



# Compartment Review Presentation

## Traverse City Forest Management Unit

Compartment 61128

Entry Year 2019

Acreage: 3,186

County Kalkaska

Management Area: Grayling Outwash

---

**Revision Date:** 2017-06-12

**Stand Examiner:** Paul Roell

### Legal Description:

T26N R05W, Sections 19 and 30

T26N R06W, Sections 23, 24, 25, 26 and 35

### Identified Planning Goals:

Management in the Grayling Outwash management area (MA) will emphasize continuing balancing the age class of aspen on suitable sites and thinning the northern hardwoods, balancing age classes of red pine and jack pine and regenerating the aging swamp hardwood and conifer resource where possible. Management will strive to sustainably produce various timber products, enhance game and non-game wildlife habitat, protect areas of unique character and provide for forest-based recreational. Management activities are constrained by poor access in the swampy portions of this area, some of which fall in the riparian zone of the Manistee River, a dedicated natural river. Expected trends within this 10-year planning period are increased recreational pressure, introduced pests and diseases and the difficulty in regenerating swamp types.

### Soil and topography:

Emmet sand, Rubicon and Newton loamy sand, Rifle peat and Lupton muck. Topography ranges from upland, well drained flat to rolling uplands and steep sand bluffs to poorly drained swamps.

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

Ownership patterns around the compartment are mixed ownership private land and State land. The North part of the CCC Bridge State Forest Campground falls within this compartment. The land uses in and around the compartment are camping, fishing, snowmobiling, ORV and hunting.

### Unique Natural Features:

There is the potential for red-shouldered hawk and goshawk, wood turtle, eastern massasauga, osprey, eagle, and great blue heron rookery occurrences within this compartment.

### Archeological, Historical, and Cultural Features:

There are archeological concerns within the compartment nothing of significance for the timber sales.

### Special Management Designations or Considerations:

The Manistee River and its tributaries are under the Natural Rivers Act. All prescriptions within 400 feet of the river and tributaries further the conservation goals of these HCVA's. Section 23 is under a 10 year lease to The Department of Military and Veterans Affairs.

### Watershed and Fisheries Considerations:

The Manistee River and several unnamed tributaries flow through Compartment 128. All are Designated trout streams. The Manistee River is a nationally-known trout stream with naturally reproducing populations of brook, brown, and rainbow trout. In any operations near these streams, all BMPs and Natural Rivers rules should be followed. Per Natural Rivers rules, the Compt. 128 11/26/2007 Page 2 of 3 buffer for the Manistee River should be at least 175' (could be more depending on slopes) and for the tributaries 100' (again could be more depending on slopes).

### Wildlife Habitat Considerations:

Compartment 128 is located in south central Kalkaska County and is bordered on the south by the Manistee River. Habitat types found within this compartment of State Forest are influenced by three types of glacial formations found here. A large area of outwash plain (LTA 5149) consisting of poorly drained organic soils can be found north of, and along the Manistee River. These wet soils support lowland conifers (Black Creek Deer Yard) and lowland brush communities. The adjacent terrain is of a different type of outwash plain (LTA 5111), consisting of excessively drained

sands, which support several red pine plantations, aspen, and upland brush communities. Fire was a major disturbance on these dry soils and should be considered a valuable treatment tool in perpetuating these fire driven ecosystems. The hilly region of this compartment is underlain by steep, broken ice contact ridges (LTA 3121). The sandy soils found on these ridges have moderately low fertility and low available moisture. Even though much of this area was probably once covered with various northern hardwood communities, the dry soils did allow occasional wildfires on this landscape.

Proposed treatments within the lowland complex include some prescribed burning to promote and expand a wet prairie community. Several lowland aspen stands have also been prescribed for harvest. Several annual herbaceous plantings adjacent to this lowland complex will be continued. These plantings provide fall and early spring forage for yarding deer and other wildlife. Many species make use of lowland communities, including: Blackburnian warbler, northern saw-whet owl, snowshoe hare, red squirrel, bobcat, and wood frog.

Aspen harvests should be designed to mimic wildfires of various intensities, when possible. This creates a mosaic of age classes and increases structural diversity within an area. The creation of dead and downed logs should be incorporated into timber prescriptions to provide habitat for various wildlife species. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. Important habitat considerations for northern hardwood treatments include, providing for coarse woody debris, promoting diversity of tree species, preserving snags and den trees, and protecting unique features like vernal ponds.

One upland brush stand has been prescribed for burning to set back woody encroachment and stimulate native herbaceous vegetation. A variety of species make use of habitats found on these dry sandy soils, including: Kirtland's warbler, deer, ruffed grouse, smooth green snake, wild turkey, eastern box turtle, and badger. Several small forest openings have been scheduled for hand felling to set back woody encroachment.

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

There is no known metallic mineral potential in this region. Sand/gravel pits are not located in the area, but there is potential within the compartment, particularly on the uplands in sections 23 and 24. The compartment is located south of the Niagaran reef and Antrim plays and north of most of the Devonian fields of the central Michigan Basin. There has been some minor production from the Collingwood Formation to the north, but the unit has not proven to be an economical resource play and there is not currently any interest in further developing the play. Marathon still holds a number of active leases in the area, but they have indicated that they will be divesting their interests and leaving the state.

### **Vehicle Access:**

There is abundant access throughout the compartment.

### **Survey Needs:**

None at this time.

### **Recreational Facilities and Opportunities:**

The CCC Bridge State Forest Campground is located within this compartment. Roughly 1.5 miles of the Cranberry Lake snowmobile trail (#76), and 1.5 miles of the Kalkaska 50 inch ORV trail are also within this compartment. Policy and Procedure 32.22-01 (Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails) should be considered if forest treatments impact these recreational facilities. (T.M.N. 11/1/16)

### **Fire Protection:**

This compartment consists of mainly red pine and is located in our Zone 5 fire dispatch for the DNR Wildland Fire response.

### **Additional Compartment Information:**

**The following reports from the Inventory are attached:**

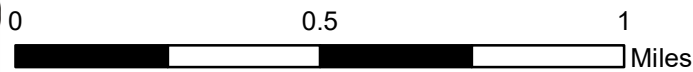
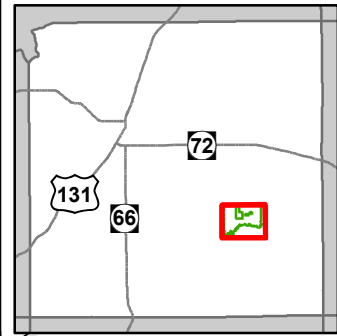
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

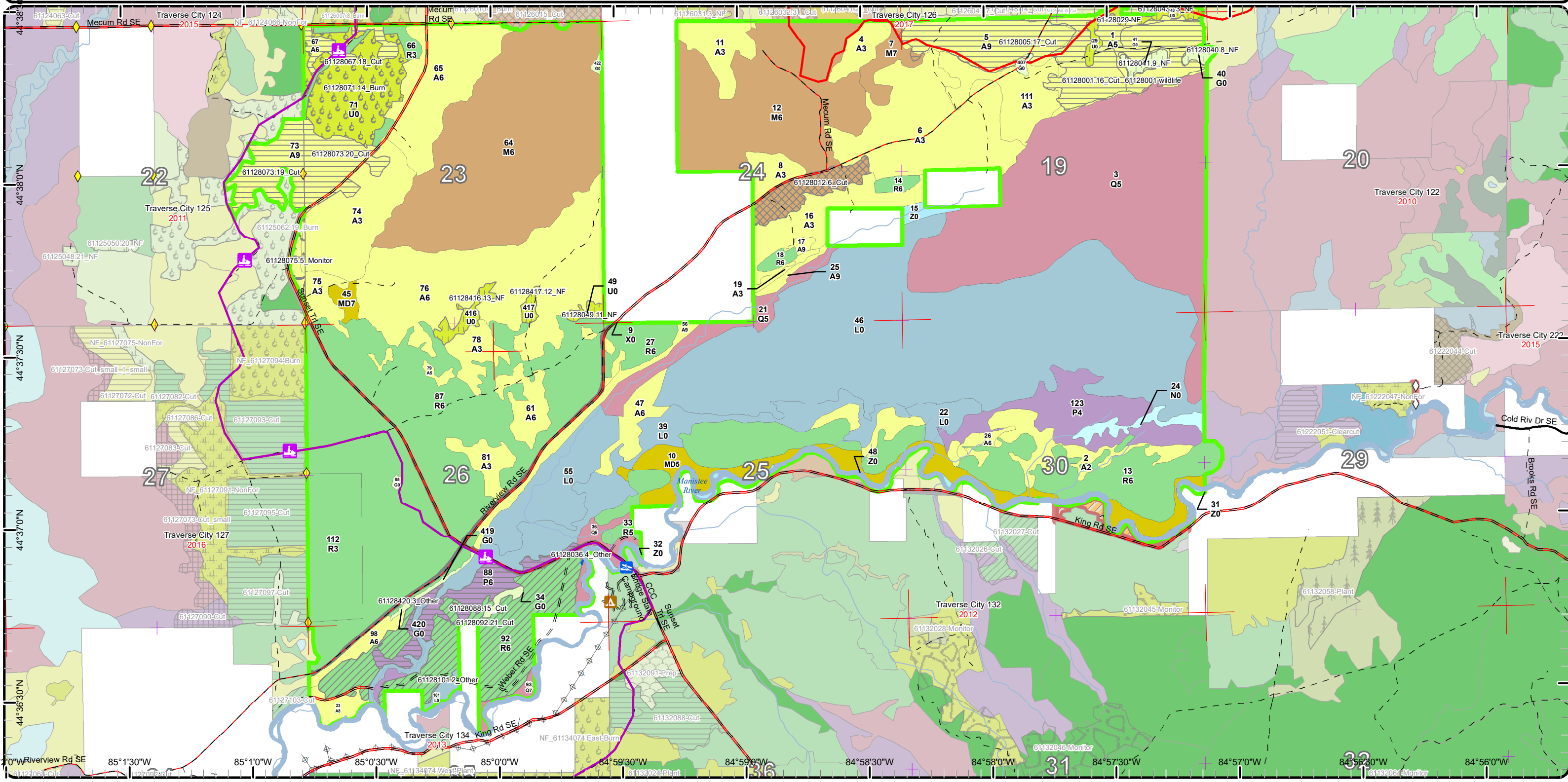
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 128  
 T26N R05W Sec. 19, 30  
 County: Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Outwash  
 YOE: 2019  
 Acres: 3186 GIS Calculated  
 Examiner: Paul Roell  
 Map Revised: 8/8/2017  
 Map Phase: Post-Review

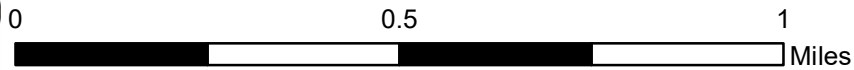
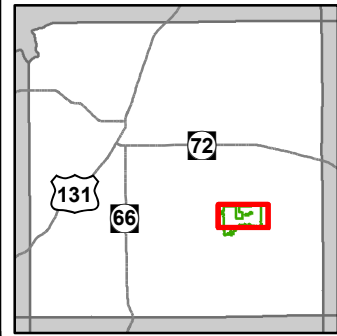


- |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— Miris Corners</li> <li>— Remonumented Section Corners</li> <li>◆ Survey Grade GPS Corners</li> <li>— Counties</li> <li>Boating Access Site</li> <li>Campground</li> <li>ORV Routes</li> <li>Snowmobile Trails</li> <li>Designated ATV</li> <li>Designated ORV Route</li> <li>Designated Snowmobile Trails</li> <li>Paved Roads</li> </ul> | <ul style="list-style-type: none"> <li>County Gravel Roads</li> <li>Gravel Roads</li> <li>County Poor Dirt Roads</li> <li>Poor Dirt Roads</li> <li>Streams</li> <li>Lakes and Rivers All</li> <li>Powerline</li> <li>Compartment Boundary</li> <li>Treatments with Site Conditions</li> <li>Selection (Group, Single Tree)</li> <li>Clearcut (w/Reserves)</li> <li>Other Treatment - See Comments</li> <li>Prescribed Burn</li> <li>Opening Maintenance</li> <li>Regeneration Survey</li> </ul> | <ul style="list-style-type: none"> <li>Thinning (Crown, Low, Systematic)</li> <li>411 - Northern Hardwood</li> <li>413 - Aspen</li> <li>419 - Mixed Upland Deciduous</li> <li>421 - Planted Pines</li> <li>611 - Lowland Deciduous Forest</li> <li>612 - Lowland Coniferous Forest</li> <li>122 - Roads/Parking Lot</li> <li>310 - Herbaceous Openland</li> <li>330 - Low Density Trees</li> <li>500 - Water</li> <li>622 - Lowland Shrub</li> <li>623 - Emergent Wetland</li> <li>Lakes</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

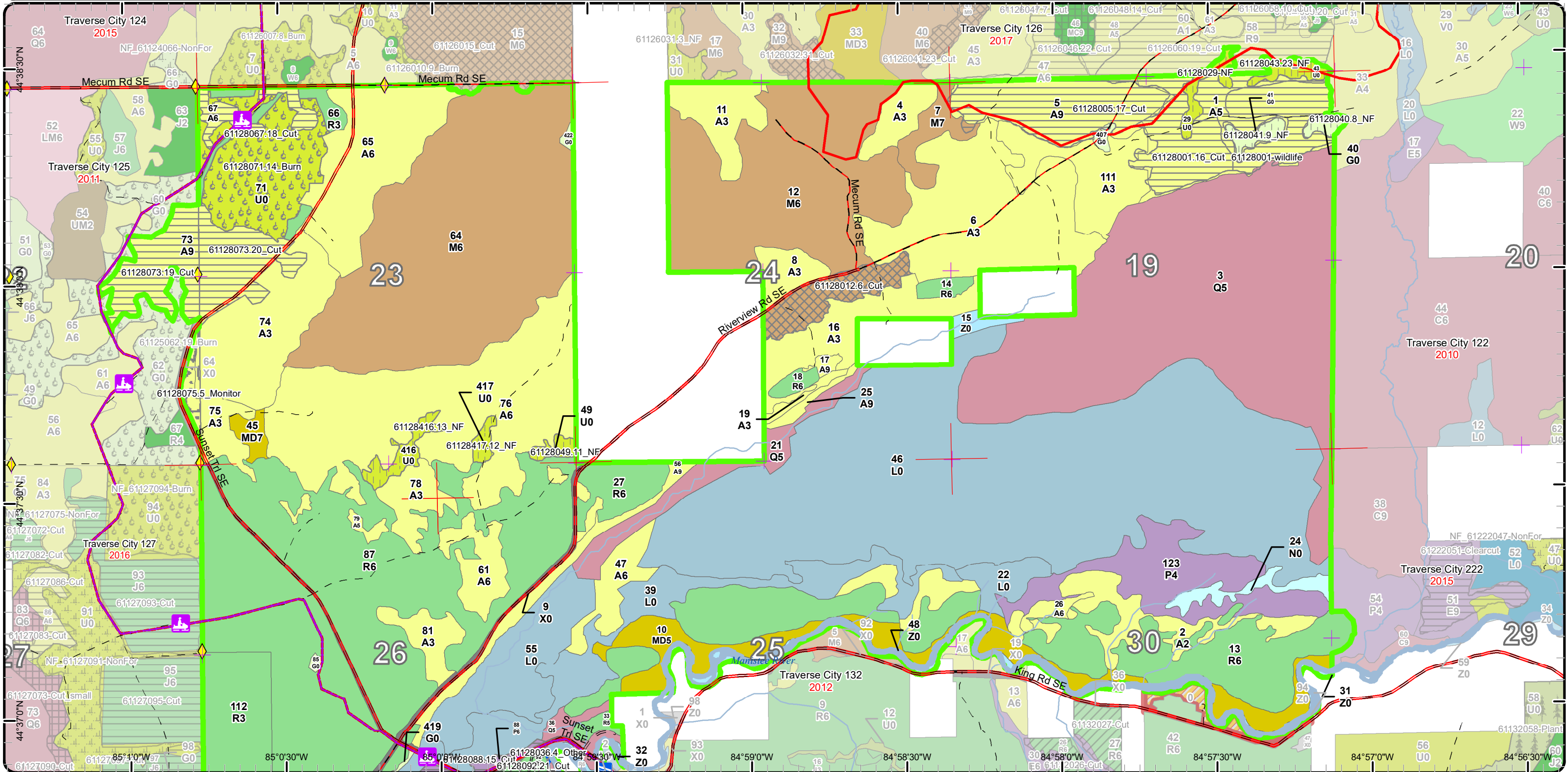


# Cover Type & Treatments Map

Compartment: 128  
 T26N R05W Sec. 19, 30  
 County: Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Outwash  
 YOE: 2019  
 Acres: 3186 GIS Calculated  
 Examiner: Paul Roell  
 Map Revised: 8/8/2017  
 Map Phase: Post-Review

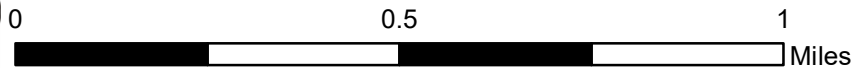
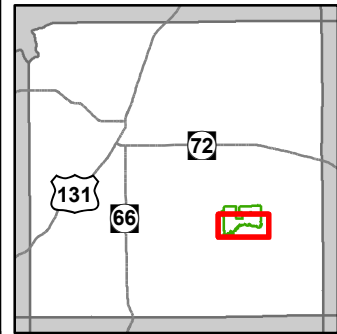


- |                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— Miris Corners</li> <li>— Remonumented Section Corners</li> <li>◆ Survey Grade GPS Corners</li> <li>--- Counties</li> <li>ORV Routes</li> <li>— Snowmobile Trails</li> <li>— Designated ATV</li> <li>--- Designated ORV Route</li> <li>— Designated Snowmobile Trails</li> <li>— Paved Roads</li> <li>— County Gravel Roads</li> <li>— Gravel Roads</li> <li>— County Poor Dirt Roads</li> </ul> | <ul style="list-style-type: none"> <li>— Poor Dirt Roads</li> <li>— Streams</li> <li>— Lakes and Rivers All</li> <li>— Compartment Boundary</li> <li>— Selection (Group, Single Tree)</li> <li>— Clearcut (w/Reserves)</li> <li>— Prescribed Burn</li> <li>— Opening Maintenance</li> <li>— Regeneration Survey</li> <li>— 411 - Northern Hardwood</li> <li>— 413 - Aspen</li> <li>— 419 - Mixed Upland Deciduous</li> <li>— 421 - Planted Pines</li> <li>— 611 - Lowland Deciduous Forest</li> <li>— 612 - Lowland Coniferous Forest</li> </ul> | <ul style="list-style-type: none"> <li>122 - Roads/Parking Lot</li> <li>310 - Herbaceous Openland</li> <li>330 - Low Density Trees</li> <li>500 - Water</li> <li>622 - Lowland Shrub</li> <li>623 - Emergent Wetland</li> <li>Lakes</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

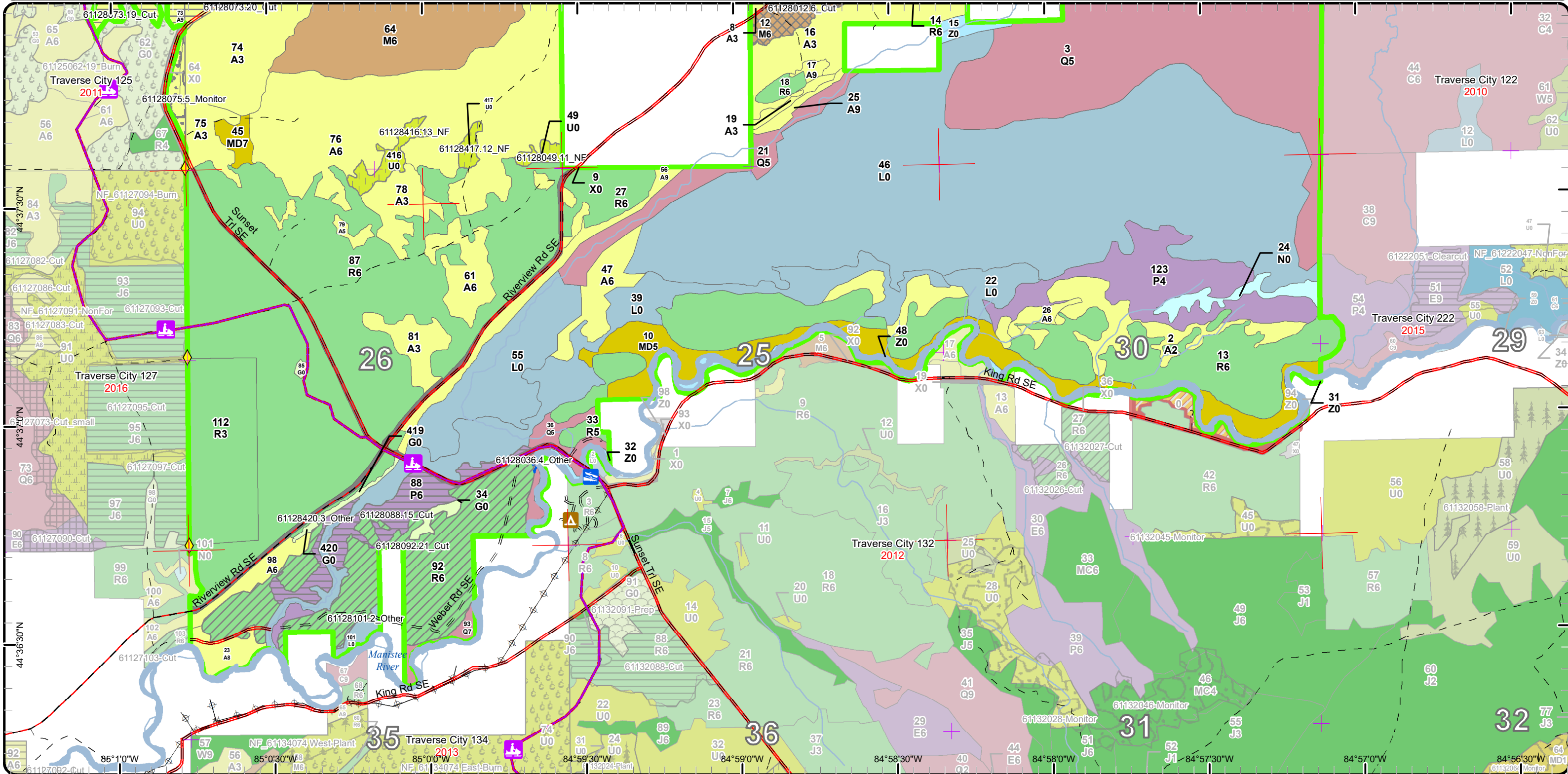


# Cover Type & Treatments Map

Compartment: 128  
 T26N R05W Sec. 19, 30  
 County: Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Outwash  
 YOE: 2019  
 Acres: 3186 GIS Calculated  
 Examiner: Paul Roell  
 Map Revised: 8/8/2017  
 Map Phase: Post-Review



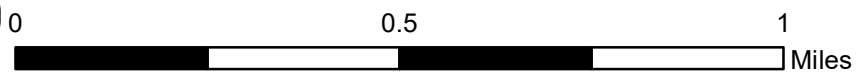
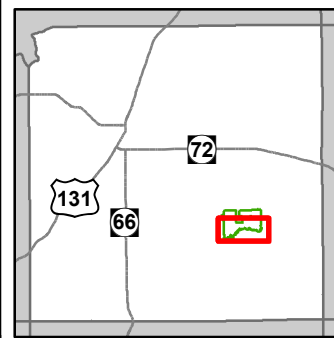
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- Counties
- ▢ Boating Access Site
- ▴ Campground
- 🚗 ORV Routes
- 🚙 Snowmobile Trails
- Designated ORV Route
- Designated Snowmobile Trails
- Paved Roads
- County Gravel Roads
- Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Streams
- ▬ Lakes and Rivers All
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Opening Maintenance
- Regeneration Survey
- Thinning (Crown, Low, Systematic)
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes



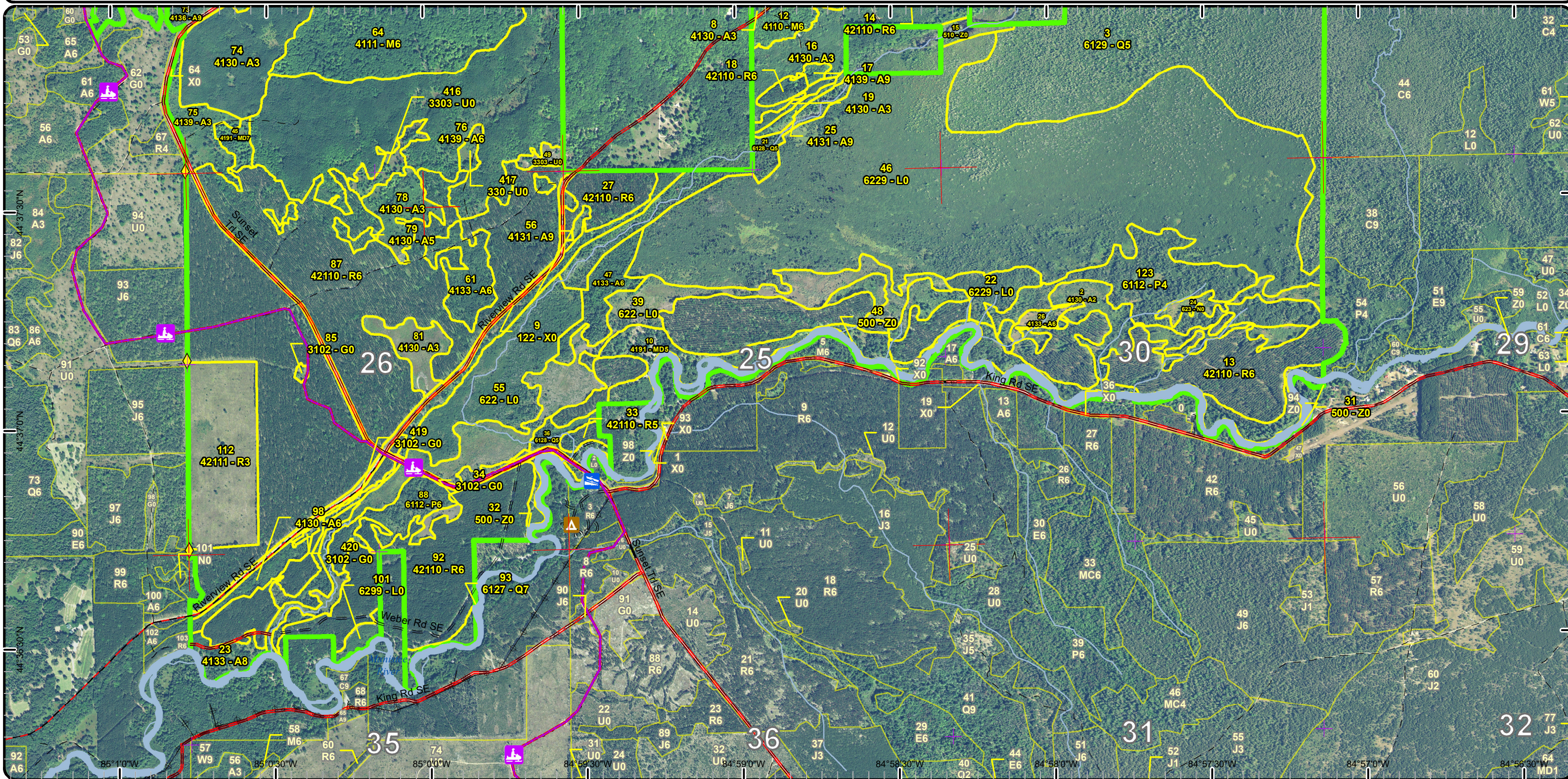


# Stand Boundary Map

Compartment: 128  
 T26N R05W Sec. 19, 30  
 County: Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Outwash  
 YOE: 2019  
 Acres: 3186 GIS Calculated  
 Examiner: Paul Roell  
 Map Revised: 8/8/2017  
 Map Phase: Post-Review



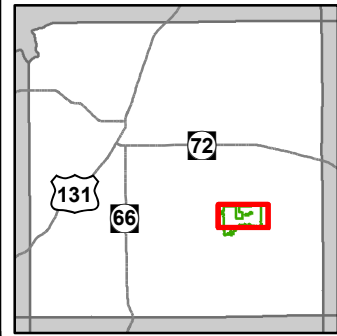
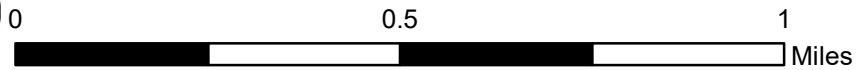
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- Counties
- ▢ Boating Access Site
- ▴ Campground
- Ⓜ ORV Routes
- Ⓜ Snowmobile Trails
- Designated ORV Route
- Designated Snowmobile Trails
- Paved Roads
- County Gravel Roads
- Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Streams
- ▭ Lakes and Rivers All
- ⊕ Powerline
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



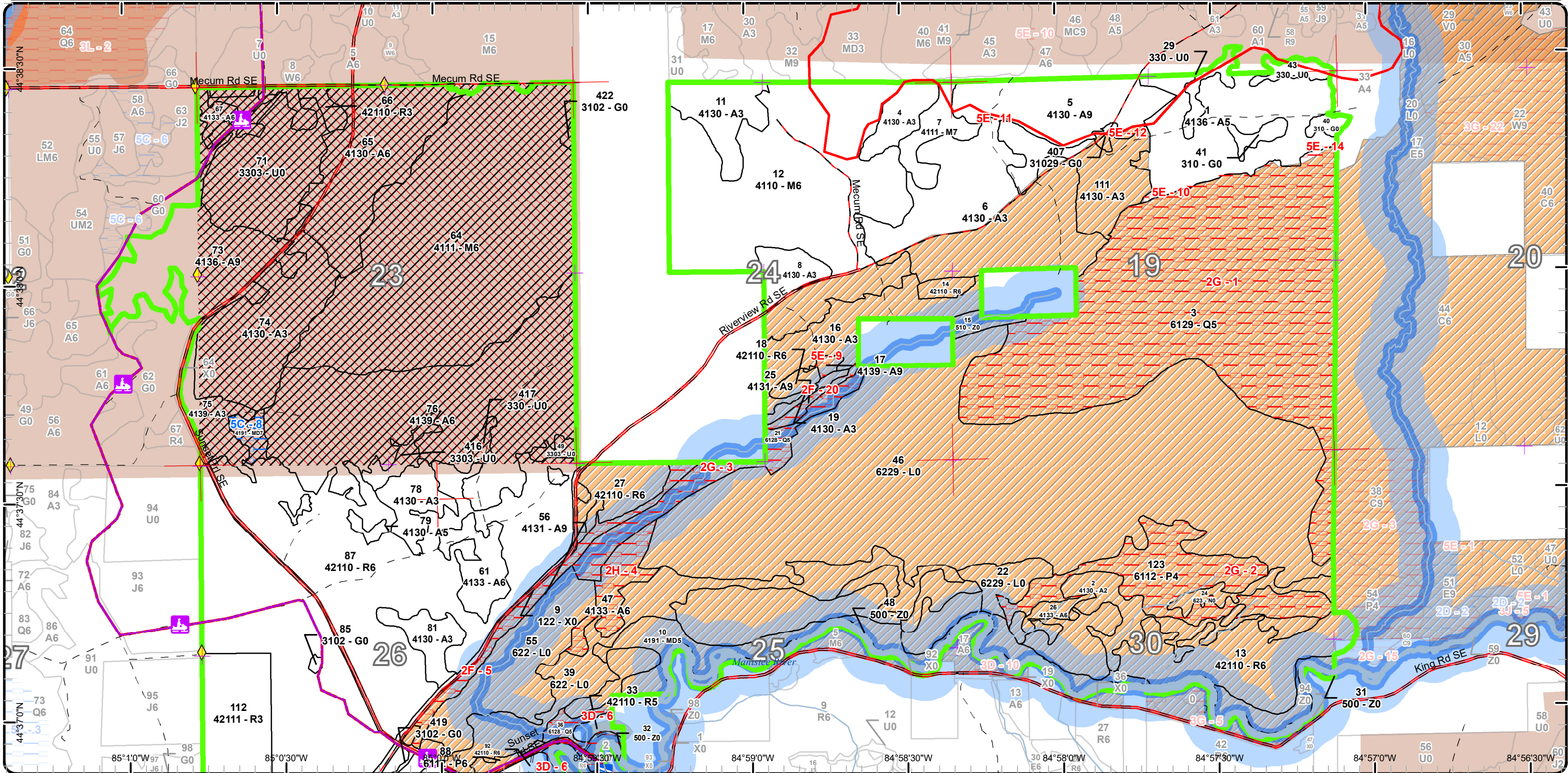


# Special Conservation Areas & Site Conditions Map

Compartment: 128  
 T26N R05W Sec. 19, 30  
 County: Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Outwash  
 YOE: 2019  
 Acres: 3186 GIS Calculated  
 Examiner: Paul Roell  
 Map Revised: 8/8/2017  
 Map Phase: Post-Review

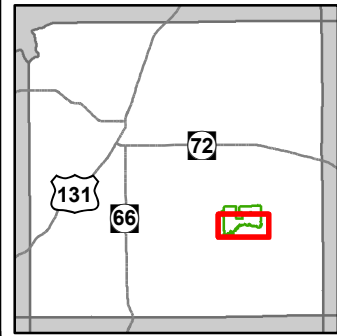
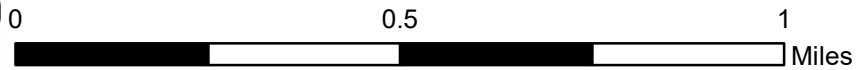


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- Counties
- ORV Routes
- Snowmobile Trails
- Designated ATV
- - - Designated ORV Route
- Designated Snowmobile Trails
- Paved Roads
- County Gravel Roads
- - - Gravel Roads
- - - County Poor Dirt Roads
- - - Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- - - Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- 5E: Long-Term Retention
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Eastern Massasauga Managed Land
- Cold Water Streams
- Cold Water Lakes
- Research, Development, and Military Lands
- State Forest Campground
- Other Habitat Area

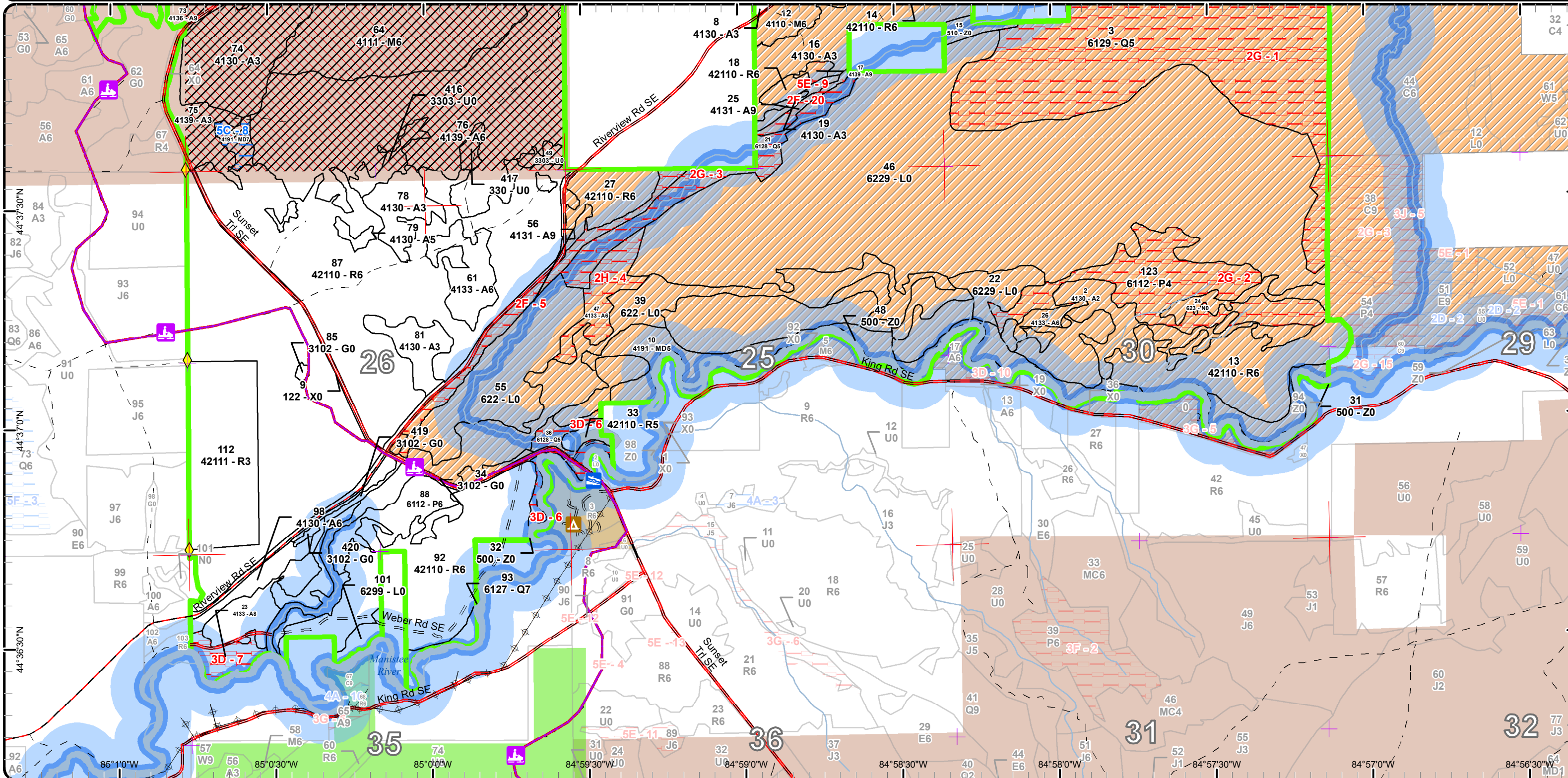


# Special Conservation Areas & Site Conditions Map

Compartment: 128  
 T26N R05W Sec. 19, 30  
 County: Kalkaska  
 Unit: Traverse City  
 Mgmt Area: Grayling Outwash  
 YOE: 2019  
 Acres: 3186 GIS Calculated  
 Examiner: Paul Roell  
 Map Revised: 8/8/2017  
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- Counties
- Boating Access Site
- Campground
- ORV Routes
- Snowmobile Trails
- Designated ORV Route
- Designated Snowmobile Trails
- Paved Roads
- County Gravel Roads
- Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Eastern Massasauga Managed Land
- Kirtland Warbler Habitat
- Cold Water Streams
- Cold Water Lakes
- Research, Development, and Military Lands
- State Forest Campground
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- 5E: Long-Term Retention



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	162	198	12	162	166	155	10	2	0	0	0	0	0	0	0	0	0	867
Herbaceous Openland	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Low-Density Trees	82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	57	29	0	0	0	0	0	0	0	0	0	0	86
Lowland Conifers	0	0	0	0	0	0	0	0	10	32	296	0	0	0	0	0	0	0	338
Lowland Shrub	595	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	594
Marsh	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	52	5	0	0	0	0	0	0	0	0	0	57
Northern Hardwood	0	0	0	0	0	0	0	0	0	190	0	0	0	0	0	0	0	233	423
Red Pine	0	57	11	0	0	0	584	0	0	0	0	0	0	0	0	0	0	0	652
Urban	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Water	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
<b>Total</b>	<b>765</b>	<b>219</b>	<b>209</b>	<b>12</b>	<b>162</b>	<b>166</b>	<b>796</b>	<b>91</b>	<b>7</b>	<b>200</b>	<b>32</b>	<b>296</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>233</b>	<b>3187</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
1	61128001.16_Cut	44.2	4136 - Aspen, Mixed Conifer	Poletimber Medium	48	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Field Boundary - Ready for

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees 2 inches and larger. Require low stumps and chipping of tops. Possibly reroute the recreation trail to the south edge of the stand and use some retention to help protect the trail.

Specs:

Spray to set back the regeneration then plant the pine.

Next Step Pesticide, Skidder/Mechanical; Treatments: SitePrep, Trenching; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Pesticide, Skidder/Mechanical

Acceptable A fully stocked stand of planted red pine.

Regen:

Other

Comment:

Proposed Start Date: 08/15/2017

1	61128001-wildlife	21.2	4136 - Aspen, Mixed Conifer	Poletimber Medium	48	1-50	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Field Boundary - Ready for
---	-------------------	------	-----------------------------	-------------------	----	------	---------	-------------------------	-------------	-----------	----------------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees two inches and larger.

Specs:

This is a wildlife treatment to promote aspen regen for deer browse.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, red maple, and mixed conifer

Regen:

Other

Comment:

Proposed Start Date: 05/22/2017

5	61128005.17_Cut	45.2	4130 - Aspen	Sawtimber Well	55	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Field Boundary - Ready for
---	-----------------	------	--------------	----------------	----	--------	---------	-------------------------	-------------	-----------	----------------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees two inches and larger in diameter. Use minimal area retention.

Specs:

Next Step Harvest, Clearcut with Retention

Treatments:

Acceptable Aspen with a minor component of mixed hardwoods, red maple and pine.

Regen:

Other

Comment:

Proposed Start Date: 08/15/2017

12	61128012.6_Cut	21.4	4110 - Sugar Maple Association	Poletimber Well	87	51-80	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
----	----------------	------	--------------------------------	-----------------	----	-------	---------	-----------------------	-------------------------	-------------	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription mark stand to 70-80 square feet basal area per acre. One regen gap every one to three acres.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable soft and hard maple with a minor component of aspen and basswood

Regen:

Other

Comment:

Proposed Start Date: 05/19/2017



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
29	61128029-NF	6.2	330 - Low-Density Trees	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	3105 - Mixed Upland Herbaceous		Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Remove exotics as needed by herbiciding, or other methods. Seed in forage crop appropriate for site location and seasonal (i.e. summer vs. winter forage) wildlife uses. May want/need to work around existing beneficial vegetation (i.e. blackberry). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

36	61128036.4_Other	0.1	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	80	1-50	Other	Other	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
----	------------------	-----	--------------------------------------------	-------------------	----	------	-------	-------	-------------------------	-----------	----------------------

**Habitat Cut: No**

**Site Condition: Recreational/Scenic**

Prescription next step is 3rd row thin but mifi data won't let me edit it so I am just entering this step to shut it up [KKA 12/16/15]

Specs:

Next Step  
Treatments:

Acceptable n/a  
Regen:

Other Percent to Treat = 100%  
Comment:

Proposed Start Date: 05/19/2017

40	61128040.8_NF	3.1	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop/ Grass Planting	3105 - Mixed Upland Herbaceous		Draft Field Boundary
----	---------------	-----	---------------------------	------------	--	-------------	--------------	---------------------------------	--------------------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription This opening is a traditional wildlife planting adjacent to the Black Creek Deer Yard. Plant to annual rye. Consider alternative seed mixes as soil conditions allow. Resulting forage should be suitable for early spring and late fall grazing. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

41	61128041.9_NF	4.3	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop/ Grass Planting	3105 - Mixed Upland Herbaceous		Draft Field Boundary
----	---------------	-----	---------------------------	------------	--	-------------	--------------	---------------------------------	--------------------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription This opening is a traditional wildlife planting adjacent to the Black Creek Deer Yard. Plant to annual rye. Consider alternative seed mixes as soil conditions allow. Resulting forage should be suitable for early spring and late fall grazing. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
43	61128043.23_NF	5.6	330 - Low-Density Trees	Nonstocked			NonForestMgt	Herbaceous/Crop/Grass Planting	310 - Herbaceous Openland		Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Remove exotics as needed by herbiciding, or other methods. Seed in forage crop appropriate for site location and seasonal (i.e. summer vs. winter forage) wildlife uses. May want/need to work around existing beneficial vegetation (i.e. blackberry). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2016

49	61128049.11_NF	3.3	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		Draft Field Boundary
----	----------------	-----	--------------------------------	------------	--	-------------	--------------	---------------	---------------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

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

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

67	61128067.18_Cut	10.7	4133 - Aspen, Mixed Pine	Poetimber Well	51	51-80	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary
----	-----------------	------	--------------------------	----------------	----	-------	---------	----------	-------------	-----------	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Cut all trees two inches and larger. Leave all pine. Protect the snowmobile trail. No retention to maximize regeneration.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen with a minor component of red maple and pine.  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

71	61128071.14_Burn	57.3	3303 - Mixed Low Density Trees	Nonstocked			Burn	Opening	3105 - Mixed Upland Herbaceous		Draft Field Boundary
----	------------------	------	--------------------------------	------------	--	--	------	---------	--------------------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Burn on a rotational basis in conjunction with burn prescriptions in compartments 61125 and 61126. Goal is to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.  
Specs: Portions of this stand that are not able to burn should be treated mechanically to achieve similar MO as the burn unit. Back burn or foam around desirable mature trees and vegetation.

Next Step NonForestMgt, Other - Specify

Treatments:

Acceptable  
Regen:

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

Proposed Start Date: 10/01/2018



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
73	61128073.19_Cut	30.9	4136 - Aspen, Mixed Conifer	Sawtimber Well	55	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

**Habitat Cut: No**                      **Site Condition:**

Prescription Cut all trees two inches and larger. Leave all white and red pine. Protect the snowmobile trail during the harvest.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen with a component of red maple and pine.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

73	61128073.20_Cut	28.6	4136 - Aspen, Mixed Conifer	Sawtimber Well	55	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
----	-----------------	------	-----------------------------	----------------	----	-------	---------	-------------------------	-------------	-----------	----------------------

**Habitat Cut: No**                      **Site Condition:**

Prescription Cut all trees two inches and larger leave all pine.

Specs: Use minimal area retention.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen with a minor component of red maple and pine.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

75	61128075.5_Monitor	5.9	4139 - Aspen, Mixed Deciduous	Sapling Well	5	Immature	Monitoring	Natural Regen (Re-Inventory)	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
----	--------------------	-----	-------------------------------	--------------	---	----------	------------	------------------------------	-------------------------------	-----------	----------------------

**Habitat Cut: No**                      **Site Condition:**

Prescription

Specs:

Next Step

Treatments:

Acceptable aspen

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 05/19/2017

88	61128088.15_Cut	27.1	6112 - Lowland Aspen	Poletimber Well	61	81-110	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Draft Field Boundary
----	-----------------	------	----------------------	-----------------	----	--------	---------	-------------------------	----------------------	-----------	----------------------

**Habitat Cut: No**                      **Site Condition:**

Prescription cut all trees two inches and larger in diameter. Leave all pine. Most likely going to be a winter harvest maybe dry summer.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable aspen and with a minor component of red maple and pine.

Regen:

Other

Comment:

Proposed Start Date: 02/22/2017





S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
92	61128092.21_Cut	95.7	42110 - Planted Red Pine	Poletimber Well	52	171-200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Cut one row leave two or cut two rows and leave three whatever current row spacing allows.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

101	61128101.2_Other	0.3	6299 - Lowland Shrub (OI)	Nonstocked			Other	Other	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
-----	------------------	-----	---------------------------	------------	--	--	-------	-------	-------------------------	-----------	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription This is just to satisfy mifi error message.

Specs:

Next Step  
Treatments:

Acceptable n/a  
Regen:

Other Percent to Treat = 100%  
Comment:

Proposed Start Date: 05/19/2017

416	61128416.13_NF	7.3	3303 - Mixed Low Density Trees	Nonstocked			NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		Draft Field Boundary
-----	----------------	-----	--------------------------------	------------	--	--	--------------	---------------	---------------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

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

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

417	61128417.12_NF	3.0	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		Draft Field Boundary
-----	----------------	-----	-------------------------	------------	--	-------------	--------------	---------------	---------------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

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

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018



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
420	61128420.3_Other	0.0	3102 - Grass	Nonstocked		Unspecified	Other	Other	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription This is just to satisfy a mifi error message.

Specs:

Next Step

Treatments:

Acceptable n/a

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 05/19/2017

**Total Treatment  
Acreage Proposed: 421.4**

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 128

Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available
-------------	-----------------	--------------------------------	---------------------

### Dominant Site Conditions

	Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions						
					5C	2F	2G	2H	3D	3J	5E
866	814	0	52	Aspen		20		17	10		5
16	16	0	0	Herbaceous Openland							
83	83	0	0	Low-Density Trees						0	
86	29	0	57	Lowland Aspen/Balsam Poplar			57				
338	5	0	333	Lowland Conifers			322		10		
594	594	0	0	Lowland Shrub							
9	9	0	0	Marsh							
57	52	5	0	Mixed Upland Deciduous	5						
422	422	0	0	Northern Hardwood							
651	651	0	0	Red Pine							
22	22	0	0	Urban							
40	40	0	0	Water							
3,186	2,739	5	442	Total Forested Acres	5	20	379	17	20	0	5
	86%	0%	14%	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	2G: Too wet (sensitive soils, does not include access issues)	296	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	57	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 128

Year of Entry: 2019

3	<b>Unavailable</b>	2G: Too wet (sensitive soils, does not include access issues)	27	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
4	<b>Unavailable</b>	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Unavailable</b>	2F: Too steep	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	<b>Unavailable</b>	3D: Recreational / Scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
7	<b>Unavailable</b>	3D: Recreational / Scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
8	<b>Available</b>	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

**Report 4 – Site Conditions**

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 128

Year of Entry: 2019

9	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention for stand 16							
10	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
14	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
20	Unavailable	2F: Too steep	4	3G: Other Influence zones - See comments	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
----------	--------------	-------------	----------------	-------

---

Comments

---



**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
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.

S  
t  
a  
n  
d

## Traverse City Mgt. Unit

## Report 7 – Forested Stands

Compartment: 128  
Year of Entry: 2019

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4136 - Aspen, Mixed Conifer	Poletimber Medium	68.6	48	1-50	Aspen growing on pine soil. low quality multi aged stand
2	4130 - Aspen	Sapling Medium	41.2	6	Immature	
3	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	296.0	109	1-50	
4	4130 - Aspen	Sapling Well	12.9	19	Immature	Stand was cut under Timber Sale Contract # 24-95-01.
5	4130 - Aspen	Sawtimber Well	47.2	55	81-110	
6	4130 - Aspen	Sapling Well	101.1	19	Immature	Timber Sale # 24-95-01
7	4111 - S.Maple, Hard Mast Association	Sawtimber Poor	13.8	86	1-50	Stand was cut under Timber Sale Contract # 24-95-01. Stand has aspen encroaching into if from stand 4 and from stand 6.
8	4130 - Aspen	Sapling Well	12.1	25	Immature	Stand is at the point of Converting from an A3 to A6. Trees are starting to reach merchantability.
10	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	51.8	65	Unspecified	
11	4130 - Aspen	Sapling Well	23.3	19	Immature	Sale was cut under Timber Sale contract # 24-95-01. Stand has several grass opening scattered throughout it.
12	4110 - Sugar Maple Association	Poletimber Well	175.6	87	51-80	Very hilly terrain.
13	42110 - Planted Red Pine	Poletimber Well	131.1	56	111-140	
14	42110 - Planted Red Pine	Poletimber Well	4.3	53	141-170	Timber sale was set up and sold in 1995, #25-95. No cutting occurred, so the sale was closed out and bond was retained. Stand cut with Survey Popple and Pine 61-045-09-01 KJS
16	4130 - Aspen	Sapling Well	37.0	8	Immature	Stand cut with Survey Popple and Pine 61-045-09-01 Retention is @ west end of stand by R6 stand as well as some scattered Beech and along ridge top @ south end of stand. Stand has already fully regenerated.
17	4139 - Aspen, Mixed Deciduous	Sawtimber Well	2.0	75	81-110	Retention from the harvest of stand 16.
18	42110 - Planted Red Pine	Poletimber Well	3.8	52	141-170	Timber sale was set up and sold in 1995, #25-95. No cutting occurred, so the sale was closed out and bond was retained. Stand thinned with Survey Popple and Pine 61-045-09-01 KJS





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4130 - Aspen	Sapling Well	3.1	19	Immature	Timber Sale # 24-95-01
21	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	26.7	91	51-80	A creek flows through this stand
23	4133 - Aspen, Mixed Pine	Sawtimber Medium	9.9	65	51-80	
25	4131 - Aspen, Oak	Sawtimber Well	3.7	57	51-80	On side ridge along Riverview Road transition to lowland
26	4133 - Aspen, Mixed Pine	Poletimber Well	4.2	35	51-80	
27	42110 - Planted Red Pine	Poletimber Well	17.8	52	111-140	stand row thinned sunset west red 61-035-09
33	42110 - Planted Red Pine	Poletimber Medium	3.5	52	171-200	There is a camp ground in this stand.
36	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	10.3	80	1-50	Stand is adjacent to Manistee river. Stand has several intermittent streams that flow in to the Manistee also. Stand has a campground in it.
45	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	5.4	78	1-50	
47	4133 - Aspen, Mixed Pine	Poletimber Well	17.2	50	51-80	surrounded by drainages parts of the stand could be harvested
56	4131 - Aspen, Oak	Sawtimber Well	16.5	57	51-80	On side ridge along Riverview Road transition to lowland
61	4133 - Aspen, Mixed Pine	Poletimber Well	17.6	45	51-80	
64	4111 - S.Maple, Hard Mast Association	Poletimber Well	232.9	70	51-80	Stand has pockets of red pine in. Stand is made up of rolling hills. Previous treatments created gaps. These gaps have good amount of aspen growing up in it. The stand has a good amount beech shrub / saplings scattered throughout it. Stand has beech bark diseases present in it at this time.
65	4130 - Aspen	Poletimber Well	67.0	43	81-110	
66	42110 - Planted Red Pine	Sapling Well	11.0	12	Immature	
67	4133 - Aspen, Mixed Pine	Poletimber Well	10.7	51	51-80	
73	4136 - Aspen, Mixed Conifer	Sawtimber Well	59.4	55	51-80	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
74	4130 - Aspen	Sapling Well	57.7	19	Immature	
75	4139 - Aspen, Mixed Deciduous	Sapling Well	16.8	5	Immature	The stand was cut with Sunview aspen, turned out good. All pine and oak was left. Some buncher piles were left on site which will function nicely as hare cover.
76	4139 - Aspen, Mixed Deciduous	Poletimber Well	157.3	34	51-80	There are a few scattered oak and white pine in the stand.
78	4130 - Aspen	Sapling Well	16.1	5	Immature	Stand cut in winter 2012 with sunview aspen. Regenerated very nicely already, oak, some maple and pine left.
79	4130 - Aspen	Poletimber Medium	3.8	45	1-50	small pocket of aspen oak and red maple
81	4130 - Aspen	Sapling Well	15.6	4	Immature	Stumps piled in old landing from road right of way widening project.
87	42110 - Planted Red Pine	Poletimber Well	327.0	52	111-140	stand row thinned sunset west red 61-035-09
88	6112 - Lowland Aspen	Poletimber Well	29.4	61	81-110	
92	42110 - Planted Red Pine	Poletimber Well	95.7	52	171-200	OPIIC - FMD: 2007 - Hagan - Hold until lease expires in stand 94. Not third row thinned yet. Might want to consider leave 3 cut 2 do to various row spacing throughout the entire stand.
93	6127 - Lowland Pine	Sawtimber Poor	4.9	90	1-50	Combination of L and Manistee River. Leased until 2011. Old cabin in the stand.
98	4130 - Aspen	Poletimber Well	9.0	45	1-50	There is some older aspen in the stand also.
111	4130 - Aspen	Sapling Well	35.6	8	Immature	Clearcut with retention. Place retention along ORV trail. When stand 5 is cut continue retention to the north. Stand cut with Survey Popple and Pine 61-045-09-01 Blowdown may be an issue along trail. Stand has regenerated nicely for the most part, was pretty poor stocking to start with. Some 6 inch diameter aspen left scattered throughout the stand.
112	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	56.8	6	Immature	3-year regen survey in 2016. Sub-unit 1, RP: 467 TPA, 667 RM, 183 cherry. Sub-unit 2, RP: 540 TPA. Sub-unit 3, 690 TPA. FTP C62-800. Sunset West Red, 61-035-09-01.
123	6112 - Lowland Aspen	Poletimber Poor	56.8	52	81-110	Standing water



Stand	Cover Type	Acres	Managed Site	General Comments:
9	122 - Road/Parking Lot	22.0	No	stand row thinned sunset west red 61-035-09
15	510- Water (OI)	4.4	No	Active beaver pond
22	6229 - Mixed lowland shrub	12.5	No	
24	623 - Emergent Wetland	9.4	No	OPIC - FMD: 2007 - Hagan - To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed. Go into next compartment and pick up the rest of the red pine there if thinning this stand. Maybe 3-4 acres. This is actually a shelterwood with reserves, with retention being the reserves. The cut is to accelerate this stand to a more natural stand condition. Row thinned winter 2011 (KJS) 128 River Pine. Cut two left two due to tough access. Goal is to push to more natural feeling stand along the river.
29	330 - Low-Density Trees	6.2	No	
31	500 - Water	9.0	No	
32	500 - Water	6.2	No	
34	3102 - Grass	2.8	No	OPIC - FMD: OI Stand Year Origin was
39	622 - Lowland Shrub	78.9	No	
40	310 - Herbaceous Openland	3.1	Yes	
41	310 - Herbaceous Openland	4.3	Yes	
43	330 - Low-Density Trees	5.6	No	
46	6229 - Mixed lowland shrub	447.2	No	
48	500 - Water	20.6	No	
49	3303 - Mixed Low Density Trees	3.3	No	Scattered cherry and pine.
55	622 - Lowland Shrub	51.2	No	Creek flows through the stand
71	3303 - Mixed Low Density Trees	57.3	Yes	Scattered cherry with some white pine



Stand	Cover Type	Acres	Managed Site	General Comments:
85	3102 - Grass	0.8	No	OPIC - FMD: Scattered small aspen and red maple clumps.
101	6299 - Lowland Shrub (OI)	4.5	No	
407	31029 - Grass (OI)	1.7	No	
416	3303 - Mixed Low Density Trees	7.3	No	scattered red maple, red pine, cherry, aspen, and white pine in the stand
417	330 - Low-Density Trees	3.0	Yes	
419	3102 - Grass	1.8	No	OPIC - FMD: More U type in some areas with scattered aspen and oak.
420	3102 - Grass	0.8	No	OPIC - FMD: OI Stand Year Origin was
422	3102 - Grass	1.1	No	OPIC - FMD: OI Stand Year Origin was