



# Compartment Review Presentation

## Traverse City Forest Management Unit

Compartment 61126

Entry Year 2017

Acreage: 1,887

County Kalkaska

Management Area: Grayling Ice Contact

**Revision Date:** 2015-04-27

**Stand Examiner:** Katie Armstrong

### Legal Description:

T26N R5W Section 18, T26N R6W Sections 13 and 14

### Identified Planning Goals:

This compartment is part of the Grayling Ice Contact Management Area (MA). Management goals for this MA include balancing the age classes of aspen on suitable sites and thinning the northern hardwoods. Management will strive to sustainably produce various forest products, enhance game and non-game wildlife habitat, protect areas of unique character, and provide for forest-based recreational uses. Management challenges may include increased recreational pressure, oil and gas development, introduced pests, and disease and the difficulty in regenerating oak. More specifically, a wide swath of this compartment contains numerous huge old white pine stumps. Many of these pine sites are now growing poor quality, poorly stocked aspen so it would be nice to bring those into more productive cover types. A Kotar habitat type of PArVHa should support planted red pine. Several of the hardwood stands have a relatively heavy beech component which is infested with beech bark disease. Early treatment has been recommended for these stands to salvage the beech volume.

### Soil and topography:

Much of the compartment is on Kalkaska sand with lesser amounts of Au Gres sand, Croswell sands, Rubican-Graycalm sands, and Island Lake-Blue Lake complex. The swamp on the west end is on Tawas-Lupton mucks while the bog in Section 18 sits on Dawson-Loxley peats. Topography is relatively flat with some rolling hills in the central part.

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

These three sections are comprised entirely of State land except for the SWSW of Section 13 which is privately owned, with one seasonal residence. The compartment is also surrounded by State land. The compartment is part of the long-term lease to Camp Grayling.

### Unique Natural Features:

The Watson swamp, a good-to-excellent example of a rich conifer swamp natural community, extends into the compartment on the west side. There is a known MNFI EO in a treatment in Section 18 which will need to be protected.

### Archeological, Historical, and Cultural Features:

There are no known sites in the SHPO database.

### Special Management Designations or Considerations:

The Watson Swamp EO is a designated Special Conservation Area.

### Watershed and Fisheries Considerations:

An unnamed tributary of the North Branch of the Manistee River barely enters the northwest corner of the compartment. Section 18 contains a wet treed bog and several seasonally wet areas but none of these appear to have inlets or outlets. Black Creek, a tributary of the mainstem Manistee River, flows just east of the compartment boundary.

### Wildlife Habitat Considerations:

Featured wildlife species for this management area include: American woodcock, beaver, Eastern massasauga rattlesnake, pileated woodpecker, red-headed woodpecker, ruffed grouse, wild turkey, and white-tailed deer. Some of the most significant wildlife management issues will be maintenance of young forest and large open grassland complexes, the retention of large, over-mature trees and snags and the maintenance and expansion of hard mast and mesic conifer components. [To be edited by WLD.]

### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and 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. A gravel pit is located three miles to the northeast, but there is potential on uplands. This area is located four miles northwest of the Garfield 8 Field. The field produces from the Devonian Richfield

and the Ordovician PdC. Sections 13 and 18 have been recently leased.

**Vehicle Access:**

There is good vehicle access throughout the compartment from Sunset Trail (a year-round county gravel road) and the forest road running east-west which is the snowmobile trail in the winter. Riverview Road (a seasonal county road) provides access to the southeastern part of Section 18.

**Survey Needs:**

There are no corners on the north line of the private 40-acre parcel in Section 13 so this will need to be surveyed for adjacent treatments.

**Recreational Facilities and Opportunities:**

A big portion of the Cranberry Lake Snowmobile Trail (Trail #76) runs east-west through the center of this compartment. This trail is also the Kalkaska ORV Route in the summer months. The Kalkaska ORV Trail, designed for ORVs <50 inches wide, runs north-south through the eastern half of this compartment. Trail protection specifications as outlined in DNR Policy and Procedures 32.22XX (Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails) should be utilized where trails are potentially impacted (T.M.N. 12/10/14).

**Fire Protection:**

Since most of the compartment is aspen and/or hardwood cover type, wildfire risk is minimal. Fire protection would be provided by the Kalkaska office and Bear Lake Township Fire Department.

**Additional Compartment Information:**

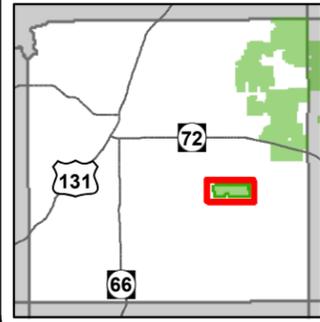
The following reports from the Inventory are attached:

- 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

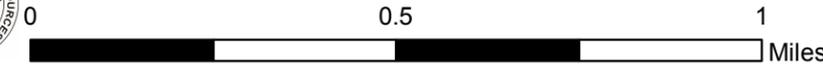
The following information is displayed, where pertinent, on the attached compartment maps:

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

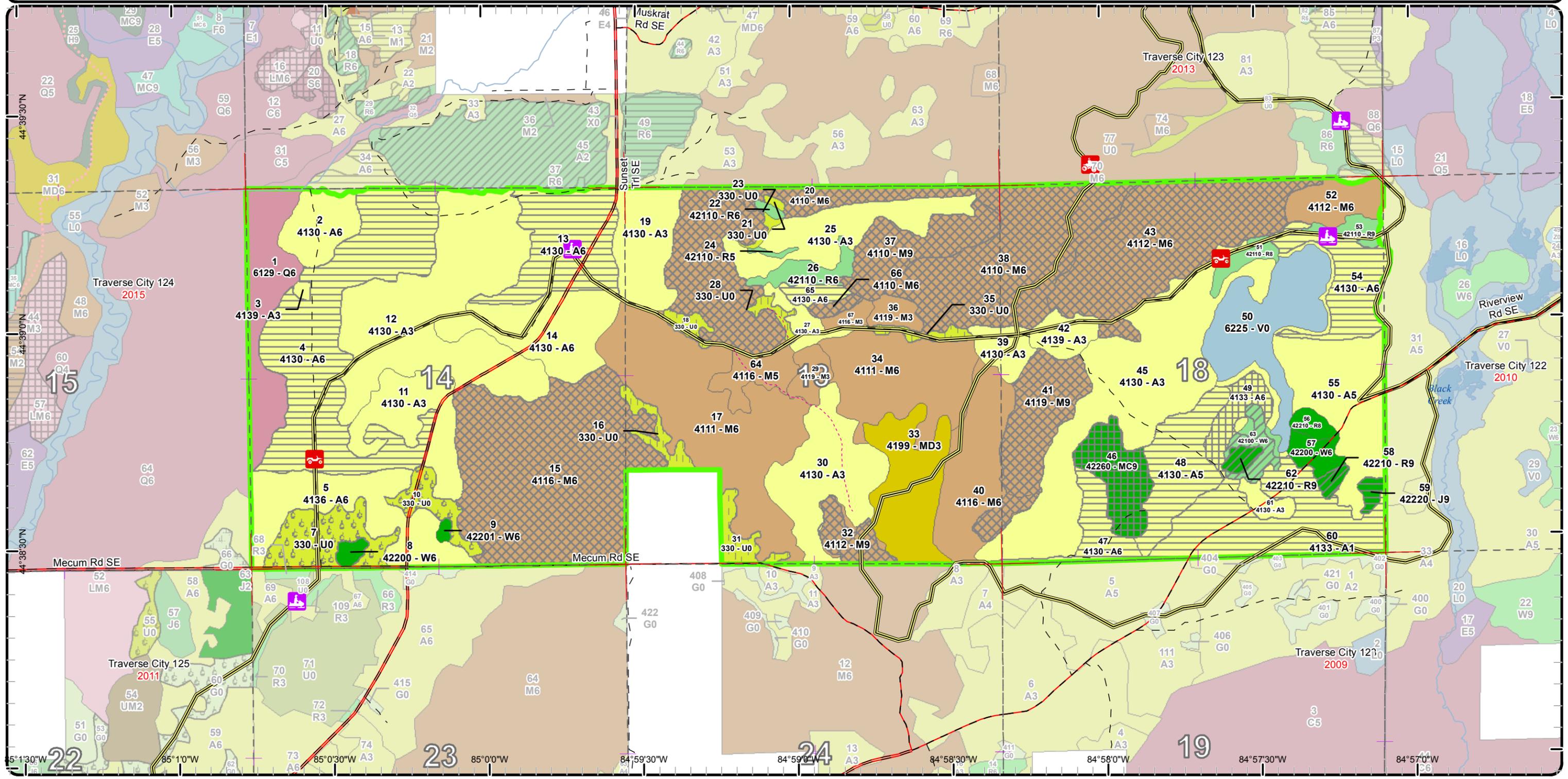
# Cover Type & Treatments



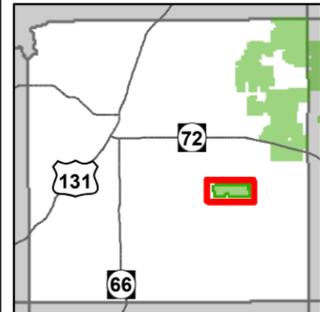
Compartment: 126  
 T26N R06W 13-14  
 T26N R05W 18  
 Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Ice Contact  
 YOE: 2017  
 Acres: 1887 GIS Calculated  
 Examiner: Katie Armstrong  
 Map Revised: 6/18/2015  
 Map Phase: Pre-Review



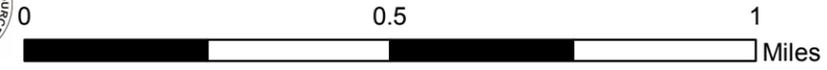
- + Remonumented Section Corners
 — Rivers
- Miris Corners
 ■ Lakes
- County Gravel Roads
 ▨ Treatments
- - Poor Dirt Roads
 X Selection (Group, Single Tree)
- County Poor Dirt Roads
   Clearcut (w/Reserves)
- - - Trail (Non-Recreation)
 ▨ Prescribed Burn
- - - Closed Roads
 ▨ Opening Maintenance
- ▲ Berms
 ▨ Thinning (Crown, Low, Systematic)
- 🚙 ORV Trails
 ▨ Seed Tree (w/Reserves)
- 🚙 ORV Routes
 ■ Forest Covertype
- 🚙 Snowmobile Trails
 ■ 413 - Aspen
- Rivers
 ■ 419 - Mixed Upland Deciduous
- Lakes
 ■ 421 - Planted Pines
- ▨ Treatments
 ■ 422 - Natural Pines
- X Selection (Group, Single Tree)
 ■ 612 - Lowland Coniferous Forest
- Clearcut (w/Reserves)
 ■ Non-Forest Covertype
- ▨ Prescribed Burn
 ■ 330 - Low Density Trees
- ▨ Opening Maintenance
 ■ 622 - Lowland Shrub
- ▨ Thinning (Crown, Low, Systematic)
 ■ 411 - Northern Hardwood
- ▨ Seed Tree (w/Reserves)



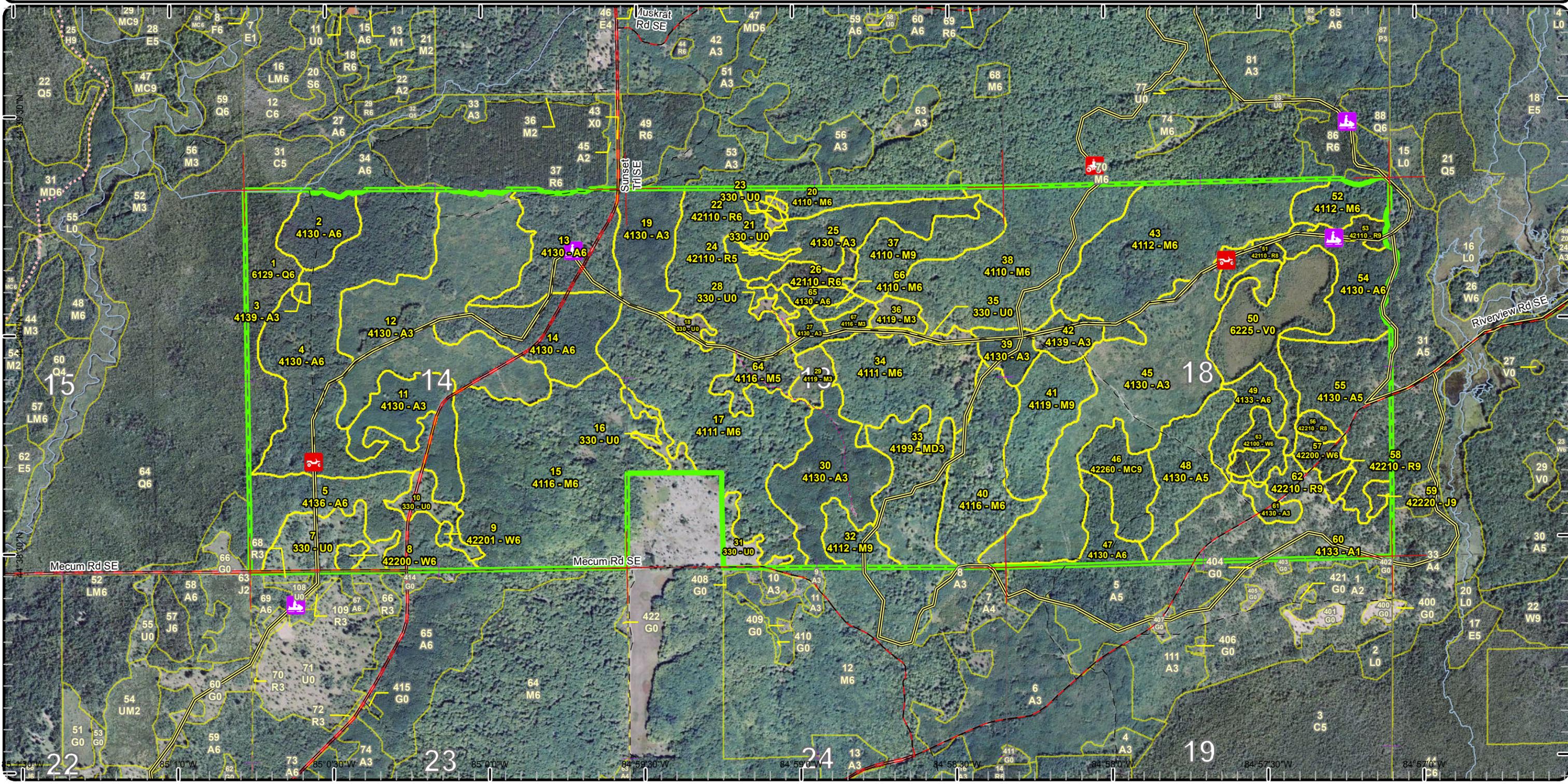
# Stand Boundary Map



Compartment: 126  
 T26N R06W 13-14  
 T26N R05W 18  
 Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Ice Contact  
 YOE: 2017  
 Acres: 1887 GIS Calculated  
 Examiner: Katie Armstrong  
 Map Revised: 6/16/2015  
 Map Phase: Pre-Review

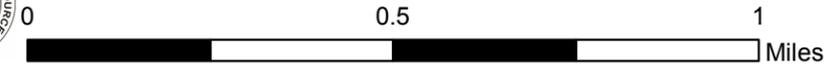
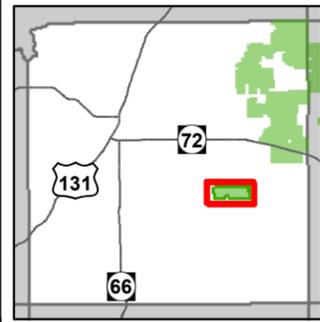


- Remonumented Section Corners
  - Miris Corners
  - County Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Trail (Non-Recreation)
  - Closed Roads
  - Berms
  - ORV Trails
  - ORV Routes
  - Snowmobile Trails
  - Rivers
  - Stand Boundaries
- Forest Covertype
- 411 - Northern Hardwood
  - 413 - Aspen
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 330 - Low Density Trees
  - 622 - Lowland Shrub



# Special Conservation Areas & Site Conditions Map

Compartment: 126  
 T26N R06W 13-14  
 T26N R05W 18  
 Kalkaska  
 Unit: Traverse City  
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— Miris Corners

□ Stand Boundaries

Site Condition

— Available w/ Constraints

— Unavailable

Available Factors W/ Constraints

5C: Delay treatment for age/size class diversity or exceptional site quality

Unavailable Factors

3B: Threatened, endangered, and special concern species/communities  
 3J: Water quality / BMPs (stream, river, or lake)

5E: Long-Term Retention Special Conservation Areas

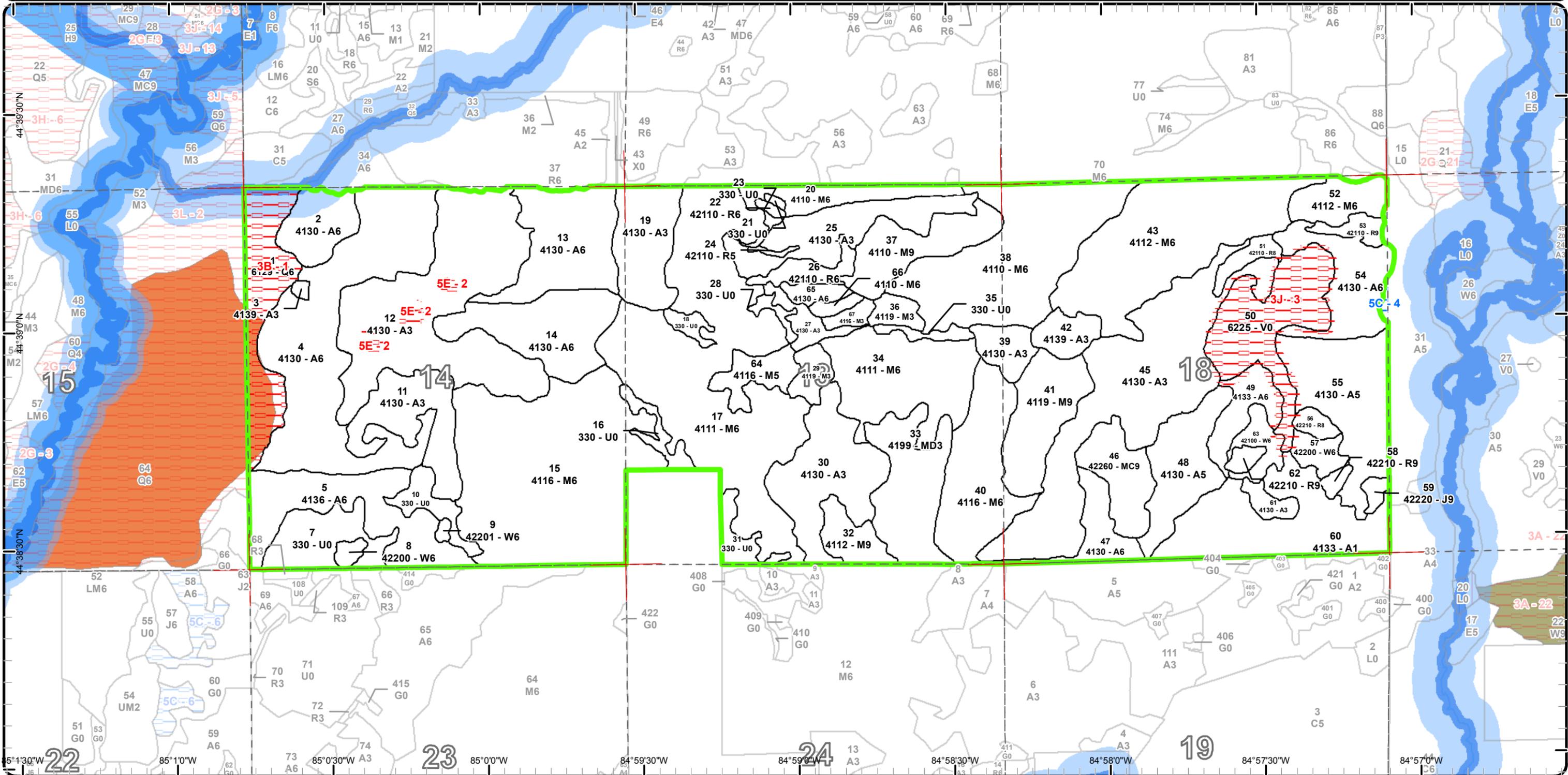
— Natural Rivers Vegetative Buffer

— Natural Rivers Zoning District

— Cold Water Streams

— High Priority Trout Stream Buffer

— Other Habitat Area



# Report 1 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit

Compartment 126 Year of Entry 2017

Katie Armstrong : Examiner



## Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	224	47	134	174	200	109	0	0	0	0	0	0	0	0	0	0	0	888
Bog	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Jack Pine	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Low-Density Trees	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Lowland Conifers	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	40
Mixed Upland Deciduous	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Natural Mixed Pines	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	23
Northern Hardwood	0	6	0	4	0	31	0	0	381	0	0	0	0	0	0	0	0	301	723
Red Pine	0	0	0	0	0	0	18	6	0	4	6	0	0	0	0	0	0	0	34
White Pine	0	0	0	0	0	3	0	1	17	0	0	0	0	0	0	0	0	0	21
<b>Total</b>	<b>113</b>	<b>271</b>	<b>47</b>	<b>138</b>	<b>174</b>	<b>234</b>	<b>150</b>	<b>10</b>	<b>398</b>	<b>4</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>301</b>	<b>1886</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
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4	61126004-Cut	108.6	4130 - Aspen	Poletimber Well	52	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees > 2" dbh except for scattered well-formed cherry and maple (mark to leave). Protect desirable advanced regeneration to the extent possible. Leave retention along western edge, if too wet to treat, or along snowmobile trail or Sunset Trail. There is a wet pocket with cedar in the northwest corner which should be excluded in a retention pocket.

Next Step  
Treatments:

Acceptable Regen: Aspen with lesser amounts of other species such as red maple, balsam fir, black cherry, or oak for diversity.

Other Comment: Snowmobile trail runs through the stand. Protect trail by leaving some trees along the trail and using appropriate sale specifications. Old next step comments:

Proposed Start Date: 10/1 /2016

7	61126007-Burn	25.2	330 - Low-Density Trees	Nonstocked	0	Unspec ified	Burn	Opening	31022 - Warm Season Grass		Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Burn to stimulate native warm season grasses (little bluestem) and maintain stand in semi-open condition.

Specs:

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Aspen clones may be removable as part of nearby treatment. Old next step comments:

Proposed Start Date: 10/1 /2016

10	61126010-Burn	10.5	330 - Low-Density Trees	Nonstocked	0	Unspec ified	Burn	Opening	31022 - Warm Season Grass		Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Burn to stimulate native warm season grasses (little bluestem) and maintain stand in semi-open condition.

Specs:

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

13	61126013-Cut	46.1	4130 - Aspen	Poletimber Well	45	Unspec ified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees > 2" dbh except scattered well-formed trees of a variety of species. Retention may be by area or individual tree BA.

Specs:

Next Step  
Treatments:

Acceptable Regen: Combination of aspen and lesser amounts of other species including red maple, sugar maple, cherry, white and red pine.

Regen:

Other Comment: Snowmobile trail runs through stand. Mark more trees to leave along trail and protect with sale specifications. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
15 61126015-Cut	141.3	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	55	111-140	Harvest	Single Tree Selection	4116 - Mixed N. Hardwood - Aspen	Uneven-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Treatment will be a combination of traditional STS in hardwood areas and more of a shelterwood in mixed hardwood-aspen areas. Remove all aspen except for scattered wildlife trees. Remove all beech except for potentially resistant trees and a few scattered good mast-producers. Remove all ash. After accounting for removal of that BA, thin hardwood areas to approximately 80 sf/acre, focusing on removing defect and suppressed trees to release crop trees and create canopy gaps for egeneration.

Next Step  
Treatments:

Acceptable Combination of aspen and northern hardwood species.  
Regen:

Other Survey request has been submitted. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

17 61126017-Cut	54.4	4111 - S.Maple, Hard Mast Association	Poletimber Well	76	81-110	Harvest	Single Tree Selection	4116 - Mixed N. Hardwood - Aspen	Uneven-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Treatment will be a combination of traditional STS in hardwood areas and more of a shelterwood in mixed hardwood-aspen areas. Remove all aspen except for scattered wildlife trees. Remove all beech except for potentially resistant trees and a few scattered good mast-producers. After accounting for removal of that BA, thin hardwood areas to 70-80 sf/acre, focusing on removing defect and suppressed trees to release crops trees and create canopy gaps for regeneration.

Next Step  
Treatments:

Acceptable Combination of aspen and northern hardwood species.  
Regen:

Other Only treating north half of stand at this time to salvage higher beech volume. Snowmobile trail runs on forest road along south edge of treatment.  
Comment: Protect trail through marking and sale specifications. Old next step comments:

Proposed Start Date: 10/1 /2016

20 61126020-Cut	16.8	4110 - Sugar Maple Association	Poletimber Well	75	81-110	Harvest	Single Tree Selection	4111 - S.Maple, Hard Mast Association	Uneven-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin stand to 70-80 sf/acre. Remove all aspen except for some future snags and CWD, all ironwood and beech except for potentially BBD-resistant trees and scattered good mast-producers and all ash (if any).

Next Step  
Treatments:

Acceptable Mix of northern hardwood species.  
Regen:

Other Manage with 61123070 at next thinning. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
32 61126032-Cut	11.5	4112 - Maple, Beech, Cherry Association	Sawtimber Well	82	141-170	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Uneven-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Stand has a high percentage of beech that may be salvageable since hardwood stand to the south is already set up and sold as a beech salvage sale. Mark to cut to residual BA of approximately 80 sf/acre, focusing on removing most of beech but leaving potentially resistant trees and some good mast-producers. Remove poor form and high risk trees from other species. Open up canopy gaps where opportunities present themselves.

Specs:  
Next Step  
Treatments:

Acceptable Mix of northern hardwood species.  
Regen:

Other Combine with 61-072-13-01. Protect ORV trail through marking and sale specs. Old next step comments:  
Comment:

Proposed Start Date: 4 /7 /2015

37 61126037-Cut	29.7	4110 - Sugar Maple Association	Sawtimber Well	75	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin stand to 70-80 sf/acre. Remove all aspen except for some future snags and CWD trees, ironwood, ash, and beech except for potentially BBD-resistant trees and scattered good mast-producers. Within pockets of sugar maple poles, focus on removing defect and suppressed trees to develop crop trees and create some canopy gaps for regeneration.

Specs:  
Next Step  
Treatments:

Acceptable Northern hardwood species including sugar maple, red maple, basswood, beech, birch, aspen and black cherry.  
Regen:

Other Treat stand early to salvage beech volume. Old next step comments:  
Comment:

Proposed Start Date: 8 /26/2015

38 61126038-Cut	87.0	4110 - Sugar Maple Association	Poletimber Well	75	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin stand to 70-80 sf/acre. Remove all aspen except for some future snags and CWD trees, ironwood, ash, and beech except for potentially BBD-resistant trees and scattered good mast-producers. Within pockets of sugar maple poles, focus on removing defect and suppressed trees to develop crop trees and create a few canopy gaps for regeneration.

Specs:  
Next Step  
Treatments:

Acceptable Northern hardwood species including sugar maple, red maple, basswood, beech, birch, aspen and black cherry.  
Regen:

Other ORV trail runs through stand. Protect trail through marking and sale specifications. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

41 61126041-Cut	40.4	4119 - Mixed Northern Hardwoods	Sawtimber Well	72	111-140	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Uneven-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Thin stand to 70-80 sf/acre. Remove most of beech except for potentially resistant trees and a few good mast producers. Remove all aspen except for scattered future snags and CWD trees. After accounting for removal of that BA, focus on removing defect and suppressed trees to develop crop trees and create some canopy gaps for regeneration.

Specs:  
Next Step  
Treatments:

Acceptable Northern hardwood species including sugar maple, red maple, basswood, beech, birch, aspen and black cherry.  
Regen:

Other Treatment extends into Stand 40 to remove beech on lower part of slope. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
43 61126043-Cut	90.5	4112 - Maple, Beech, Cherry Association	Poletimber Well	79	141-170	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Thin stand to approximately 80 sf/acre. Remove all beech except for potentially resistant trees and scattered good mast-producing beech.  
Specs: Remove all aspen except for scattered wildlife trees. After accounting for removal of that BA, focus on removing defect and suppressed trees to release crop trees and create some canopy gaps for regeneration. Residual BA will be variable, perhaps 50-120 sf/acre. Pole-sized areas can be left slightly thicker. Remove more in areas with wolfy trees to encourage hardwood or aspen regeneration in gaps. East end of the stand will be more open since there are some areas with 80% beech. May want to consider a mark-to-leave unit at this end. Leave scattered pines for diversity.

Next Step Treatments:

Acceptable Regen: Combination of northern hardwood species, including sugar maple, red maple, basswood, beech, and black cherry, and aspen

Other Comment: Stand contains at least one MNFI EO which should be protected during treatment. Snowmobile trail runs through or adjacent to the southern part of the stand. Protect the trail through marking and sale specifications. Old next step comments:

Proposed Start Date: 8 /26/2015

46 61126046-Cut	23.4	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	52	111-140	Harvest	Seed Tree	4136 - Aspen, Mixed Conifer	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Seedtree harvest leaving approximately 10 sf/acre of red pine, white pine and well-formed red maple (if any). Leave heavier canopy around seasonal wet spot at north end of stand.

Next Step Treatments:

Acceptable Regen: Combination of aspen, white pine, red pine, red maple and black cherry. Expect stand composition to shift more towards aspen than white pine.

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

47 61126047-Cut	16.1	4130 - Aspen	Poletimber Well	47	81-110	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees >2" dbh except for some scattered well-formed white pine (mark to leave). Also leave some older aspen as retention. Protect pockets of advanced regeneration, if desirable.

Next Step Treatments:

Acceptable Regen: Combination of mostly aspen with scattered red maple, white pine, balsam fir and black cherry.

Other Comment: Treatment added per RSFMP guidelines. Old next step comments:

Proposed Start Date: 10/1 /2016

48 61126048-Cut	33.1	4130 - Aspen	Poletimber Medium	47	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Stand is poorly stocked offsite aspen. Kotar type is PARVHa which supports red pine. Clearcut and plant red pine along with Stands 59 and 60.  
Specs: Leave a retention pocket along the north edge/younger aspen stand and/or SW corner. Include chipping specification on sale.

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

Acceptable Regen: Planted red pine at acceptable stocking levels. By foregoing intensive chemical site preparation, some natural deciduous or white pine regeneration should be expected and is acceptable for diversity.

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
49 61126049-Cut	12.1	4133 - Aspen, Mixed Pine	Poletimber Well	44	81-110	Harvest	Seed Tree	4133 - Aspen, Mixed Pine	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all aspen and all white pine > 8" dbh except mark some larger well-formed white pine to leave. Residual BA will be variable, ~10-30 sf/acre.  
Specs: Protect desirable advanced regeneration (especially oak) with sale specifications and administration. Retention has already been removed from the treatment area -- buffers along the bog and a seasonal wet area in the south-central part of the stand. Buffer distances should be confirmed when running sale boundary.

Next Step  
Treatments:

Acceptable Combination of aspen, white pine, red pine, oak, red maple, and black cherry.  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

54 61126054-Cut	28.2	4130 - Aspen	Poletimber Well	49	81-110	Harvest	Clearcut	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees >2" dbh except for some scattered well-formed white pine (mark to leave). Retention (buffer around the bog) has already been removed from treatment but additional retention may be needed depending on how wet the ground is.

Next Step  
Treatments:

Acceptable Combination of mostly aspen with scattered red maple, white pine, balsam fir and black cherry.  
Regen:

Other Plan to include sliver of Compartment 122 west of road. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

58 61126058-Cut	2.6	42210 - Natural Red Pine	Sawtimber Well	95	111-140	Harvest	Crown Thinning	42210 - Natural Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Lightly thin dense pockets where red pine might benefit from thinning. Target residual BA of approximately 120 sf/acre.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016

59 61126059-Cut	3.0	42220 - Natural Jack Pine	Sawtimber Well	63	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Clearcut and plant red pine along with Stand 60. Include chipping specification on sale.  
Specs:

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

Acceptable Planted red pine at acceptable stocking levels.  
Regen:

Other Stand is too small for retention and overstory trees are undesirable for site prep and planting. Old next step comments:  
Comment:

Proposed Start Date: 10/1 /2016



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
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60	61126060-Cut	60.9	4133 - Aspen, Mixed Pine	Sapling Poor	34	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Stand is poorly stocked, offsite aspen. Kotar type of PARVHa should support red pine. Clearcut and plant red pine along with Stands 48 and 59.  
Specs: Leave retention along a wet drain south of Stand 61 or as leave trees along northeast edge where pine is thicker. Include chipping specification on sale.

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

Acceptable Regen: Planted red pine at acceptable stocking levels. By foregoing intensive chemical site preparation, some natural deciduous regeneration should be expected and is acceptable for diversity.

Other Comment: Consider rerouting motorcycle trail to the south in Compartment 128. Old next step comments:

Proposed Start Date: 10/1 /2016

62	61126062-Cut	3.3	42210 - Natural Red Pine	Sawtimber Well	95	111-140	Harvest	Crown Thinning	42210 - Natural Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Lightly thin dense pockets where red pine might benefit from thinning. Target residual BA of approximately 120 sf/acre.  
Specs:

Next Step Treatments:

Acceptable Regen:

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

63	61126063-Cut	7.7	42100 - Planted White Pine	Poletimber Well	75	111-140	Harvest	Crown Thinning	4311 - Pine, Aspen Mix	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all aspen except for scattered trees with wildlife value and thin pine from above to remove poorly formed trees and release younger, better formed trees. Residual BA will be variable, ~60-100 sf/acre. Area retention has already been removed from the treatment -- buffers along the bog and a seasonal wet area in the north-central part of the stand. Buffer distances should be confirmed when running sale boundary. A drain runs through the southern lobe of stand. This should be protected with heavier residual canopy and equipment should not cross it.

Next Step Treatments:

Acceptable Regen: Combination of white pine, red pine, and aspen.

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

65	61126065-Cut	5.2	4130 - Aspen	Poletimber Well	47	81-110	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees > 2" dbh leaving scattered well-formed cherry and/or sugar maple and aspen, except for some future snags and CWD trees.  
Specs: Retention either by area or individual marked trees.

Next Step Treatments:

Acceptable Regen: Mostly aspen with some other deciduous species such as sugar maple and cherry.

Other Comment: Treat stand early in conjunction with beech salvage in Stand 37. Old next step comments:

Proposed Start Date: 8 /26/2015



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
66 61126066-Cut	3.0	4110 - Sugar Maple Association	Poletimber Well	76	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Thin stand to 70-80 sf/acre. Remove all aspen except for some future snags and CWD trees, ironwood, beech except for potentially BBD-resistant trees and some good mast-producers, and ash (if any).  
Specs:

Next Step  
Treatments:

Acceptable Regen: Combination of northern hardwood species, such as sugar maple, red maple, basswood, beech, birch, and black cherry, and aspen.

Other Comment: Treat stand early in conjunction with beech salvage in Stand 37. Old next step comments:

Proposed Start Date: 8 /26/2015

**Total Treatment Acreage Proposed: 860.4**

## Report 5 – Site Conditions

Traverse City Mgt. Unit  
Katie Armstrong : Examiner

Compartment: 126  
Year of Entry: 2017

### Dominant Site Conditions

	3J	5C	5E
Aspen	12	0	6
Bog	48		
Jack Pine			
Low-Density Trees			
Lowland Conifers			
Mixed Upland Deciduous			
Natural Mixed Pines			
Northern Hardwood			
Red Pine	1		
White Pine	1		
Total Forested Acres	62	0	6
Relative Percent			

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	<b>3B: Threatened, endangered, and special concern species/communities</b>	40	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	<b>5E: Long-Term Retention</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention from Sunset Aspen sale, 61-024-07-01.							
3	Unavailable	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	62	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> buffer for bog							

## Report 5 – Site Conditions

Traverse City Mgt. Unit  
Katie Armstrong : Examiner

Compartment: 126  
Year of Entry: 2017

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Treat with 61122031							

Mgt. Unit

Compartment: #Type!

Year of Entry:



## Report 6 – 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
<b>Comments</b>				



**Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	40.2	90	Unspecified	Very thick understory in most places. Patches of nearly pure tag alder. Some very large, old, burned pine stumps.
2	4130 - Aspen	Poletimber Well	20.1	37	Unspecified	Wettest along western edge. More conifers in understory there. Some decent quality cherry. Some red maple in understory is almost 4" dbh. Heavy browse on smaller maple and cherry in understory.
3	4139 - Aspen, Mixed Deciduous	Sapling Well	1.3	18	Immature	
4	4130 - Aspen	Poletimber Well	108.9	52	Unspecified	Mostly quaking aspen with some bigtooth clones. Some good quality cherry. Dense understory, including some black cherry poles. Patches of M3 understory, starting to reach pole size. Patch of cedar at NW corner, possible wet spot. Slopes to west and wetter along that edge but should be operable. More balsam in understory along southwestern edge.
5	4136 - Aspen, Mixed Conifer	Poletimber Well	49.9	39	Unspecified	Wetter along western edge. More balsam fir in understory there. Heavy browse on red maple saplings. Variable stocking. Pine is mostly in a few discrete clumps.
8	42200 - Natural White Pine	Poletimber Well	3.0	46	81-110	Small pocket of white pine surrounded by a lot of aspen; adds diversity. Pine DBHs range from 6-13".
9	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	1.3	60	81-110	Small patch of white pine at the edge of an opening. Most is open-grown and rather limby. Some very large old pine stumps.
11	4130 - Aspen	Sapling Well	34.5	18	Immature	West part cut summer 1997 as part of Sunset Aspen, 61-016-97-01. East part cut summer 1997 as part of Sunset East, 61-060-97-01. Good regeneration.
12	4130 - Aspen	Sapling Well	111.3	7	Immature	Sunset Aspen sale, 61-024-07-01, cut summer 2008 by Muma. Clearcut > 2" except balsam fir and paper birch. Good regeneration. Scattered balsam fir and white pine. Left a few retention pockets within the sale. WLD established extra CWD.
13	4130 - Aspen	Poletimber Well	46.1	45	Unspecified	Variable stand. Quite a bit of aspen falling down and patches of younger stuff. Thick hardwood understory. A few scattered white pine.
14	4130 - Aspen	Poletimber Well	42.6	39	Unspecified	Possibly cut October 1976. Relatively dense understory. White pine is clumpy and mostly east of Sunset Trail and in southern part of stand.
15	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	141.3	55	111-140	Variable stand. Mostly hardwood with some good quality aspen pockets. [BAs: 120, 100, 130, 160, 110] Rolling hills and some scattered small openings with some conifers.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	4111 - S.Maple, Hard Mast Association	Poletimber Well	153.9	76	81-110	Rolling terrain. BBD is heavy in spots, mostly north of the trail. Some clones of aspen scattered throughout. South of snow trail seems to have more variable stocking. There is some white ash scattered throughout the stand. Aspen is pretty well maxed out.  Plots BA (1-100, 2-130, 3-90, 4-110, 5-130, 6-100, 7-100. Avg 109) spp % is based on BA data.
19	4130 - Aspen	Sapling Well	30.8	27	Immature	Cut summer 1988 as part of Woodcock Beak sale, 61-045-86-01. Trees are about 30' tall. Stand is in the process of converting to a pole stand.
20	4110 - Sugar Maple Association	Poletimber Well	16.8	75	81-110	Some scattered beech. Aspen is barely holding on. There are a few scattered ash. Medium quality. Avg BA is 110 sqft/ac. (note: spp. % are based on BA%) Could possibly merge with stand 17. It would ideally be managed with stand 70 in 123.
22	42110 - Planted Red Pine	Poletimber Well	1.3	50	81-110	Second thinning in summer 2010 as part of Pine Pockets sale, 61-016-07-01 cut by Frank Blake.
24	42110 - Planted Red Pine	Poletimber Medium	1.1	50	51-80	Second thinning in summer 2010 as part of Pine Pockets sale, 61-016-07-01 cut by Frank Blake. Fairly limby stems with some porky damage. Filling in with hardwoods in the understory.
25	4130 - Aspen	Sapling Well	36.5	26	Immature	Cut 1989 as part of Big Buck Block, 61-051-86-01. Aspen is ~ 20-30' tall. Lots of TPA. Some parts of stand are more of an M3, especially along stand 17.
26	42110 - Planted Red Pine	Poletimber Well	9.5	50	81-110	Second thinning in summer 2010 as part of Pine Pockets sale, 61-016-07-01 cut by Frank Blake. Eastern half of stand has better stocking with less understory. Most of stand has a lot of hardwood and aspen sprouting in the understory. Quite a few trees with forked tops.
27	4130 - Aspen	Sapling Well	8.2	26	Immature	Cut 1989 as part of Big Buck Block, 61-051-86-01. Some areas are starting to convert to a pole stand. Some areas have more of a hardwood component.
29	4119 - Mixed Northern Hardwoods	Sapling Well	8.2	5	Immature	Part of Don's Release, 61-017-07-01, cut fall 2010 by Jaroche Brothers. Stand was heavily cut in 1997 YOE, then acorns were hand planted. After the seedlings/saplings had established, the overstory was removed to release the oak and mixed hardwood. A few small overstory trees. Not much evidence of the planted oak.
30	4130 - Aspen	Sapling Well	47.7	28	Immature	Cut summer 1987 as part of Snow Sale, 61-017-87-01. Well stocked; on the verge of being a pole stand. Surprising amount of sugar maple in the northernmost lobe.



Stand	Traverse City Mgt. Unit			Report 8 – Forested Stands		Compartment: 126 Year of Entry: 2017
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4112 - Maple, Beech, Cherry Association	Sawtimber Well	13.1	82	141-170	Would have been nice to include with stand to the south. Heavy to beech. Will have regeneration issues with lots of beech and ironwood. There are some nice sugar maple poles though. [BA1: 20 sf SM, 140 sf Be; BA2: 20 sf SM, 70 sf Be, 20 sf QA] More aspen and younger trees in northeast corner but we might as well include it in this treatment since everything around it has been treated recently.
33	4199 - Other Mixed Upland Deciduous	Sapling Well	40.9	6	Immature	Part of Retirement Habitat sale, 61-019-07-01, cut December 2009. Clearcut > 2" except beech, black cherry and ironwood. There is a lot of beech in this stand. The aspen may overtake the beech saplings but this is still a regeneration concern. Residual is patchy. Rolling hills.
34	4111 - S.Maple, Hard Mast Association	Poletimber Well	55.0	58	81-110	Aspen is in rough shape but there is not that much of it. [BAs: 130, 150, 60, 130, 80, 110] Lean towards holding this stand. Rolling hills.
36	4119 - Mixed Northern Hardwoods	Sapling Well	6.4	5	Immature	Part of Don's Release, 61-017-07-01, cut fall 2010 by Jaroche Brothers. Stand was heavily thinned in 1997 YOE, then acorns were hand planted. After the seedlings/saplings had established, the overstory was removed to release the oak and mixed hardwood. Trees are about 10-20' tall, noticed a few scattered oaks.
37	4110 - Sugar Maple Association	Sawtimber Well	29.7	75	111-140	Aspen is starting to fall out of the stand. Pockets of infected ash, mostly in the western 1/2 of the stand. Decent hard maple pole timber.  Avg BA is 130 sqft/ac (Note: spp. % are base on BA data)
38	4110 - Sugar Maple Association	Poletimber Well	87.0	75	111-140	Decent hard maple pole timber. Stand looks to have a lot of potential. Some scattered Ash with EAB. Rolling terrain. Noticed a dead pocket in the northeastern part of the stand near the ORV trail. Mostly hard maple on a south facing slope?? Average BA is 130sqft/ac
39	4130 - Aspen	Sapling Well	11.2	28	Immature	Cut summer 1987 as part Snow Cone sale, 61-025-87-01. Well-stocked. Still a lot of sapling-sized stems.
40	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	49.0	58	81-110	Variable stand. Parts are relatively open with scrubby oak. Rolling hills with some relatively steep slopes. Beech is heavy in parts. BBD present.
41	4119 - Mixed Northern Hardwoods	Sawtimber Well	34.3	72	111-140	Good quality hardwood stand with nice diversity. Some parts are still mostly poles. [QD exists on paper. BAs: 130, 140, 70, 120, & 180] Aspen is in poor shape and beech has BBD. Ridge runs the length of the stand. More soft maple on slope with ESE aspect.
42	4139 - Aspen, Mixed Deciduous	Sapling Well	10.8	18	Immature	Cut summer 1997 as part of Sunset Aspen, 61-016-97-01. More mixed composition than stand 39. Patchy regeneration but more than acceptable.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4112 - Maple, Beech, Cherry Association	Poletimber Well	90.5	79	141-170	East end has heavier concentration of beech some of which is white washed. stand needs cut now :-/ potential stick nest for wildlife to check out @ SW end. Some very nice pole areas and some larger open grown stuff.
45	4130 - Aspen	Sapling Well	107.3	5	Immature	Part of Retirement Habitat sale, 61-019-07-01, cut October - December 2009. Good regeneration. Scattered overstory trees -- beech, cherry, ironwood and oak. WLD established extra CWD.
46	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	23.4	52	111-140	Mediocre quality white pine. Would not be improved by thinning. Red maple understory is thick in places. Aspen is starting to die. Stand is full of huge, old, burned stumps. Lots of porcupine damage. Seasonal wet spot at north end.
47	4130 - Aspen	Poletimber Well	16.1	47	81-110	Lower stocking. Some aspen starting to die and some aspen restarting in gaps. Generally thick red maple in understory. Lots of large, burned stumps.
48	4130 - Aspen	Poletimber Medium	33.1	47	51-80	Some very low quality and/or poorly stocked parts with red maple, black cherry saplings coming up under the aspen.
49	4133 - Aspen, Mixed Pine	Poletimber Well	16.1	44	81-110	pine ground growing 1-3 stick aspen :-/ "Big Ol Stumps" all over. Small VO to buffer out along edge of stand 49 and 63. also buffer VO to north. buffers will function as retention and should cover the 3-10% but will likely be closer to the 3% mark.
51	42110 - Planted Red Pine	Sawtimber Medium	6.4	65	51-80	stand thinned pretty heavy in 2010. filling in with mixed deciduous understory. east end has more white pine. should hold good 10 years. stand will likely push to deciduous.  Second thinning in summer 2010 as part of Pine Pockets sale, 61-016-07-01 cut by Frank Blake.
52	4112 - Maple, Beech, Cherry Association	Poletimber Well	16.6	43	1-50	Young hardwood stand. Clumpy red maple. Some scattered oak. A few clones of aspen. Parts of stand are still converting from saplings to pole timber.
53	42110 - Planted Red Pine	Sawtimber Well	6.0	50	141-170	Second thinning in summer 2010 as part of Pine Pockets sale, 61-016-07-01 cut by Frank Blake. nice quality pine.
54	4130 - Aspen	Poletimber Well	31.9	49	81-110	Mostly 5 stick aspen and is ok quality although some is starting to die out. There are some scattered oak and red pine in the southern 1/2 of the stand. Balsam and spruce along the edge of stand 50 to the west. South east corner is not very well stocked. Looks like a U0 filling in.
55	4130 - Aspen	Poletimber Medium	51.9	45	51-80	some larger older red and white pine scattered throughout especially at south end and NW corner. rest is mainly poor to moderately stocked quaking aspen mixed with pine and cherry. some 45ish yr old aspen and some open areas filling in with younger 15 yr old stuff. off site aspen but not as bad as some of the other stuff in this neck of the woods. could probably hold ok 10 yrs but wouldn't hurt to cut it now either.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	42210 - Natural Red Pine	Sawtimber Medium	4.4	85	51-80	R7-R9 over A2/A3. Thinned as part of Century Red sale, 61-020-07-01, cut December 2009 by Frank Blake. Filled in with aspen. Will hold fine for 10 years.
57	42200 - Natural White Pine	Poletimber Well	7.6	75	111-140	Larger white pine is pretty poorly formed. Filling in with white pine and aspen. Some A2/A4/A4 and some W3/W5/W6/W8 areas. Mixed bag stand. Big, old grade through stand.
58	42210 - Natural Red Pine	Sawtimber Well	2.6	95	111-140	Part of Century Red sale, 61-020-07-01, cut December 2009 by Frank Blake.
59	42220 - Natural Jack Pine	Sawtimber Well	3.0	63	81-110	Jack pine is falling over. Some very large, old pine stumps.
60	4133 - Aspen, Mixed Pine	Sapling Poor	61.1	34	1-50	Poorly stocked; poor shape aspen stand. Some of the stand has reindeer moss ground cover; must have burned pretty hot back in the day. Off-site aspen filling in with pine in some areas. Half grassy open areas and half filling in with poor quality trees.
61	4130 - Aspen	Sapling Well	5.6	7	1-50	Regenerated nicely. Pretty thick stem density. We'll see how well it does in the long run... Part of Retirement Habitat sale, 61-019-07-01, cut December 2009. Clearcut > 2" except beech, black cherry and ironwood.
62	42210 - Natural Red Pine	Sawtimber Well	3.3	95	111-140	Stand thinned last YOE, not hit very hard. some areas a bit more open and some pretty thick yet. stand will easily hold 10 years or could be lightly thinned again but this will likely push the stand to even more non pine understory. possibly look to thin again and lightly burn to set back deciduous regen and push to pine.  Part of Century Red sale, 61-020-07-01, cut December 2009 by Frank Blake.
63	42100 - Planted White Pine	Poletimber Well	9.4	75	111-140	SE finger has VO/Leatherleaf drain with pine overstory.
64	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	13.5	40	51-80	Stocking is variable. Lots of open grown timber. Aspen is of poor quality.
65	4130 - Aspen	Poletimber Well	5.2	47	81-110	Aspen is starting to decline. Stand has a heavy hardwood understory.
66	4110 - Sugar Maple Association	Poletimber Well	3.0	76	81-110	Some nice pockets of hard maple pole timber. West end has poorer quality timber. Some scattered birch and beech.  BA data (plot 1: 80, plot 2: 90) spp% based on BA data.
67	4116 - Mixed N. Hardwood - Aspen	Sapling Well	4.0	26	Immature	Cut 1989 as part of Big Buck Block, 61-051-86-01. Some A3 pockets but mostly well stocked with maple. Trees are 20-25' tall.



Stand	Cover Type	Acres	Managed Site	General Comments:
7	330 - Low-Density Trees	25.2	No	Opening that is filling in with scattered white pine, cherry, oak, maple and several clumps of quaking aspen, some of which might be merchantable.
10	330 - Low-Density Trees	10.5	No	Opening that is filling in with aspen, white pine, black cherry. Some pole-sized but limby white pine in southern part.
16	330 - Low-Density Trees	7.0	No	Mostly scattered hardwood trees.
18	330 - Low-Density Trees	4.2	No	
21	330 - Low-Density Trees	0.8	No	
23	330 - Low-Density Trees	1.8	No	
28	330 - Low-Density Trees	3.0	No	
31	330 - Low-Density Trees	8.4	No	Contains scattered trees, including a few wolfy hardwoods and a pocket of aspen in the north end.
35	330 - Low-Density Trees	4.2	No	
50	6225 - Bog	47.8	No	VO leatherleaf bog. fringed with a bit of spruce and pine. south finger has spruce along LO/VO drain area.