile Trail runs just east of this compartment.

Fire Protection:

Low wet covertypes will hinder fire suppression activity as well as fire spread. Some of the spruces areas could become a fire hazard if extended drought periods are experienced in the late summer months. Access for wheeled fire suppression vehicles is very limited.

Additional Compartment Information:

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**

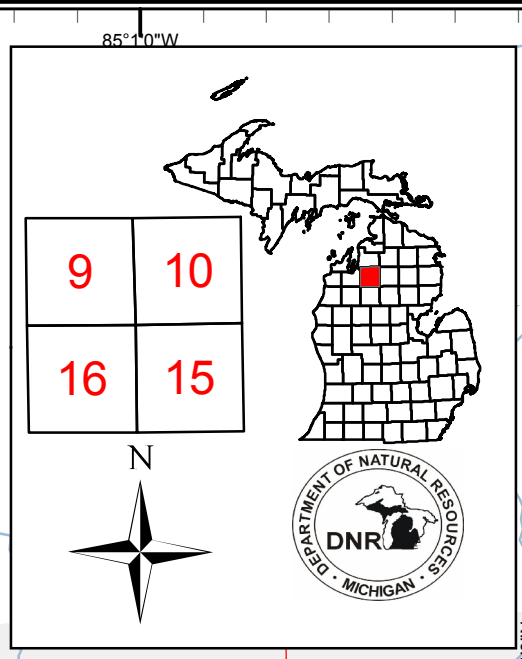
The following information is displayed, where pertinent, on the attached compartment maps:

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

Cover Type & Treatment Map

Compartment: 124
T26N R06W
02 03 04 09 10 11 14 15 16
County: Kalkaska
Unit: Traverse City
YOE: 2015
Acres: 1,843 GIS Calculated
Examiner: Kelly Standerfer
Map Revised: 05/29/2013
Map Phase: Web Post

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



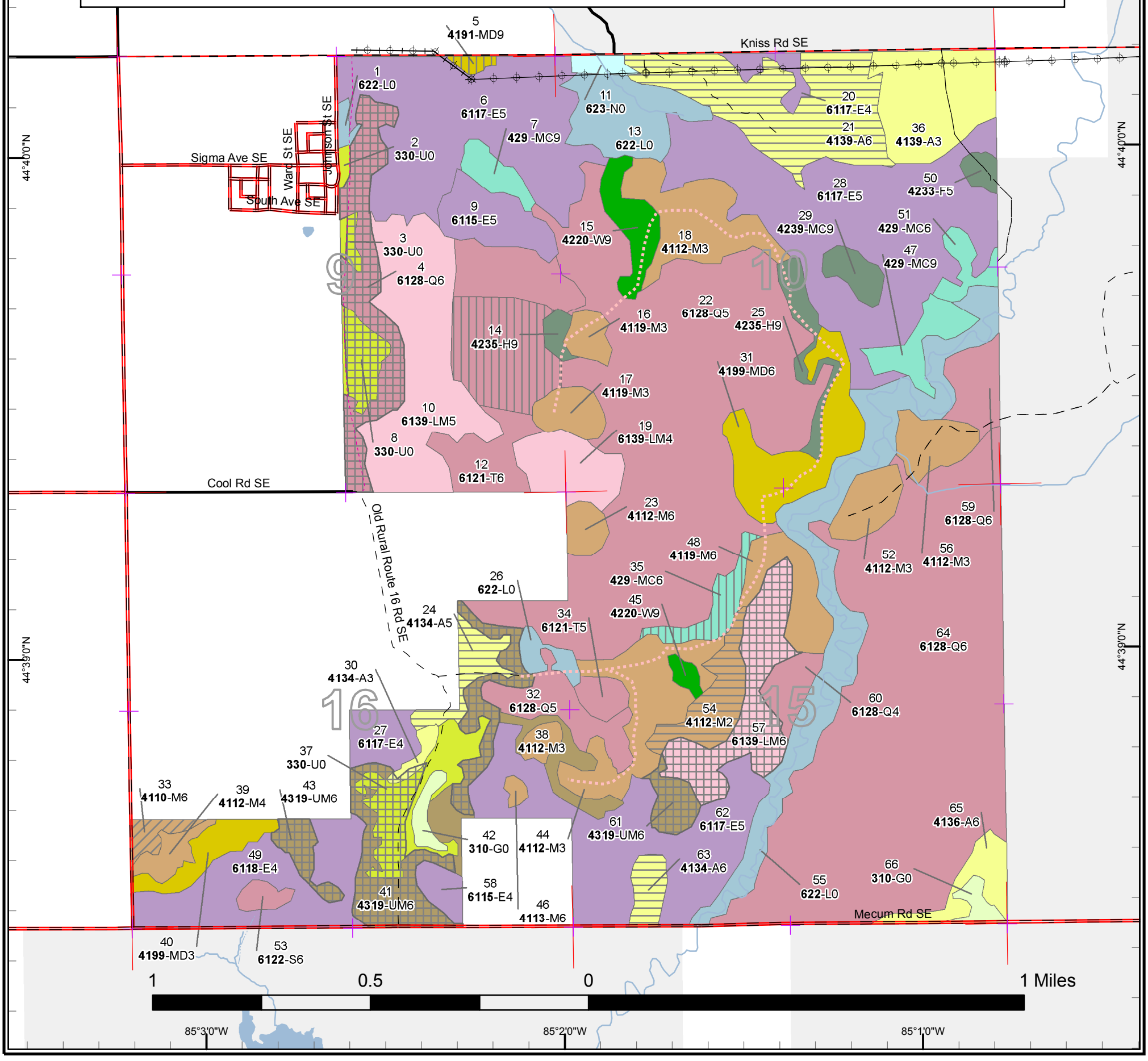
Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Railroads
- Pipeline
- Powerline
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Clearcut (w/Reserves, Patch/Strip)

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- State Forest Land



Stand Boundary Map

Compartment: 124
T26N R06W
02 03 04 09 10 11 14 15 16
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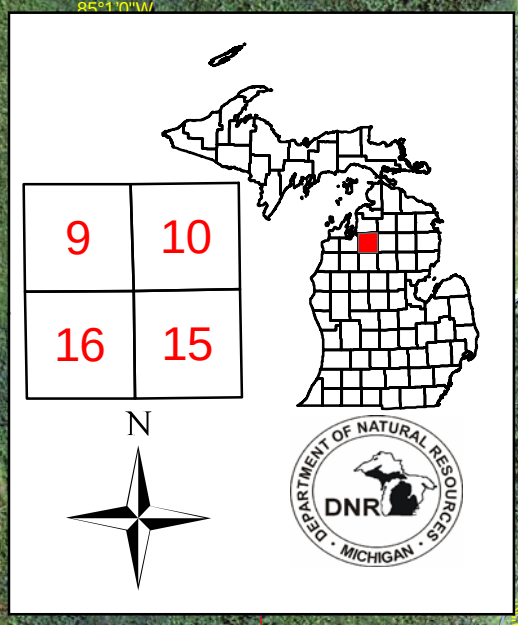

Legend
- Miris Corners
- Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Railroads
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- Powerline
- Stream
- Intermittent Stream
- Stand Boundaries

Kriss lake
Kniss Rd SE
Sigma Ave SE
South Ave SE
Ward St SE
Johnson St SE
Cool Rd SE
Old Rural Route 15 Rd SE
Mecum Rd SE

1 622-L0
2 330-U0
3 330-U0
4 6128-Q6
5 4191-MD9
6 6117-E5
7 429 -MC9
8 330-U0
9 6115-E5
10 6139-LM5
11 623-N0
12 6121-T6
13 622-L0
14 4235-H9
15 4220-W9
16 4119-M3
17 4119-M3
18 4112-M3
19 6139-LM4
20 6117-E4
21 4139-A6
22 6128-Q5
23 4112-M6
24 4134-A5
25 4235-H9
26 622-L0
27 6117-E4
28 6117-E5
29 4239-MC9
30 4134-A3
31 4199-MD6
32 6128-Q5
33 4110-M6
34 6121-T5
35 429 -MC6
36 4139-A3
37 330-U0
38 4112-M3
39 4112-M4
40 4199-MD3
41 4319-UM6
42 310-G0
43 4319-UM6
44 4112-M3
45 4220-W9
46 4113-M6
47 429 -MC9
48 4119-M6
49 6118-E4
50 4233-F5
51 429 -MC6
52 4112-M3
53 6122-S6
54 4112-M2
55 622-L0
56 4112-M3
57 6139-LM6
58 6115-E4
59 6128-Q6
60 6128-Q4
61 4319-UM6
62 6117-E5
63 4134-A6
64 6128-Q6
65 4136-A6
66 310-G0

1 0.5 0 1 Miles

85°3'0"W 85°2'0"W 85°1'0"W
44°41'0"N 44°40'0"N 44°39'0"N

Special Conservation Areas & Site Conditions Map

Compartment: 124
T26N R06W
02 03 04 09 10 11 14 15 16
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YOE: 2015
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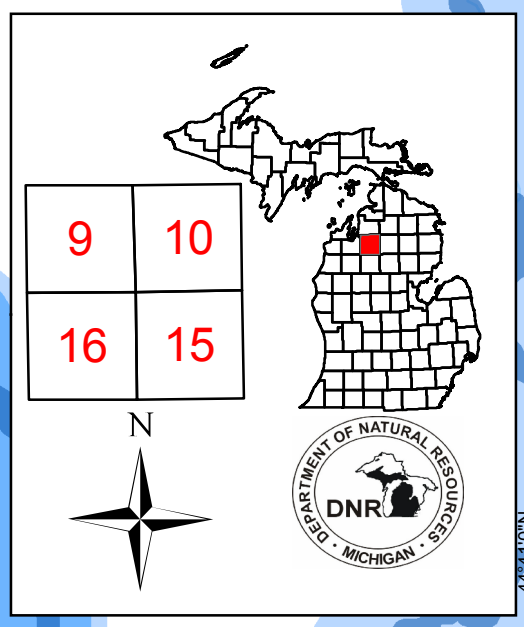

Legend
- Miris Corners
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)

Reviewable SCAs
- Proposed SCA
- SCA Removal

Dedicated Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands
- Stand Boundaries

Report 2 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit **Compartment 124 Year of Entry 2015**

Kelly Standerfer : Examiner

Age Class

	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 +	Uneven Age	Total
Aspen	0	0	42	13	62	18	0	0	0	0	0	0	0	0	**135**
Hemlock	0	0	0	0	0	0	0	0	0	0	14	0	0	0	**14**
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**
Low-Density Trees	38	0	0	0	0	0	0	0	0	0	0	0	0	0	**38**
Lowland Conifers	0	0	0	0	0	0	0	50	539	0	0	0	0	0	**589**
Lowland Deciduous	0	0	0	0	0	6	26	359	0	0	0	0	0	0	**391**
Lowland Mixed Forest	0	0	0	0	0	0	0	124	0	0	0	0	0	0	**124**
Lowland Shrub	108	0	0	0	0	0	0	0	0	0	0	0	0	0	**108**
Lowland Spruce/Fir	0	0	0	0	0	0	0	4	0	0	0	0	0	0	**4**
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
Mixed Upland Deciduous	0	0	12	34	0	0	0	2	0	0	0	0	0	0	**48**
Northern Hardwood	0	47	29	59	18	0	6	7	0	0	0	0	0	0	**166**
Tamarack	0	0	0	0	0	0	0	6	0	73	0	0	0	0	**79**
Upland Conifers	0	0	0	0	0	7	0	10	13	0	15	0	0	0	**45**
Upland Mixed Forest	0	0	0	0	0	0	68	0	0	0	0	0	0	0	**68**
Upland Spruce/Fir	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**4**
White Pine	0	0	0	0	0	0	0	0	0	3	0	0	13	0	**16**
Total	**159**	**47**	**83**	**106**	**83**	**32**	**100**	**563**	**552**	**76**	**29**	**0**	**13**	**0**	**1843**

Report 3 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2015

Compartment 124
Total Compartment Acres: 1843

Acres by Treatment Type

Commercial Harvest - 274	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	80	0	0	0	0	0	**80**
Lowland Coniferous Forest	0	0	36	35	0	0	**71**
Lowland Mixed Forest	0	0	36	0	0	0	**36**
Mixed Upland Conifers	0	0	0	10	0	0	**10**
Mixed Upland Deciduous	0	0	0	2	0	0	**2**
Northern Hardwood	18	0	0	0	5	0	**23**
Upland Mixed Forest	0	0	53	0	0	0	**53**
Total	**98**	**0**	**125**	**47**	**5**	**0**	**274**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	61124004-Cut	35.9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	75	111-140	Harvest	Seed Tree with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Cut out the short lived species over ~4" DBH (Fb, spruce, red maple, aspen, tamarack...save most or all cedar, red pine, and white pine) OK to leave a mix bag of seed trees where needed for seed, retention and diversity. North end has some nice wet footed aspen. OK to paint thick cedar areas out of the sale as well. @ pre review we discussed that the cherry and maple that is filling in the adjacent openings will be removed as well to help maintain the open areas. this will be done commercially with this timber sale. all trees over 4" dbh in the openings will be cut. Also trees will be marked along the edge that will be cut and felled into the adjacent lowland to help improve habitat value for hare.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	61124005-Cut	2.1	4191 - Mixed Upland Deciduous with Conifer	High Density Log	75	81-110	Harvest	Shelterwood	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Save all cedar, and white pine. cut all red maple, aspen and fir over 4"dbh. retention will be the residual cedar and white pine. OK to mark additional green trees for retention or mark out slivers when putting the red line in. Deer browse may be an issue but red maple stumps shoudl push past the browse.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	61124012-Cut	34.8	6121 - Tamarack	High Density Pole	93	81-110	Harvest	Shelterwood	6121 - Tamarack	Cmpt. Review Proposal

Prescription Specs: Some is very big tamarack. some is startign to blow over. understory is filling in with Balsam through much of it. Try to treat approximately half of the stand to restart some of the lowland covertype. Middle portion of stand looks to be do-able during a good cold winter or possibly a very droughty summer. Access will be very tricky...looks like from the west should be the shortest route but will require extensive freezing in of a skid trail. Mark tamarack to leave in clumps. try to protect advanced understory. regen

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	61124021-Cut	61.8	4139 - Aspen, Mixed Deciduous	High Density Pole	44	51-80	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Final harvest all aspen, cherry and maple this YOE. Cut balsam fir over 4 inches or so. save all mixed pine. south end of stand it is ok to cut some of the transition ground in the the adjacent swamp stand. Ok to green tree leave some trees for seed diversity and retention where aspen isnt present. these could be left via specification as well.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	61124024-Cut	10.7	4134 - Aspen, Spruce/Fir	Medium Density Pole	55	51-80	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: West edge is pretty open with scattered cherry. Overall clumpy aspen, maple, fir and cherry. Final harvest, save all Fb <4" Dbh, Maple <2" Dbh and all paper birch. OK to green tree leave seed trees where there isnt much aspen. Save all oak. Survey may be needed.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33	61124033-Cut	5.1	4110 - Sugar Maple Association	High Density Pole	78	171-200	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Nice maple stand. thin taking out the poor formed and realeasing the nice pole and log trees. OK to take some logs out as well to create a few openings. May be able to do a small firewood sale due to the small stand size.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	61124035-Cut	10.2	429 - Mixed Upland Conifers	High Density Pole	75	111-140	Harvest	Shelterwood	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: some nice super canopy white pine. Take out the short lived species Birch, red maple, fir, aspen, spruce over 4" DBH. OK to green tree maark some or leave some along the west edge for seed, diversity and retention.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41	61124041-Cut	37.2	4319 - Mixed Upland Forest	High Density Pole	61	81-110	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Stand is on the transition ground between the upland and lowland. OK to dip into adjacent Q type when possible to promote age class diversity in lowland type. Some fir is getting to be in rough shape. Cut all fir over 4" Dbh, cut all red maple, aspen, birch & cherry. retention is already taken out of treatment area to the east of the opening as per wildlife request @ pre review. OK to leave some scattered seed trees for diversity, seed & retention. save all cedar and hemlock. Mark a few trees along edge of sale to fell and leave as this area is loaded with snowshoe. Also @ pre-review we talked about removing encroaching trees west of the road to help maintain the grass opening complex. This will be done comercially, all trees over 4"dbh will be cut out of the opening west of the road.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
43	61124043-Cut	7.2	4319 - Mixed Upland Forest	High Density Pole	65	111-140	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: nice mixed stand. cut all red maple, aspen, fir & Birch over approx 4 inches. green tree a few seed trees where needed. Should be able to get to stand via old rail road grade or through the aspen stand to the west. South end may be painted out fo the sale if its to wet for access, this area will function as retention, otherwise paint out some of the sale area and save enough seed trees to fulfill atleast 3% retention. Save all long lived conifers if present, (ie hemlock, white pine, cedar) mixed species stand and resulting regen shoudl be a mix of the current overstory species.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
54	61124054-Cut	17.6	4112 - Maple, Beech, Cherry Association	Medium Density Sapling	45	1-50	Harvest	Clearcut	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Specs: cut out all deciduous 2" and up. should be able to cut commercially. mainly chipper wood but may be able to cut some of it with roundwood crew. access road is in very rough shape,winter access only. stand to the east is being cut as well however tree length equipment can not be used in it so roundwood this stand as well. Goal is to set back the woody encroachment and increase the browse potential in deer year area. Site will be allowed to fill back in over time.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
57	61124057-Cut	36.1	6139 - Mixed Lowland Forest	High Density Pole	76	81-110	Harvest	Seed Tree with Reserves	6139 - Mixed Lowland Forest	Cmpt. Review Proposal

Prescription Specs: Nice mixed stand. some is upland some is wet. Seed tree harvest leaving mainly longer lived species for seed as well as a mix of all species via green tree marking or cutting spec. save all cedar & hemlock and probably all white pien over 16 inches. Paint out cedar areas if they are large enough or protect them via cutting specs. Retention will likely be a sliver on the east end where stand gets to wet for treatment as well as the scattered seed trees. OK to leave seed trees in clumps to help with windfirmness.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
61	61124061-Cut	8.1	4319 - Mixed Upland Forest	High Density Pole	68	81-110	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: nice mixed stand. cut out short lived species over 4" dbh. mark seed trees where needed. try to protect as much of the advanced regen as possible. Save all cedar, hemlock and pine. Treat with stand to the NE to promote regeneration and habitat diversity in the area. Heavy deer use area.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	61124063-Cut	7.6	4134 - Aspen, Spruce/Fir	High Density Pole	57	81-110	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: save all hemlock and all or most white pine. cut the remaining species 3" and up to promote nice aspen regen. hemlock, pine and protected advanced regen will function as retention. Retention may be under the 3% due to small stand size and to maximize regenerating stem density.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2014

Total Treatment Acreage Proposed: 274.4

Report 5 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Type!							

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor

Total Treatment Acreage Proposed: **0**

Data updated before 10:00 AM

Report 6 – Out of YOE – Treatments Prescribed with No Limiting Factor

Year of Entry: 2015

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28218	5.9	Unspecified				Harvest	Other - Specify in Comments	Unspecified	Cmpt. Review Proposal

Prescription Specs:

Other Comments:

Next Steps:

Proposed Start Date:

28219	7.2	Unspecified				Harvest	Other - Specify in Comments	Unspecified	Cmpt. Review Proposal - Incomplete

Prescription Specs:

Other Comments:

Next Steps:

Proposed Start Date:

61043_OutOfYOE-Cut	2.1					Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal - Incomplete

Prescription Specs: retain some pine and osk for mast and seed production, Folllow WLD guidance for CWD creation. Harvest all stems that are not retained.

Other Comments: New stand should have mix of oak, pine, aspen and maple.

Next Steps:

Proposed Start Date: 09/01/2009

Total Treatment Acreage Proposed: 15.3

Report 7 – Site Conditions

Traverse City Mgt. Unit

Kelly Standerfer : Examiner

Compartment 124

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5C	3L	3J	3H	2G
135	135		**Aspen**	135					
14	14		**Hemlock**	14					
588	36	553	**Lowland Conifers**	36		266	14	244	29
391		391	**Lowland Deciduous**						391
124	36	88	**Lowland Mixed Forest**	36					88
4	4		**Lowland Spruce/Fir**	4					
48	48		**Mixed Upland Deciduous**	48					
166	166		**Northern Hardwood**	166					
79	79		**Tamarack**	35	44				
45	25	20	**Upland Conifers**	25			20		
68	68		**Upland Mixed Forest**	68					
4	4		**Upland Spruce/Fir**	4					
16	3	13	**White Pine**	3		13			
1,684	618	1,066	Total Forested Acres	574	44	279	34	244	508
	37%	63%	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
002		**Not Available**	**3L: Other wildlife concerns**	266	3B: Threatened, endangered, and special concern species/communities			

Comments:

stand identified by MNFI as a AB Rich Conifer swamp covertype. Most is very wet and unmaneagable.

003		**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	412	5D: Unproductive Forest Land			

Comments:

Wet. Tag alder under

004	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	10	5D: Unproductive Forest Land	
Comments:					
005	**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	14	3H: Deer Wintering Areas	3L: Other wildlife concerns
Comments:					
006	**Not Available**	**3H: Deer Wintering Areas**	244	2G: Too wet (sensitive soils, does not include access issues)	
Comments:					
007	**Not Available**	**3L: Other wildlife concerns**	14	5C: Delay treatment for age/size class diversity or exceptional site quality	
Comments:					
008	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	21		
Comments:					
009	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	18		
Comments:					

010	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	6	
	Comments:			
011	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	19	5D: Unproductive Forest Land
	Comments:			
012	**Not Available**	**2G: Too wet (sensitive soils, does not include access issues)**	68	5D: Unproductive Forest Land
	Comments:			
013	**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	13	
	Comments:			
014	**Not Available**	**3J: Water quality / BMPs (stream, river, or lake)**	7	
	Comments:			
015	**Not Available**	**2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)**	6	2G: Too wet (sensitive soils, does not include access issues)
	Comments:			

016	**Not Available**	**2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)**	8	3K: Rare or unique landforms

Comments:

Report 8 – 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
Unspecified	Habitat Areas or Corridors	Other Habitat Area	**SCA**	13.5
Comments				
See Stand comments. Unique stand of mature white pine.				
Sigma swamp (MNFI Database)	Habitat Areas or Corridors	Other Habitat Area	**SCA**	291.2
Comments				
Element Occurrence				

Report 9 – 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.

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

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
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.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	35.9	75	111-140	
5	4191 - Mixed Upland Deciduous with Conifer	High Density Log	2.1	75	81-110	
6	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	95.7	70	1-50	
7	429 - Mixed Upland Conifers	High Density Log	7.7	105	111-140	
9	6115 - Lowland Ash	Medium Density Pole	19.2	65	1-50	
10	6139 - Mixed Lowland Forest	Medium Density Pole	68.0	75	51-80	
12	6121 - Tamarack	High Density Pole	73.2	93	81-110	
14	42350 - Upland Hemlock	High Density Log	3.6	105	111-140	
15	42200 - Natural White Pine	High Density Log	13.5	129	111-140	
16	4119 - Mixed Northern Hardwoods	High Density Sapling	6.3	19		
17	4119 - Mixed Northern Hardwoods	High Density Sapling	9.7	19		
18	4112 - Maple, Beech, Cherry Association	High Density Sapling	30.8	19		
19	6139 - Mixed Lowland Forest	Low Density Pole	20.0	75	1-50	
20	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	6.2	55	1-50	
21	4139 - Aspen, Mixed Deciduous	High Density Pole	61.8	44	51-80	
22	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	244.3	85	51-80	
23	4112 - Maple, Beech, Cherry Association	High Density Pole	6.4	65	141-170	
24	4134 - Aspen, Spruce/Fir	Medium Density Pole	10.7	55	51-80	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	42350 - Upland Hemlock	High Density Log	10.7	105	141-170	
27	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	12.2	73	1-50	
28	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	125.7	75	1-50	
29	42390 - Mixed Non-Pine Upland Conifers	High Density Log	7.3	105	171-200	
30	4134 - Aspen, Spruce/Fir	High Density Sapling	3.3	26		
31	4199 - Other Mixed Upland Deciduous	High Density Pole	33.5	39	81-110	
32	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	19.1	85	51-80	
33	4110 - Sugar Maple Association	High Density Pole	5.1	78	171-200	
34	6121 - Tamarack	Medium Density Pole	6.1	76	51-80	
35	429 - Mixed Upland Conifers	High Density Pole	10.2	75	111-140	
36	4139 - Aspen, Mixed Deciduous	High Density Sapling	38.7	24		
38	4112 - Maple, Beech, Cherry Association	High Density Sapling	4.0	26		
39	4112 - Maple, Beech, Cherry Association	Low Density Pole	6.9	35	1-50	
40	4199 - Other Mixed Upland Deciduous	High Density Sapling	12.2	26		
41	4319 - Mixed Upland Forest	High Density Pole	52.7	61	81-110	
43	4319 - Mixed Upland Forest	High Density Pole	7.2	65	111-140	
44	4112 - Maple, Beech, Cherry Association	High Density Sapling	34.7	33	1-50	
45	42200 - Natural White Pine	High Density Log	2.9	98	81-110	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	4113 - R.Maple, Conifer	High Density Pole	1.8	75	111-140	
47	429 - Mixed Upland Conifers	High Density Log	12.7	85	81-110	
48	4119 - Mixed Northern Hardwoods	High Density Pole	17.8	39	1-50	
49	6118 - Lowland Deciduous with Cedar	Low Density Pole	47.9	75	1-50	
50	42330 - Upland Fir	Medium Density Pole	3.8	45	1-50	
51	429 - Mixed Upland Conifers	High Density Pole	7.3	55	1-50	
52	4112 - Maple, Beech, Cherry Association	High Density Sapling	12.0	26		
53	6122 - Black Spruce	High Density Pole	4.2	70	81-110	
54	4112 - Maple, Beech, Cherry Association	Medium Density	17.6	45	1-50	
56	4112 - Maple, Beech, Cherry Association	High Density Sapling	13.0	26		
57	6139 - Mixed Lowland Forest	High Density Pole	36.1	76	81-110	
58	6115 - Lowland Ash	Low Density Pole	6.5	65	1-50	
59	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	13.6	79	81-110	
60	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	9.6	85	1-50	
61	4319 - Mixed Upland Forest	High Density Pole	8.1	68	81-110	
62	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	77.9	75	1-50	
63	4134 - Aspen, Spruce/Fir	High Density Pole	7.6	57	81-110	
64	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	266.0	88	81-110	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
65	4136 - Aspen, Mixed Conifer	High Density Pole	12.7	37	51-80	

Report 11 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	622 - Lowland Shrub	2.1	No	Unspecified	
2	330 - Low-Density Trees	1.4	No	Unspecified	
3	3301 - Low Density Deciduous Tree	2.8	Yes	Low (NonForested)	
8	330 - Low-Density Trees	10.8	Yes	Low (NonForested)	
11	623 - Emergent Wetland	3.7	No	Unspecified	
13	622 - Lowland Shrub	27.6	No	Unspecified	
26	622 - Lowland Shrub	5.6	No	Unspecified	Tag alder with a few trees mixed in.
37	3301 - Low Density Deciduous Tree	23.4	Yes	Low (NonForested)	
42	3102 - Grass	4.5	Yes	Medium (NonForested)	
55	622 - Lowland Shrub	72.9	No	Unspecified	
66	310 - Herbaceous Openland	4.5	No	Unspecified	

Data updated before 10:00 AM