



**TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 59 ENTRY YEAR: 2014

Compartment Acreage: 2909 County: Grand Traverse

Stand Examiner: Scott Lint

Legal Description: T25N, R10W, section 31
T25N, R11W, sections 26-29, 33-36

Management Goals: Provide for intensive timber management; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for dispersed forest-based recreational uses.

Soil and Topography: Mainly Rubicon and Kalkaska sands. Rifle peat is found in low areas on the west side of the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State and private ownerships are intermingled within the compartment. Areas to the west, north, and east are entirely private and predominantly agricultural. Ownership to the south (Wexford County) is a combination of state and private. There have been two recent acquisitions in the compartment; one was made just after the last compartment review, the W1/2SE of section 34. This parcel was previously inventoried as an addendum to the last inventory cycle. The state recently acquired the W1/2NE of section 35. This was the last private in holding that was completely surrounded by state land. There have been several subdivision developments in the surrounding area, mostly in former agricultural lands located north of the compartment. There is increasing evidence of parcel fragmentation around the compartment. While the area remains largely agricultural there are increasing numbers of single family residences being constructed on private property immediately adjacent to the compartment.

Unique, Natural Features: MNFI records indicate several past occurrences and potential for new occurrence of wood turtle, goshawk, and red shouldered hawk within the compartment.

Archeological, Historical, and Cultural Features: none known

Special Management Designations or Considerations:

Watershed and Fisheries Considerations: The North Branch of Anderson Creek, the South Branch of Anderson Creek, and several tributaries flow through Compartment 59. All are Designated Trout Streams. Both branches of Anderson Creek support naturally reproducing populations of brook trout. Per the Natural Rivers agreement between Forest Mgt. and Fisheries, any treatment prescribed must have the required buffers, which are 75' for both branches of Anderson Creek, and 50' for tributaries. We recommend managing for species other than aspen in the riparian corridor in order to discourage further beaver activity.

Wildlife Habitat Considerations: This compartment lies at the conjunction of several landscape types, a ground moraine to the northeast and several outwash plains to the southwest. Proximity to human populations makes this compartment popular for hunting and other wildlife related activities. Pine plantations and remnant hardwoods should be maintained in as diverse a condition as possible. Species diversity, cavity trees, and down logs should be promoted when planning timber harvests in these types. Aspen harvest blocks will add age class diversity, benefiting a variety of game species and the numerous hunters that use this area. These cuts should incorporate snags, residual green trees, and down logs as much as possible to benefit herps, songbirds, and small mammals as well as the game species. Threatened red-shouldered hawks have been found in this area, so habitat guidelines should be incorporated into nearby sales.

The interface between the more fertile moraine formation and the sandy, dry outwash plains has a series of NE/SW oriented draws and drainages with low, forested ridges between. The soils in these draws, are still well drained and growing a significant amount of little bluestem and other xeric species. Openings and savanna-like habitat can be maintained via burning or mowing. Opening maintenance will benefit species like coyote, goldfinch, savanna sparrow, wild turkey, meadow vole, and smooth green snake.

Wetlands and drainages are found throughout the compartment and should be managed for their riparian habitat values. Forested swamps, shrub swamps and beaver meadows provide habitat for species such as alder flycatcher, common yellowthroat, pileated woodpecker, sandhill crane, mink, winter wren, northern water snake, raccoon, and woodcock, as well as red-shouldered hawks and wintering deer.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse-textured till to the east. Glacial drift thickness varies between 400 and 1,000 feet. There is over 100 feet of local relief within the compartment. Beneath the glacial drift is the Mississippian Coldwater Shale. The Coldwater has no economic use. Gravel pits are located in Sections 26. Gravel potential in the compartment is considered good, especially in the east half. This compartment is located along the southern edge of the Silurian Niagaran reef trend. There has been development and production of oil and gas in the compartment and several leases are still in effect. The Antrim Shale has not been developed in this area, and may be too deep to be productive with current technology. Section 28 and 29 are mostly surface only. There are additional State minerals in the compartment.

Vehicle Access: There is a very poor quality bridge with a three ton weight limit crossing Anderson Creek on West County Line Rd. The bridge is on a County Rd and disposition/ownership of this bridge is either Grand Traverse or Wexford County. This bridge does impact access for logging and fire suppression equipment. In addition, the poor quality/design of this bridge is likely contributing to sedimentation in Anderson Creek.

Survey Needs: The compartment is well surveyed. There has been recent survey work in the compartment. There are no current survey needs.

Recreational Facilities and Opportunities: There are no recreational facilities or designated trails. Fishing, hunting, trapping, gathering, bird watching, snow shoeing and other dispersed recreational opportunities exist throughout the compartment.

Fire Protection: Local volunteer coverage provided by Grand Traverse Rural Fire initially from Kingsley with additional resources available from Grawn and Fife Lake. In addition, local volunteer response or assistance may be available from Buckley in Wexford County located just one mile south west of the

compartment. DNR response from Traverse City Field Office and additional resources if needed from the Manton Field Office are both approximately 30 minutes travel time from the compartment. The bridge on West County Line Road at Anderson Creek has a three ton weight limit and can not be used by fire suppression equipment.

Additional Compartment Information:

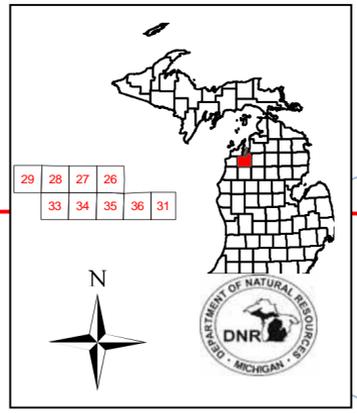
****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

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 on the attached compartment maps:**

Base feature information, stand numbers, cover types
Proposed treatments
Proposed road access system
Suggested potential old growth

Compartment: 59
 T25N R10W 31
 T25N R11W 26 27 28 29 33 34 35 36
 County: Grand Traverse
 Unit: Traverse City
 YOE: 2014
 Acres: 2,909 GIS Calculated
 Examiner: Scott Lint
 Map Revised: 5/22/2012
 Map Phase: Pre-Review



Cover Type & Treatment Map

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

Legend

- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Prescribed Burn
- Other Treatment - See Comments

Forest Stands

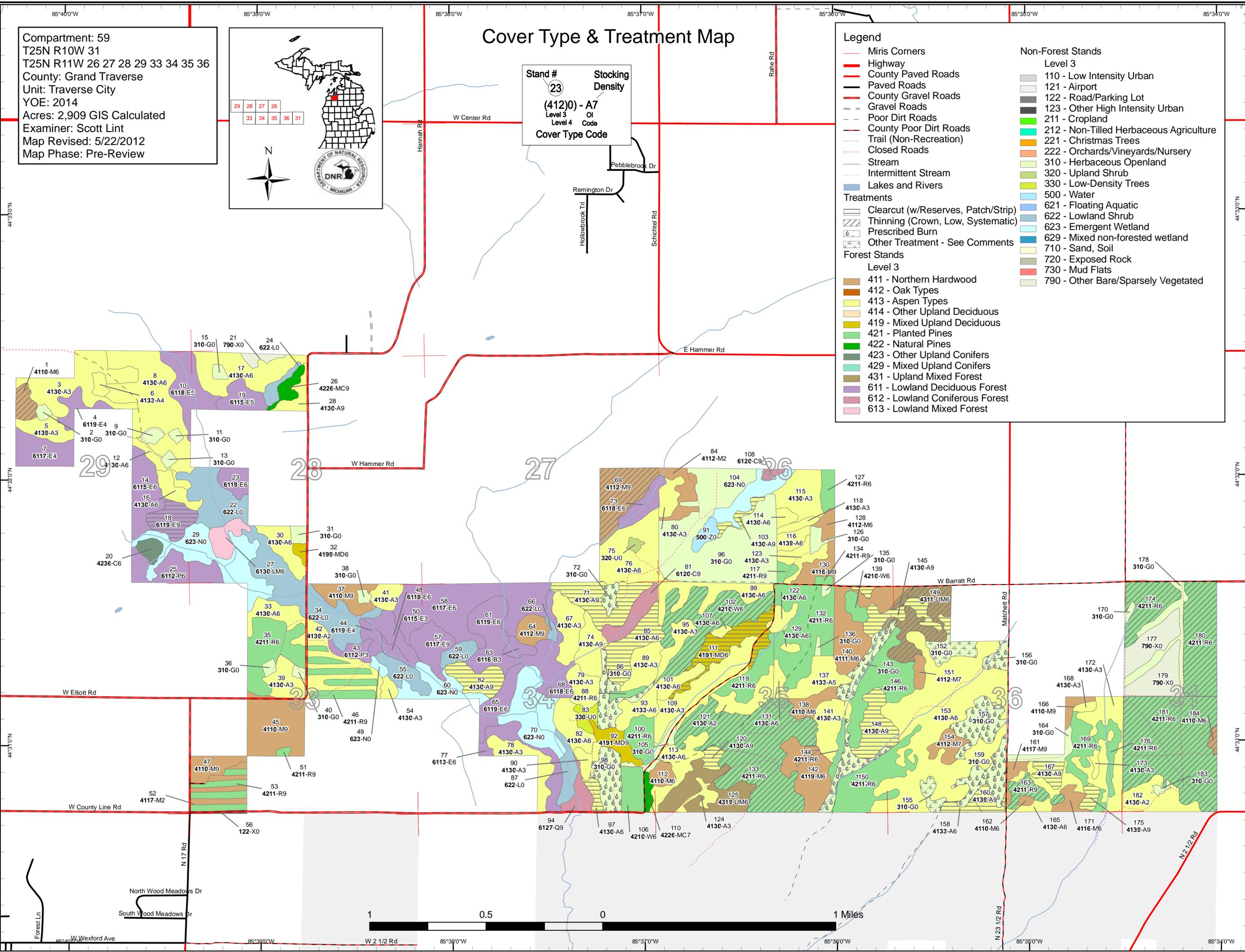
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 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

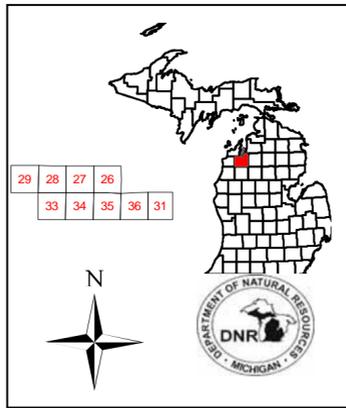
Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 121 - Airport
- 122 - Road/Parking Lot
- 123 - Other High Intensity Urban
- 211 - Cropland
- 212 - Non-Tilled Herbaceous Agriculture
- 221 - Christmas Trees
- 222 - Orchards/Vineyards/Nursery
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 621 - Floating Aquatic
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 710 - Sand, Soil
- 720 - Exposed Rock
- 730 - Mud Flats
- 790 - Other Bare/Sparsely Vegetated



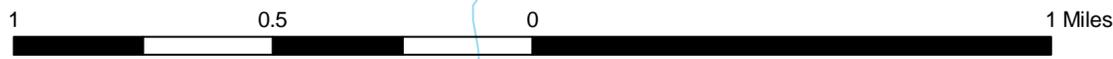
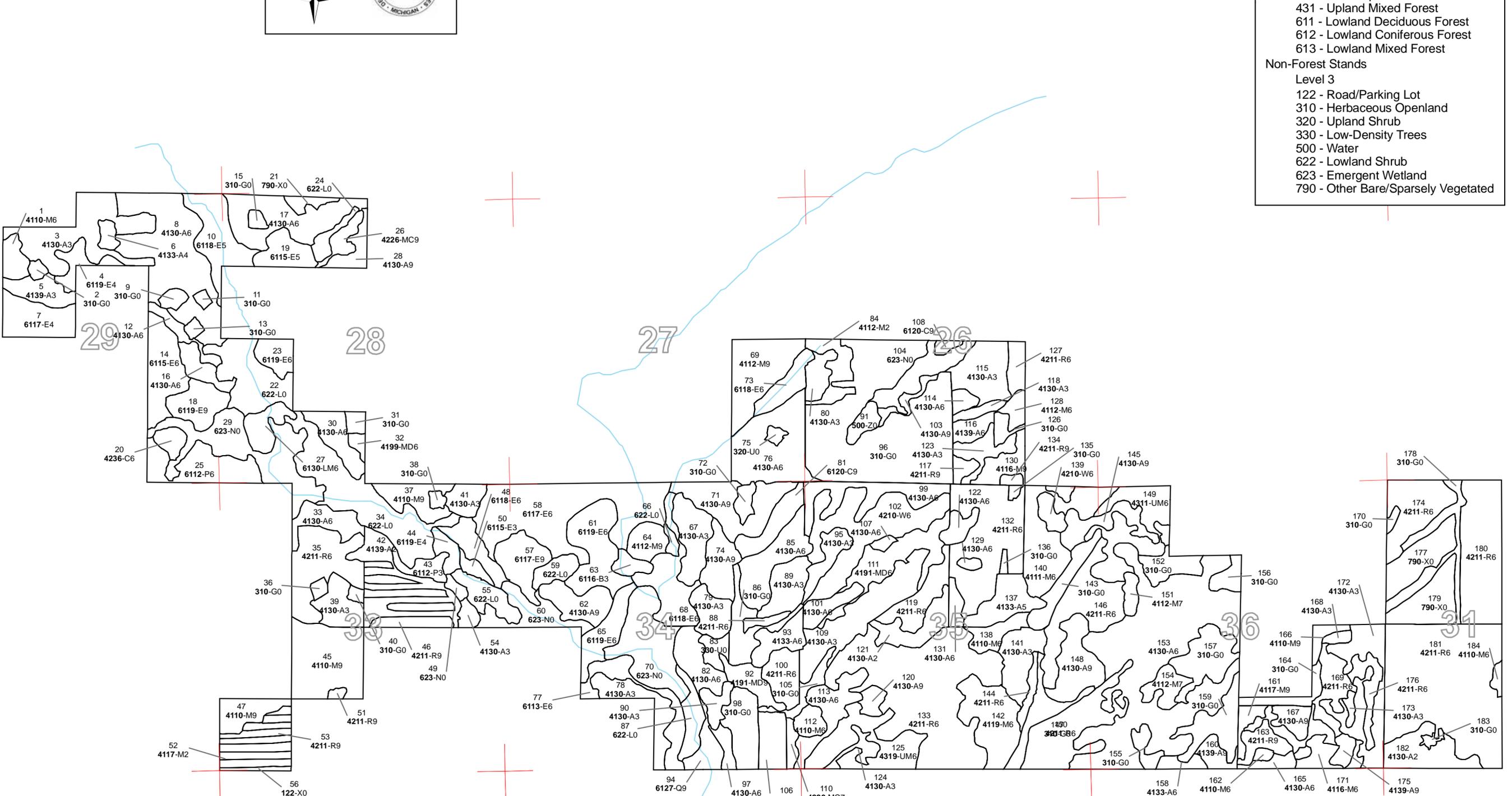
Compartment: 59
 T25N R10W 31
 T25N R11W 26 27 28 29 33 34 35 36
 County: Grand Traverse
 Unit: Traverse City
 YOE: 2014
 Acres: 2,909 GIS Calculated
 Examiner: Scott Lint
 Map Revised: 5/22/2012
 Map Phase: Pre-Review



Dedicated & Proposed Special Conservation Area Map

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

- Legend**
- Miris Corners
 - Special Conservation Areas
 - Cold Water Streams
 - Stand Boundaries
 - Forest Stands
 - Level 3
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other 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
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 790 - Other Bare/Sparsely Vegetated



85°40'0"W 85°39'0"W 85°38'0"W 85°37'0"W 85°36'0"W 85°35'0"W 85°34'0"W
 44°33'0"N 44°32'0"N 44°31'0"N

Table 1 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	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
Aspen	243	18	282	172	51	76	73	39	0	0	0	0	0	0	954
Bare/Sparsely Vegetated	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Cedar	0	0	0	0	0	0	0	0	15	0	5	0	0	0	20
Herbaceous Openland	293	0	0	0	0	0	0	0	0	0	0	0	0	0	293
Low-Density Trees	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Aspen/Balsam Poplar	7	0	0	0	0	0	24	0	0	0	0	0	0	0	31
Lowland Conifers	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
Lowland Deciduous	0	0	4	0	12	0	59	75	167	0	0	0	0	0	317
Lowland Mixed Forest	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11
Lowland Shrub	117	0	0	0	0	0	0	0	0	0	0	0	0	0	117
Marsh	113	0	0	0	0	0	0	0	0	0	0	0	0	0	113
Mixed Upland Deciduous	0	0	0	2	0	25	0	0	0	10	0	0	0	0	38
Natural Mixed Pines	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10
Northern Hardwood	23	0	0	0	0	0	44	41	97	56	0	0	0	0	261
Paper Birch	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Red Pine	0	0	51	0	176	320	0	0	0	0	0	0	0	0	546
Upland Mixed Forest	0	0	0	0	0	61	0	0	0	0	0	0	0	0	61
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
White Pine	0	0	0	0	0	65	0	0	0	0	0	0	0	0	65
Total	854	18	337	179	239	567	209	154	279	66	5	0	0	0	2909



Table 2 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2014

Compartment 059
Total Compartment Acres: 2909

Acres by Treatment Type

Commercial Harvest - 587	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 105	Other - 0
Habitat Cut - 2	Opening Maintenance - 16	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	140	0	0	0	0	0		140
Lowland Deciduous	15	0	0	0	0	0		15
Mixed Upland Deciduous	25	0	0	0	0	0		25
Northern Hardwood	2	0	0	0	40	0		42
Red Pine	0	0	0	0	288	0		288
Upland Mixed Forest	0	0	0	0	31	0		31
White Pine	0	0	0	0	47	0		47
Total	183	0	0	0	406	0		589



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
69	61059069-Cut	30.2	4112 - Maple, Beech, Cherry Association	High Density Log	96	141-170	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin to release good quality sugar maple crowns, remove larger poor quality sugar maple while retaining some den trees, this is the first treatment in this stand and emphasis should be on crown release more than regeneration. Stand contains minor components of beech and ash that should be treated in accordance with BBD and ash guidelines. Maintain stand diversity, retain as much basswood and cherry as possible.</p> <p><u>Specs:</u></p> <p><u>Other</u> Last entry period there was an active red shouldered hawk nest in this stand, still evidence of an old stick nest in a large beech tree in the northwest part of stand. Work with WLD to determine status of nest prior to sale preparation. Access to stand is from the east at the very northeast corner of the stand.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
71	61059071-Cut	27.6	4130 - Aspen	High Density Log	55		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Clearcut to regenerate aspen, retain balsam fir, beech, and black cherry.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
85	61059085-Cut	23.1	4130 - Aspen	High Density Pole	61		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Retain white pine and a few good quality sugar maple for potential future seed source, retain most if not all balsam fir.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
102	61059102-Cut	47.3	42101 - Planted White Pine, Mixed Deciduous	High Density Pole	52	200+	Harvest	Crown Thinning	42101 - Planted White Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Row thin white pine, create one half to one acre, or larger if possible patch cuts of aspen and maple, retain black cherry for mast and future</p> <p><u>Specs:</u> coarse woody material, row thinning spacing to be determined during sale prep, some areas removing every third row will work, other areas may be to narrow and may require two rows to be removed.</p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
111 61059111-Cut	25.2	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	52		Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal

Prescription: Clearcut to regenerate aspen, retain some good quality individual white pine and sugar maple as well as some dense pockets of white pine where possible. Retain black cherry and beech.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

120 61059120-Cut	4.6	4130 - Aspen	High Density Log	65		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription: Clearcut to regenerate aspen, expand into adjacent pine stand where possible, retain scattered pine where possible, small stand use individual tree retention.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

133 61059133-Cut	102.7	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	52	171-200	Harvest	Crown Thinning	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription: Second thinning, basal area somewhat variable, thin by marking to remove poor quality and suppressed trees, retain hardwood, regenerate aspen in patches where possible. residual basal area target 110-130.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

142 61059142-Cut	2.2	4119 - Mixed Northern Hardwoods	High Density Pole	63	81-110	Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal
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Prescription: Clearcut to regenerate aspen and create some aspen/red maple browse, combine with adjacent pine treatment, small acreage habitat cut no retention. Create some large coarse woody debris if possible.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
145 61059145-Cut	17.0	4130 - Aspen	High Density Log	75		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Clearcut to regenerate aspen, retain some white pine and sugar maple.

Specs:

Other Comments: Consider setting up sale in conjunction with stand 149 to maximize aspen regeneration.

Next Steps:

Proposed Start Date: 10/01/2013

148 61059148-Cut	21.6	4130 - Aspen	High Density Log	69		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut to regenerate aspen, retain some red pine and beech, expand into adjacent red pine where possible, there may be an opportunity to

Specs: retain a small 1-2 acres size patch of maple near the middle of the stand.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

149 61059149-Cut	30.9	4311 - Pine, Aspen Mix	High Density Pole	52	200+	Harvest	Crown Thinning	4311 - Pine, Aspen Mix	Cmpt. Review Proposal
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Prescription Thin areas of red pine, regenerate aspen where possible, retain areas dominated by hardwood and also retain white pine. This stand has not been row thinned, rows are somewhat irregular and additional trees may need to be marked for access. Residual basal area should be 110-130 in well stocked pine areas, and will be considerably less in areas dominated by aspen.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

158 61059158-Cut	4.1	4133 - Aspen, Mixed Pine	High Density Pole	56		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut to regenerate aspen, small acreage, use single tree retention, retain white pine and a few single stem red maple, treat with adjacent stand 160.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
160 61059160-Cut	6.2	4139 - Aspen, Mixed Deciduous	High Density Log	74	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Clearcut to regenerate aspen, small acreage, use single tree retention, retain white pine and a few single stem red maple, treat with adjacent
Specs: stand 158.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2013

163 61059163-Cut	9.8	42110 - Planted Red Pine	High Density Log	52	200+	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Second thinning; this stand was row thinned last entry period, thin to remove poor quality and suppressed trees , narrow rows in spots so be
Specs: mindrul of row width and access when marking, small patch of aspen poles in east part of stand should be clearcut to create a small patch of aspen regeneration.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2013

167 61059167-Cut	7.3	4130 - Aspen	High Density Log	56		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut to regenerate aspen, require chipping to help reduce heavy red maple sub-canopy, use single tree retention concentrating on red pine to
Specs: create some small patches of thermal cover as well as scattered individual trees.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2013

174 61059174-Cut	24.7	42110 - Planted Red Pine	High Density Pole	45	171-200	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Second thinning; this stand has been row thinned, reduce volume by approximately one third, mark to remove poor quality and suppressed trees,
Specs: mark additional volume as needed to achieve desired residual basal area of 110-130.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2013

175 61059175-Cut	4.4	4139 - Aspen, Mixed Deciduous	High Density Log	66	81-110	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Clearcut to regenerate aspen, retain small area of hardwood in northeast corner of stand, in addition mark a few good quality single stem maple
Specs: for retention if possible, maple generally poor quality with many multiple stem trees present.

Other Access to stand for timber sale will be through Wexford County to the south near southeast part of stand.
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2013



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
180	61059180-Cut	45.1	42110 - Planted Red Pine	High Density Pole	45	171-200	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription: Second thinning; this stand has been row thinned, reduce volume by approximately one third, mark to remove poor quality and suppressed trees, mark additional volume as needed to achieve desired residual basal area of 110-130.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

181	61059181-Cut	105.9	42110 - Planted Red Pine	High Density Pole	41	171-200	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription: First thinning; thin by removing every third row.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2013

184	61059184-Cut	2.2	4110 - Sugar Maple Association	High Density Pole	85	81-110	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription: Thin from below to remove poor quality and suppressed trees. Reduce the amount of ironwood in stand. Release good quality sugar maple.

Other Comments: This is a small hardwood stand surrounded by pine plantation. If there is local interest, treat stand for small firewood sale.

Next Steps:

Proposed Start Date: 10/01/2013

72	NF_61059072-Burn	4.4	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
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Prescription: Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.

Other Comments:

Next Steps: Consider seeding in some native grasses/forbs, as well.

Proposed Start Date: Unspecified



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
86	NF_61059086- Burn	14.3	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
<p><u>Prescription</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> Consider seeding in some native grasses/forbs, as well. <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>										
98	NF_61059098- Burn	17.5	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
<p><u>Prescription</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> Consider also seeding in native forbs and grasses as needed. <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>										
143	NF_61059143- Burn	12.3	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
<p><u>Prescription</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> Consider seeding in some native grasses/forbs, as well. <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>										
147	NF_61059147- Burn	12.7	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
<p><u>Prescription</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> Consider seeding in some native grasses/forbs, as well. <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>										
156	NF_61059156- Burn	5.8	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
<p><u>Prescription</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> Consider seeding in additional native forbs/grasses as needed. <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
157	NF_61059157- Burn	20.3	31022 - Warm Season Grass				Prescribed Burn	Unspecified	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Other Comments:</u> Part of this opening was a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture mix (i.e. clover/alfalfa).</p> <p><u>Next Steps:</u> Periodic maintenance such as mowing, fertilization, reseeding, burning, and/or removal of woody encroachment.</p> <p><u>Proposed Start Date:</u> Unspecified</p>										
159	NF_61059159- Burn	17.7	31022 - Warm Season Grass				Prescribed Burn	Unspecified	31022 - Warm Season Grass	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Burn this stand at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.</p> <p><u>Other Comments:</u> Part of this opening was a planted wildlife food plot several inventory cycles ago. Rejuvenate planted portion as needed.</p> <p><u>Next Steps:</u> Periodic maintenance such as mowing, fertilization, reseeding, burning, and/or removal of woody encroachment.</p> <p><u>Proposed Start Date:</u> Unspecified</p>										
152	NF_61059152- NonFor	10.3	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	31021 - Cool Season Grass	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Part of this opening was a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture mix (i.e. clover/alfalfa).</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.</p> <p><u>Proposed Start Date:</u> Unspecified</p>										
155	NF_61059155- NonFor	5.2	3104 - Degraded				Non-Forest Management	Other - Specify	31021 - Cool Season Grass	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> This opening is a traditional wildlife planting. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture mix (i.e. clover/alfalfa).</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.</p> <p><u>Proposed Start Date:</u> Unspecified</p>										

**Total Treatment
Acreage Proposed: 662.7**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1 61059001-Cut	7.2	4110 - Sugar Maple Association	High Density Pole	75	141-170	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription thin to remove poor quality stems, maintain species diversity, release good quality crop trees, residual basal area should be approximately 90 square feet

Other permission for access across private will be needed
Comment:

Next
Steps:

Proposed
Start Date: 10/01/2013

Limiting Factor and No 2B: Unknown if access through
Treatment Reason adjacent landowner(s) is possible

18 61059018-Cut	15.3	6119 - Mixed Lowland Deciduous Forest	High Density Log	69		Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
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Prescription Clearcut to regenerate quaking aspen and create some deer browse, emerald ash borer is present in stand so remove almost all black ash within the treatment area, retain a few for snag creation and also retain some balsam fir

Other permission for access across private will be needed, lowland type with sensitive soils, but seasonally operable with the right type of equipment
Comment:

Next
Steps:

Proposed
Start Date: 10/01/2013

Limiting Factor and No 2G: Too wet (sensitive soils, does
Treatment Reason not include access issues)

18 61059018-Cut	15.3	6119 - Mixed Lowland Deciduous Forest	High Density Log	69		Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
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Prescription Clearcut to regenerate quaking aspen and create some deer browse, emerald ash borer is present in stand so remove almost all black ash within the treatment area, retain a few for snag creation and also retain some balsam fir

Other permission for access across private will be needed, lowland type with sensitive soils, but seasonally operable with the right type of equipment
Comment:

Next
Steps:

Proposed
Start Date: 10/01/2013

Limiting Factor and No 2G: Too wet (sensitive soils, does
Treatment Reason not include access issues)



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62 61059062-Cut	15.6	4130 - Aspen	High Density Log	74		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription Specs:</u> Clearcut to regenerate aspen and create some red maple browse, emerald ash borer is present in the stand so only retain a few ash for purposes of snag creation where desired, retain conifers.									
<u>Other Comment:</u> Access to this stand will be difficult and will require the construction of a skid trail or road through stands 78, 77, and 65. Stand 78 is an upland stand, however stands 77 and 65 are lowland types. The use of a temporary bridge to cross Anderson Creek will be required to treat this stand.									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> 10/01/2013									
<u>Limiting Factor and No Treatment Reason</u> 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) temporary bridge required for access									

62 61059062-Cut	15.6	4130 - Aspen	High Density Log	74		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription Specs:</u> Clearcut to regenerate aspen and create some red maple browse, emerald ash borer is present in the stand so only retain a few ash for purposes of snag creation where desired, retain conifers.									
<u>Other Comment:</u> Access to this stand will be difficult and will require the construction of a skid trail or road through stands 78, 77, and 65. Stand 78 is an upland stand, however stands 77 and 65 are lowland types. The use of a temporary bridge to cross Anderson Creek will be required to treat this stand.									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> 10/01/2013									
<u>Limiting Factor and No Treatment Reason</u> 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)									

62 61059062-Cut	15.6	4130 - Aspen	High Density Log	74		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription Specs:</u> Clearcut to regenerate aspen and create some red maple browse, emerald ash borer is present in the stand so only retain a few ash for purposes of snag creation where desired, retain conifers.									
<u>Other Comment:</u> Access to this stand will be difficult and will require the construction of a skid trail or road through stands 78, 77, and 65. Stand 78 is an upland stand, however stands 77 and 65 are lowland types. The use of a temporary bridge to cross Anderson Creek will be required to treat this stand.									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> 10/01/2013									
<u>Limiting Factor and No Treatment Reason</u> 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)									



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62 61059062-Cut	15.6	4130 - Aspen	High Density Log	74		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut to regenerate aspen and create some red maple browse, emerald ash borer is present in the stand so only retain a few ash for purposes of snag creation where desired, retain conifers.

Other Comment: Access to this stand will be difficult and will require the construction of a skid trail or road through stands 78, 77, and 65. Stand 78 is an upland stand, however stands 77 and 65 are lowland types. The use of a temporary bridge to cross Anderson Creek will be required to treat this stand.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)

97 61059097-Cut	4.5	4130 - Aspen	High Density Pole	56		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Specs: Clearcut to regenerate aspen and create some early successional edge habitat, using individual tree retention, retain balsam and white pine.

Other Comment:

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2G: Too wet (sensitive soils, does not include access issues)

97 61059097-Cut	4.5	4130 - Aspen	High Density Pole	56		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Specs: Clearcut to regenerate aspen and create some early successional edge habitat, using individual tree retention, retain balsam and white pine.

Other Comment:

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2G: Too wet (sensitive soils, does not include access issues)

Table 4 -- 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
103	61059103-Cut	4.4	4130 - Aspen	High Density Log	67		Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut with no retention, retain conifers but there are not enough present to fulfill retention guidance, this stand is small in size and narrow in shape so that retention guidelines need to be waived in this case.

Other Comment:

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2G: Too wet (sensitive soils, does not include access issues)

103	61059103-Cut	4.4	4130 - Aspen	High Density Log	67		Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal
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Prescription Specs: Clearcut with no retention, retain conifers but there are not enough present to fulfill retention guidance, this stand is small in size and narrow in shape so that retention guidelines need to be waived in this case.

Other Comment:

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2G: Too wet (sensitive soils, does not include access issues)

Total Treatment Acreage Proposed: 117.8

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

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
61043_OutOfY OE-Cut	2.1					Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal - Incomplete

Prescription

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

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

Comments:

Next

Steps:

Proposed

Start Date: 09/01/2009

61231_OutOfY OE-Thin	4.6			0		Harvest	Low Thinning	4122 - Oak, Pine	Cmpt. Review Proposal
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Prescription Within harvest area, remove all aspen. Heavily thin oak and maple to a residual BA of about 50 sf. Leave retention in patches or strips sufficient to meet minimum retention goals.

Other Topography is rather hilly. Combine with treatment in Compartment 133.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 6.7**

Stand	Traverse City Mgt. Unit			5 – Forested Stands		Compartment: 059	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014	
1	4110 - Sugar Maple Association	High Density Pole	7.2	75	141-170		
3	4130 - Aspen	High Density Sapling	39.4	20			
4	6119 - Mixed Lowland Deciduous Forest	Low Density Pole	8.1	75			This stand is a small fragment of a much larger lowland stand that covers both state and private ownership.
5	4139 - Aspen, Mixed Deciduous	High Density Sapling	11.5	20			small area south of adjacent well pad that is dominated by black cherry regeneration
6	4133 - Aspen, Mixed Pine	Low Density Pole	3.7	52			
7	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	19.9	75			
8	4130 - Aspen	High Density Pole	61.1	37			
10	6118 - Lowland Deciduous with Cedar	Medium Density Pole	24.5	85			large paper birch present, Anderson Creek bisects stand, dense shrub layer in spots, stand is riparian influence area along creek
12	4130 - Aspen	High Density Pole	6.2	27			
14	6115 - Lowland Ash	High Density Pole	23.6	69			New stand added.
16	4130 - Aspen	High Density Pole	8.7	41			age was current last inventory cycle,
17	4130 - Aspen	High Density Pole	32.7	37			area has several small vernal ponds
18	6119 - Mixed Lowland Deciduous Forest	High Density Log	15.3	69			
19	6115 - Lowland Ash	Medium Density Pole	12.4	42			
20	42360 - Upland Cedar	High Density Pole	5.5	103			
23	6119 - Mixed Lowland Deciduous Forest	High Density Pole	9.0	60			
25	6112 - Lowland Aspen	High Density Pole	24.4	69			stand edge was from visible across Anderson Creek



S t a n d	Traverse City Mgt. Unit		5 – Forested Stands			Compartment: 059	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014	
26	42260 - Natural Pine, Mixed Deciduous	High Density Log	6.3	59			unique stand (large natural white pine) age of wp ranges from 25-85+, stand age estimated as an average of that and as the same as adjacent stand to reflect estimated average age, however older large super canopy trees are a component of this stand
27	6130 - Fir, Aspen, Maple	High Density Pole	10.6	58			small foot bridge crosses creek in stand
28	4130 - Aspen	High Density Log	7.6	59			good quality site, a few trillium present (previous inventory)
30	4130 - Aspen	High Density Pole	13.1	38			
32	4199 - Other Mixed Upland Deciduous	High Density Pole	2.4	38			
33	4130 - Aspen	High Density Pole	12.7	22			stand is transitioning to pole size, a few large white pine, birch is located along north edge of stand
35	42110 - Planted Red Pine	High Density Pole	32.3	51	141-170		see management comments
37	4110 - Sugar Maple Association	High Density Log	13.6	97	81-110		prickly ash and musclemwood subcanopy located along perimeter adjacent to lowland type
39	4130 - Aspen	High Density Sapling	13.2	22			
41	4130 - Aspen	High Density Sapling	8.0	18			
42	4139 - Aspen, Mixed Deciduous	Medium Density	27.1	8			very good aspen regen in places, black cherry and red maple regen fairly well distributed, a few open areas with light regen, very little pine regen present
43	6112 - Lowland Aspen	High Density Sapling	7.0	8			
44	6119 - Mixed Lowland Deciduous Forest	Low Density Pole	5.8	74			age was current during last inventory cycle, operable areas to the west of this stand were treated last entry period, Anderson Creek flows along the east boundary of the stand
45	4110 - Sugar Maple Association	High Density Log	39.3	86	51-80		age was current from last inventory cycle, need new basal area data
46	42110 - Planted Red Pine	High Density Log	19.3	57	111-140		see management comments
47	4110 - Sugar Maple Association	High Density Log	12.3	95	81-110		stand treated 2 entry periods ago



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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6118 - Lowland Deciduous with Cedar	High Density Pole	11.7	86	111-140	traces of elm, paper birch, and yellow birch in canopy
6115 - Lowland Ash	High Density Sapling	3.6	20		stand appears to have originated from windthrow, possibly in combination with past beaver flooding activity, still some dead standing snags present
42110 - Planted Red Pine	High Density Log	1.3	57	111-140	age was current during last inventory cycle, small piece of red pine extending onto state land from adjacent private, there was a timber trespass in this stand last entry period that was resolved, adjacent landowner, thinned every other row of this stand along with private sale.
4117 - Mixed N. Hardwood - Pine	Medium Density	10.9	8		jack pine strips that were clearcut in 2003, area was not replanted, natural regeneration
42110 - Planted Red Pine	High Density Log	14.1	57	141-170	stand thinned last entry period, assess along with adjacent regeneration strips to determine management direction (red pine vs. hardwood)
4130 - Aspen	High Density Sapling	3.6	8		stand is same origin as 56, but upland, bracken fern is predominant ground cover
6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	17.0	84	111-140	
6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	70.3	84	141-170	traces of yellow birch and elm present in canopy
6119 - Mixed Lowland Deciduous Forest	High Density Pole	28.6	84		
4130 - Aspen	High Density Log	15.6	74		
6116 - Lowland Birch	High Density Sapling	5.0	33		
4112 - Maple, Beech, Cherry Association	High Density Log	9.5	74	81-110	
6119 - Mixed Lowland Deciduous Forest	High Density Pole	14.9	84	81-110	
4130 - Aspen	High Density Sapling	17.8	8		traces of pole size balsam fir scattered throughout canopy
6118 - Lowland Deciduous with Cedar	High Density Pole	23.6	74		
4112 - Maple, Beech, Cherry Association	High Density Log	30.2	96	141-170	big tooth aspen concentrated along south east edge/slope

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059

Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
71	4130 - Aspen	High Density Log	27.6	55		traces of paper birch and beech in canopy
73	6118 - Lowland Deciduous with Cedar	High Density Pole	11.0	63	111-140	balsam fir sub canopy is patchy, traces of paper birch in canopy, springs and seeps present in stand, there is a flowing stream running through stand, it is approximately one foot wide and has no well defined stream bed
74	4130 - Aspen	High Density Log	15.2	63		traces of paper birch and black cherry in canopy, there is a creek flowing east/west through center of stand
76	4130 - Aspen	High Density Pole	38.9	41		traces of paper birch in canopy, some autumn olive encroachment in sub canopy around old well site
77	6113 - Lowland Maple	High Density Pole	17.4	72	81-110	
78	4130 - Aspen	High Density Sapling	16.3	8		
79	4130 - Aspen	High Density Sapling	11.8	8		
80	4130 - Aspen	High Density Sapling	8.0	8		
81	6120 - Lowland Cedar	High Density Log	12.8	87		traces of paper birch in canopy, seeps and springs present in stand, small stream flowing through stand approximately one foot wide with no well defined channel, numerous area of blow down in stand
82	4130 - Aspen	High Density Pole	14.6	55		
84	4112 - Maple, Beech, Cherry Association	Medium Density	12.1	8		
85	4130 - Aspen	High Density Pole	23.1	61		
88	42110 - Planted Red Pine	High Density Pole	2.9	52	141-170	
89	4130 - Aspen	High Density Sapling	14.6	23		traces of white pine in canopy
90	4130 - Aspen	High Density Sapling	6.2	8		
92	4191 - Mixed Upland Deciduous with Conifer	High Density Log	10.2	95	81-110	Traces of black cherry, beech, ash, red maple in canopy.

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059

Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
93	4133 - Aspen, Mixed Pine	High Density Pole	11.5	24		overall size class is pole because white pine makes up more than 30% of the canopy, but aspen size is sapling beginning to transition to pole
94	6127 - Lowland Pine	High Density Log	8.9	66	81-110	traces of tamarack, paper birch, and hemlock in canopy
95	4130 - Aspen	High Density Sapling	9.6	6		
97	4130 - Aspen	High Density Pole	4.5	56		
99	4130 - Aspen	High Density Pole	21.6	35		quaking aspen is only in the western most part of the stand
100	42110 - Planted Red Pine	High Density Pole	13.1	52	141-170	
101	4130 - Aspen	High Density Pole	8.4	34		
102	42101 - Planted White Pine, Mixed Deciduous	High Density Pole	47.3	52	200+	
103	4130 - Aspen	High Density Log	4.4	67		
106	42100 - Planted White Pine	High Density Pole	12.0	52	171-200	
107	4130 - Aspen	High Density Pole	1.9	34		
108	6120 - Lowland Cedar	High Density Log	2.1	85	171-200	canopy has traces of quaking aspen, paper and yellow birch, black ash
109	4130 - Aspen	High Density Sapling	35.8	6		
110	42260 - Natural Pine, Mixed Deciduous	Low Density Log	3.7	52		New stand added.
111	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	25.2	52		canopy contains traces of black cherry and beech
112	4110 - Sugar Maple Association	High Density Pole	6.1	87	81-110	
113	4130 - Aspen	High Density Pole	17.9	23		
114	4130 - Aspen	High Density Pole	3.7	43		white pine in sub canopy is concentrated along north edge of stand

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4130 - Aspen	High Density Sapling	21.6	5		
4139 - Aspen, Mixed Deciduous	High Density Pole	6.5	57	81-110	
42110 - Planted Red Pine	High Density Log	3.6	50	141-170	see management comments
4130 - Aspen	High Density Sapling	3.9	5		
42110 - Planted Red Pine	High Density Pole	15.5	52	141-170	
4130 - Aspen	High Density Log	4.6	65		New stand added.
4130 - Aspen	Medium Density	14.2	6		
4130 - Aspen	High Density Pole	6.1	35		
4130 - Aspen	High Density Sapling	10.3	5		
4130 - Aspen	High Density Sapling	5.3	14		
4319 - Mixed Upland Forest	High Density Pole	30.5	52	111-140	see management comments
42110 - Planted Red Pine	High Density Pole	6.6	50	141-170	see management comments
4112 - Maple, Beech, Cherry Association	High Density Pole	5.0	75	81-110	Traces of black cherry and white ash in canopy. Ash infested with EAB, wikk be gone from stand within 1-2 years.
4130 - Aspen	High Density Pole	1.8	30		
4116 - Mixed N. Hardwood - Aspen	High Density Log	10.2	78	81-110	see management comments
4130 - Aspen	High Density Pole	4.5	30		
42110 - Planted Red Pine	High Density Pole	51.0	27	141-170	
42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	102.7	52	171-200	

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
134	42110 - Planted Red Pine	High Density Log	1.9	50	141-170	see management comments
137	4133 - Aspen, Mixed Pine	Medium Density Pole	16.5	35		white pine in sub canopy is patchy, there is an older clone of bigtooth aspen on the eastern tip of stand located on a hill and east aspect
138	4110 - Sugar Maple Association	High Density Pole	9.2	68	81-110	red pine concentrated along south edge of stand near adjacent plantation
139	42101 - Planted White Pine, Mixed Deciduous	High Density Pole	5.5	52	111-140	deer are using stand for winter thermal cover
140	4111 - S.Maple, Hard Mast Association	High Density Pole	33.6	83	81-110	traces of black cherry, basswood, white pine in canopy
141	4130 - Aspen	High Density Sapling	17.3	7		
142	4119 - Mixed Northern Hardwoods	High Density Pole	28.5	63	81-110	
144	42110 - Planted Red Pine	High Density Pole	4.4	52	111-140	
145	4130 - Aspen	High Density Log	17.0	75		New stand added.
146	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	33.2	52	141-170	
148	4130 - Aspen	High Density Log	21.6	69		
149	4311 - Pine, Aspen Mix	High Density Pole	30.9	52	200+	
150	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	33.5	52	141-170	aspen saplings are concentrated in one patch, southern part of stand, this area was treated with adjacent stand in Wexford County by Manton Field Office
151	4112 - Maple, Beech, Cherry Association	Low Density Log	4.4	62		failed oak planting
153	4130 - Aspen	High Density Pole	135.1	23		sub canopy is patchy, ironwood and white pine somewhat patchy, black cherry fairly uniform throughout
154	4112 - Maple, Beech, Cherry Association	Low Density Log	9.0	73		failed oak planting
158	4133 - Aspen, Mixed Pine	High Density Pole	4.1	56		

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4139 - Aspen, Mixed Deciduous	High Density Log	6.2	74	81-110	
4117 - Mixed N. Hardwood - Pine	High Density Log	5.0	87	81-110	generally poor quality
4110 - Sugar Maple Association	High Density Pole	1.6	62	81-110	canopy contains traces of white ash, bigtooth aspen, red maple, and black cherry
42110 - Planted Red Pine	High Density Log	9.8	52	200+	sub canopy maple is heavily browsed
4130 - Aspen	High Density Pole	4.3	34	51-80	
4110 - Sugar Maple Association	High Density Log	4.3	86	51-80	recent survey indicates small trespass by farmer to north, could plant several rows of conifer to establish property line
4130 - Aspen	High Density Log	7.3	56		
4130 - Aspen	High Density Sapling	2.3	18		
42110 - Planted Red Pine	High Density Pole	13.9	51	141-170	
4116 - Mixed N. Hardwood - Aspen	High Density Pole	6.9	86	81-110	
4130 - Aspen	High Density Sapling	39.2	8		
4130 - Aspen	High Density Sapling	2.2	18		sub canopy heavily browsed
42110 - Planted Red Pine	High Density Pole	24.7	45	171-200	
4139 - Aspen, Mixed Deciduous	High Density Log	4.4	66	81-110	
42110 - Planted Red Pine	High Density Pole	11.2	51	141-170	
42110 - Planted Red Pine	High Density Pole	45.1	45	171-200	
42110 - Planted Red Pine	High Density Pole	105.9	41	171-200	black cherry and maple somewhat concentrated more heavily in the nw part of stand
4130 - Aspen	Medium Density	19.6	23		there are a few oaks present in canopy , a few small openings in stand with bluestem

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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 059
Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
184	4110 - Sugar Maple Association	High Density Pole	2.2	85	81-110	stand also contains a few ash, basswood, black cherry, ironwood, and beech trees



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	310 - Herbaceous Openland	2.2	No	Unspecified	
9	310 - Herbaceous Openland	3.4	No	Unspecified	
11	310 - Herbaceous Openland	1.6	No	Unspecified	
13	310 - Herbaceous Openland	2.0	No	Unspecified	shrub planting, looks like hawthorne perhaps, all browsed to a 1 foot tall bonsai shape, but still alive, couple of rows, north end of opening
15	310 - Herbaceous Openland	2.2	No	Unspecified	
21	790 - Other Bare/Sparsely Vegetate	4.0	No	Unspecified	
22	6220 - Alder/willow	29.1	No	Unspecified	
24	6229 - Mixed lowland shrub	5.1	No	Unspecified	
29	6239 - Mixed Emergent Wetland	42.7	No	Unspecified	
31	310 - Herbaceous Openland	3.2	No	Unspecified	old well site, scattered scotch pine throughout opening
34	6220 - Alder/willow	51.3	No	Unspecified	tag alder
36	310 - Herbaceous Openland	2.0	No	Unspecified	
38	310 - Herbaceous Openland	1.9	No	Unspecified	abandoned well site
40	310 - Herbaceous Openland	1.7	No	Unspecified	
49	623 - Emergent Wetland	2.4	No	Unspecified	
55	6229 - Mixed lowland shrub	11.6	No	Unspecified	willow, dogwood, alder
56	122 - Road/Parking Lot	1.9	No	Unspecified	road
59	6220 - Alder/willow	7.3	No	Unspecified	tag alder



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
60	623 - Emergent Wetland	16.8	No	Unspecified	
66	6220 - Alder/willow	2.1	No	Unspecified	
70	623 - Emergent Wetland	35.2	No	Unspecified	
72	31022 - Warm Season Grass	4.4	No	High (NonForested)	
75	3202 - Autumn Olive/Honeysuckle	2.0	No	Unspecified	old well site successfully planted to autumn olive
83	3303 - Mixed Low Density Trees	5.6	No	Unspecified	numerous upland shrub species present, hawthorne, juneberry, black cherry, opening is likely of interest to WLD.
86	31022 - Warm Season Grass	14.3	No	High (NonForested)	little bluestem
87	6220 - Alder/willow	10.2	No	Unspecified	
91	50 - Water	5.8	No	Unspecified	seasonally flooded/emergent wetland
96	310 - Herbaceous Openland	112.8	Yes	Red Pine	stand has been planted to red pine
98	31022 - Warm Season Grass	17.5	No	High (NonForested)	little bluestem
104	623 - Emergent Wetland	16.1	No	Unspecified	tag alder/balsam fir poles
105	310 - Herbaceous Openland	6.5	No	Unspecified	
126	310 - Herbaceous Openland	3.9	No	Unspecified	
135	310 - Herbaceous Openland	1.2	No	Unspecified	
136	310 - Herbaceous Openland	1.2	No	Unspecified	
143	31022 - Warm Season Grass	12.3	No	High (NonForested)	little bluestem. wild bergamont
147	31022 - Warm Season Grass	12.7	No	High (NonForested)	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
152	3105 - Mixed Upland Herbaceous	10.3	No	Medium (NonForested)	Entire north edge planted with 2 rows of autumn olive. Old plow furrows. Pieces of old foundation.
155	3104 - Degraded	5.2	No	High (NonForested)	
156	31022 - Warm Season Grass	5.8	No	High (NonForested)	little bluestem
157	31022 - Warm Season Grass	20.3	No	High (NonForested)	Part of this opening was a planted wildlife food plot several inventory cycles ago. Rejuvenate planted portion as needed.
159	31022 - Warm Season Grass	17.7	No	High (NonForested)	little bluestem . Part of this opening was a planted wildlife food plot several inventory cycles ago. Rejuvenate planted portion as needed.
164	310 - Herbaceous Openland	7.2	No	Unspecified	little bluestem
170	310 - Herbaceous Openland	1.5	No	Unspecified	
177	790 - Other Bare/Sparsely Vegetate	19.2	Yes	Red Pine	
178	310 - Herbaceous Openland	16.3	No	Unspecified	
179	790 - Other Bare/Sparsely Vegetate	20.1	Yes	Red Pine	
183	310 - Herbaceous Openland	1.6	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
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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.

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

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.