



# Compartment Review Presentation

## Traverse City Forest Management Unit

Compartment 61019

Entry Year 2018

Acreage: 1,870

County Benzie

Management Area: Manistee Plains

**Revision Date:** 2016-06-09

**Stand Examiner:** Craig Allen

### Legal Description:

T25N- R13W; Sections 1, 12, 13

### Identified Planning Goals:

Compartment 19 is a part of the Manistee Plains management area (MA). Vegetation management in this MA will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Betsie River (a designated natural river), Bear Creek and the Grass Lake Flooding State Wildlife Management Area; threatened, endangered and special concern species; and provide for forest-based recreational uses. The primary attributes and associated uses that influence and drive management in the Manistee Plains management area are wood fiber production, wildlife habitat for existing species and recreational uses. Management activities will emphasize the age, size and species distribution within cover types. Expected trends within this 10-year planning period are increased recreation pressure and continued management to balance cover type age-class distributions for timber and wildlife habitat.

### Soil and topography:

The topography is mostly level. Approximately half of the compartment is lowlands. The upland areas consist of the well drained Kalkaska- Rubicon soil association. Lowland areas of wet and semi- wet flats are made up of permeable Roscommon- Augres- Crosswell soils.

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

This compartment is part of a large block of State ownership. It is bordered by other State land except for the east side and the southeast ¼ of section 13. The private lands in the area have many residential homes and continue to experience much land fragmentation. There are vacation and retirement homes in the area.

### Unique Natural Features:

Grass Lake Swamp, Pickerel Creek, Betsie River and Twin Lakes are all natural feature components of this compartment. The part of the Betsie River contained within the compartment is not part of the Michigan Natural River Designation. The designated portion starts at the Grass Lake dam, then extends downstream to Betsie Lake. This compartment contains or is close to the headwaters for the Little Betsie River to the south.

### Archeological, Historical, and Cultural Features:

There are no known features of this kind within the compartment. However, early Native Americans would commonly establish settlements along the Betsie River.

### Special Management Designations or Considerations:

There are no special Management designations or Considerations for this compartment.

### Watershed and Fisheries Considerations:

The Betsie River, the Grass Lake Flooding, Twin Lake, Upper Twin Lake, and several unnamed tributaries are located in Compartment 19. The unnamed tributary in western Section 13 that flows into Twin Lake is a Designated Trout Stream. The Grass Lake Flooding, Twin Lake, and Upper Twin Lake offer fishing opportunities for northern pike, largemouth bass, and panfish. The Grass Lake Dam may be a candidate for removal, depending on the recommendations of Wildlife Division for the Grass Lake Wildlife Flooding. Removing the dam would provide some benefit for brown trout, steelhead, coho salmon, and Chinook salmon in the Betsie River. (Fisheries Division, Cadillac)

### Wildlife Habitat Considerations:

Compartment 19 is part of a broad, flat, outwash plain extending to the north and southwest, and comprised of poorly drained peat and muck soils. The low relief and poor soil permeability affect water flow and retention in the Compartment by causing pronounced meandering in the directions of the Betsie River and its tributary, Pickerel Creek. Twin and Upper Twin Lakes, and Grass Lake in Compartment 18 to the north, are shallow lakes surrounded by extensive marsh and

forested wetlands creating a landscape resembling a large natural sponge. The Grass Lake Dam, located downstream from this compartment, spans the Betsie River and helps to maintain water depths throughout the wetland types. A mix of lowland conifer and hardwood types dominate the forested stands. Aspen dominates the forested stands where small intrusions of neighboring Land Type Associations provide a landscape of higher elevations. Ten openings interspersed throughout the compartment are proposed for treatment by Wildlife Division.

Wildlife priorities in this compartment focus on managing the mix of wetland and upland cover types to promote a variety of aquatic and semi-aquatic vertebrate species. Beaver, mink, muskrat, bald eagle, osprey, great blue heron, and a variety of waterfowl species use the lakes and streams. The interspersed of forested and non-forested stands along a broad hydrological continuum creates a diversity of ecological niches for plants and animals to fill. This mix enhances the value of this compartment as a winter yarding area for white-tailed deer. Black bear, coyote, bobcat, porcupine, black-capped chickadee, raven, and great-horned owl commonly use deer yards.

The aspen stands and non-forested openings in the adjacent uplands provide opportunities to manage for species preferring periodic removal of shade intolerant cover types. Clearcutting aspen to create a matrix of smaller stands of differing ages creates optimal habitat for ruffed grouse and can address their habitat needs throughout their life cycle. Younger stands provide cover for drumming and raising broods while older stands provide buds and catkins for food in the winter and spring, respectively. Leaving fruiting shrubs and coarse woody debris in a form suitable for drumming logs further increases the value of managed aspen stands to ruffed grouse and other species using this cover type. Woodcock prefer areas that are similar to grouse, but with a higher water table. The moist soils allow woodcock to forage for earthworms throughout the summer. This compartment contains poorly drained soils and is well suited to nesting and rearing broods. The mix of managed openings and aspen stands providing breeding grounds, feeding, and shelter for woodcock, and are favored habitat for white-tailed deer, downy woodpecker, sharp-shinned hawk, wild turkey, and spotted salamander. Openings managed as rye fields also provide an important food source for white-tailed deer in the fall as they gain weight for winter and in the early spring as they emerge from winter yards in nearby conifer swamps. (Wildlife Division, Traverse City)

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 1,000 feet. Beneath the glacial drift is the Devonian Ellsworth Shale. The Ellsworth is used for cement products. A gravel pit is located two miles to the east and there may be some potential. This area is located just north of the Niagaran reef trend and is in an area of Antrim Shale leasing and development. Most of the Compartment is leased for oil and gas development. (Tom Hoane, DNR Geologist, 9/07/06)

### **Vehicle Access:**

There are seasonal county roads offering good access to State lands. There are also many forest "2-track" roads in various areas of the compartment that are in good condition and are used for public and DNR land management accessibility. Due to its rough condition (water holes, etc.), there may be a need for some road repair work to the seasonal county road located along the east side of section 12 and 1.

### **Survey Needs:**

There are no known survey needs in this compartment at this time.

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

The Grass Lake State Forest Campground is located in section 2 to the west of this compartment. There is an informal boat launch / access site to the Betsie River (south off Betsie River Rd.) located on the edge of State land in the NE quarter section of section one. Hunting, fishing, trapping and camping are recreational activities that are enjoyed within the compartment.

### **Fire Protection:**

This area has wildfire protection by the Thompsonville Fire Department and the DNR Platte River and Traverse City Field Offices. Access is acceptable in this compartment, and there is only a minor history of wildfire. The majority of this compartment is a hardwood type, so the opportunity for a large fire is minimal.

### **Additional Compartment Information:**

- Lands recommended for disposal: There are no State lands in this compartment recommended for disposal.
- Lands recommended for acquisition: There is no Private owned lands within the compartment. Although Private lands in the south end of section 13 may possibly be of State interest if they should come up for sale. These lands would make land management easier with better access and allowing more contiguous land area for Public enjoyment and use. This would connect State ownership to Traverse Road (a county maintained road).

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

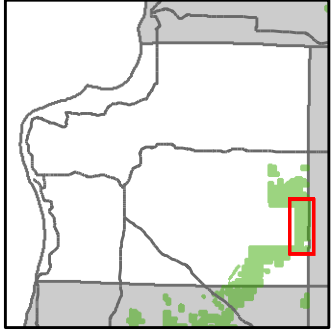
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

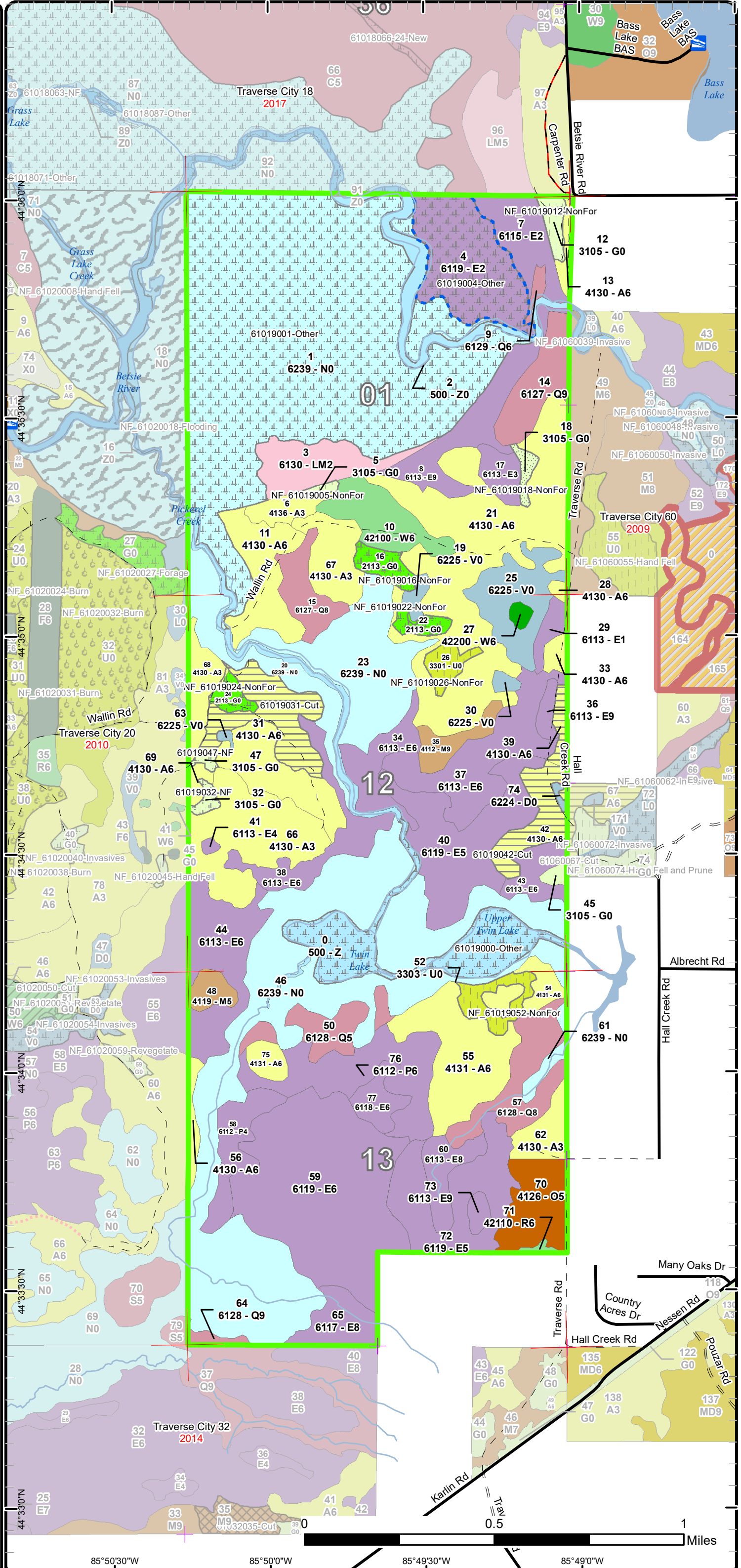
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 19  
 T25N R13W 01, 12, 13  
 County: Benzie  
 Unit: Traverse City  
 Mgmt Area: Manistee Plains  
 YOE: 2018  
 Acres: 1870 GIS Calculated  
 Examiner: Craig Allen  
 Map Revised: 6/10/2016  
 Map Phase: Web-Post



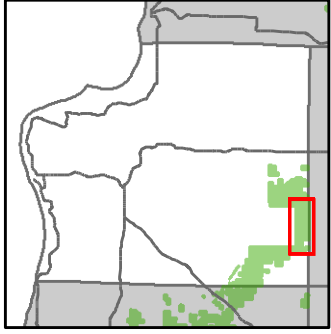
- Miris Corners
- + Remonumented Section Corners
- Boating Access Site
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Rivers
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Opening Maintenance
- Mowing
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 211 - Cropland
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes



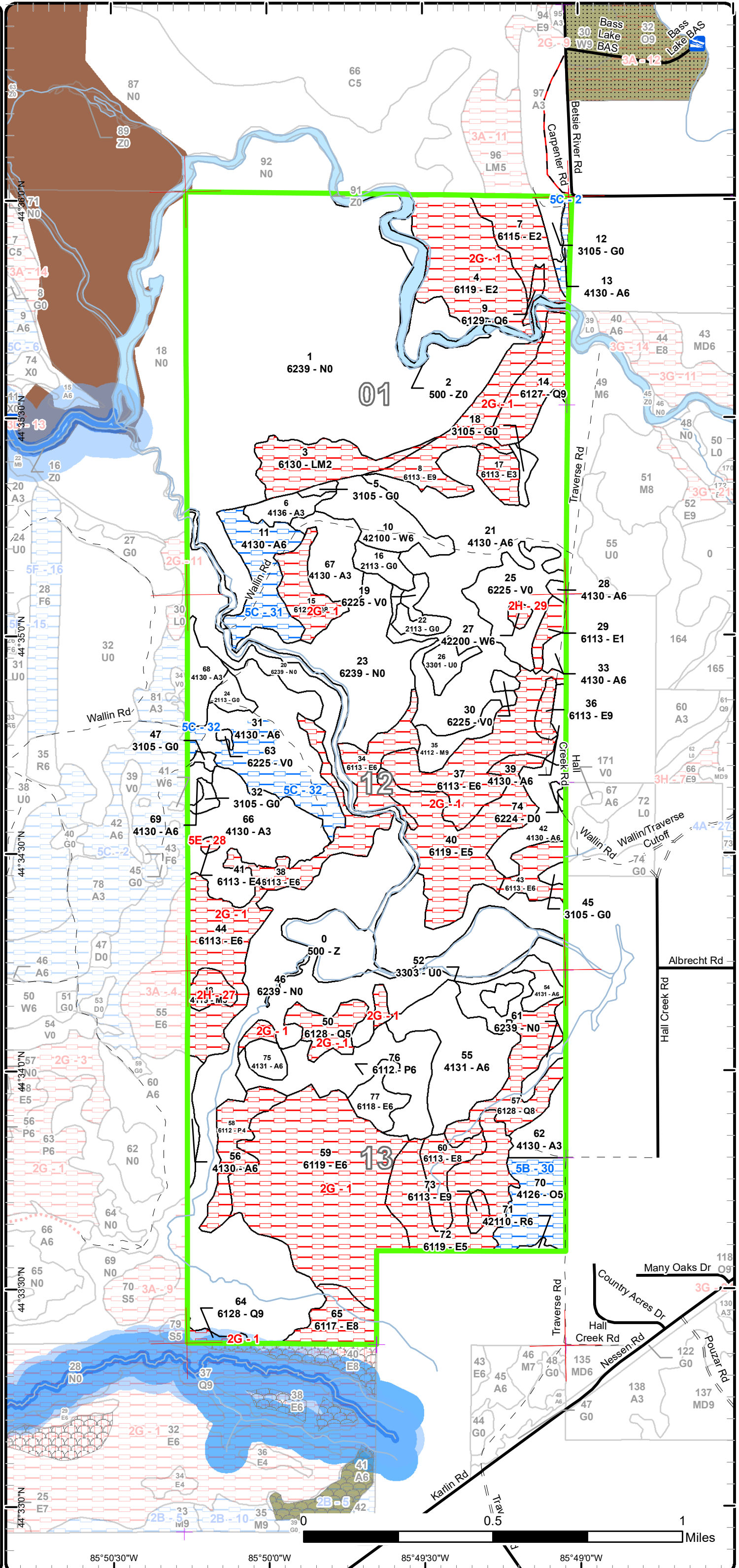


# Special Conservation Areas & Site Conditions Map

Compartment: 19  
 T25N R13W 01, 12, 13  
 County: Benzie  
 Unit: Traverse City  
 Mgmt Area: Manistee Plains  
 YOE: 2018  
 Acres: 1870 GIS Calculated  
 Examiner: Craig Allen  
 Map Revised: 6/10/2016  
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- Miris Corners
- Remonumented Section Corners
- Boating Access Site
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 5E: Long-Term Retention
- Stand Boundaries
- Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Wildlife Management Areas
- Potential Old Growth
- Other SCA (No Category Assigned)



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	96	0	0	0	187	107	0	0	0	0	0	0	0	0	0	0	0	390
Bog	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Cropland	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Herbaceous Openland	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Low-Density Trees	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Lowland Aspen/Balsam Poplar	0	0	0	0	0	41	0	18	0	0	0	0	0	0	0	0	0	0	59
Lowland Conifers	0	0	0	0	0	0	0	0	15	26	45	0	0	0	0	0	0	0	86
Lowland Deciduous	0	0	0	0	50	138	1	6	0	226	64	0	0	0	0	0	0	0	485
Lowland Mixed Forest	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	24
Marsh	599	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	599
Northern Hardwood	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15
Oak	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	24
Red Pine	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Treed Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
White Pine	0	0	0	0	0	23	0	0	0	2	0	0	0	0	0	0	0	0	25
<b>Total</b>	<b>701</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>390</b>	<b>108</b>	<b>48</b>	<b>0</b>	<b>256</b>	<b>116</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1810</b>



## Report 2 – Treatment Summary

Traverse City Mgt. Unit  
Year of Entry: 2018

Acres of Harvest

Compartment 19  
Total Compartment Acres: 1,870

Commercial Harvest - 49  
Harvests with Site Condition - 0  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen		49	0	0	0	0	0	0	0	0	49
	<b>Total</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>

### Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		49	0	0	0	0	0	408	47		504
Next Step		0	0	0	0	0	49	0	0		49
	<b>Total</b>	<b>49</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>408</b>	<b>47</b>		<b>553</b>





Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
0	61019000-Other	45.2	500 - Water				Other	Other	500 - Water		Proposal

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

Prescription waterfowl nest structures.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

1	61019001-Other	315.1	6239 - Mixed Emergent Wetland	Nonstocked		Unspecified	Other	Other	629 - Mixed non-forested wetland		Proposal
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**Habitat Cut:** No      **Site Condition:**

Prescription Water level and vegetation will be managed via the Grass Lake Wildlife Management Area plan, upon the plan's completion and approval.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

4	61019004-Other	47.4	6119 - Mixed Lowland Deciduous Forest	Sapling Medium	40	Unspecified	Other	Other	6229 - Mixed lowland shrub		Proposal
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**Habitat Cut:** No      **Site Condition:** Too Wet

Prescription Water level and vegetation will be managed via the Grass Lake Wildlife Management Area plan, upon the plan's completion and approval.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other This is part of the Grass Lake SWMA.  
Comment:

Proposed Start Date: 10/01/2017

31	61019031-Cut	26.8	4130 - Aspen	Poletimber Well	50	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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**Habitat Cut:** No      **Site Condition:**

Prescription Harvest all hardwood to regenerate and expand aspen. Mark leave trees of mature maple (if available), leave any oak and conifer. Create retention islands at various locations (one being near stand 24 grass opening and stand 68 along the road). Another possibly on north side of stand 24.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen, maple, oak, cherry  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017



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
32	61019032-NF	2.5	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Maintain as needed with mowing, native shrub planting, seeding of native grasses/forbs or Forest Certification approved forage, fertilizing, burning, or  
Specs: removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

42	61019042-Cut	22.3	4130 - Aspen	Poletimber Well	56	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Harvest all hardwoods to regenerate and expand aspen component. Leave all oak and conifers. Mark scattered retention trees of maple. Leave  
Specs: retention islands around bog areas. Include stand 67 in adjacent compartment 60 in this treatment.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable aspen, maple, cherry, oak, pine  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

47	61019047-NF	1.5	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription Maintain as needed with mowing, native shrub planting, seeding of native grasses/forbs or Forest Certification approved forage, fertilizing, burning, or  
Specs: removal of woody encroachment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

5	NF_61019005-NonFor	1.6	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Once adjacent aspen cut has suckered, brush hog encroachment in order to maintain this herbaceous stand's current minimum size. Re-establish  
Specs: herbaceous cover if needed post harvest.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 12/30/1899



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
12	NF_61019012-NonFor	5.2	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary

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

Prescription Potential for recreation use since this is near an unofficial access site for the Betsie River. Hand fell woody encroachment if needed. Leave mast bearing shrubs when possible.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 12/30/1899

16	NF_61019016-NonFor	7.1	2113 - Forage Crops	Nonstocked		Unspecified	NonForestMgt	Other - Specify	31021 - Cool Season Grass		Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Continue planting annual rye or other forage crops.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 12/30/1899

18	NF_61019018-NonFor	3.1	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Mowing	3105 - Mixed Upland Herbaceous		Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Fertilize, mow, and/or seed as needed to maintain this stand to provide low maintenance forage and cover for wildlife.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 12/30/1899

22	NF_61019022-NonFor	4.5	2113 - Forage Crops	Nonstocked		Unspecified	NonForestMgt	Other - Specify	31021 - Cool Season Grass		Draft Field Boundary
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**Habitat Cut: No**                      **Site Condition:**

Prescription Continue planting annual rye or other forage crops.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 12/30/1899



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
24	NF_61019024- NonFor	4.9	2113 - Forage Crops	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	31021 - Cool Season Grass		Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Continue planting annual rye or other forage crops.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

26	NF_61019026- NonFor	6.8	3301 - Low Density Deciduous Trees	Nonstocked		Unspec ified	NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Hand fell some woody encroachment to maintain this stand in an upland shrub habitat type. Retain some mast bearing shrubs and trees for wildlife.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

52	NF_61019052- NonFor	9.7	3303 - Mixed Low Density Trees	Nonstocked		Unspec ified	NonForestMgt	Brush Cutting	3303 - Mixed Low Density Trees		Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription Hand fell some woody encroachment to maintain this stand in an upland shrub habitat type. Retain some mast bearing shrubs and trees for wildlife.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2017

**Total Treatment  
Acreage Proposed: 503.8**

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 19

Year of Entry: 2018

### Availability for Management

Total Acres	Acres Available	Acres Available		Dominant Site Conditions	5B	5C	2G	2H	5E
		With Condition	Not Available						
390	330	<b>59</b>	0	Aspen		<b>59</b>			
32	32	<b>0</b>	0	Bog					
16	16	<b>0</b>	0	Cropland					
16	16	<b>0</b>	0	Herbaceous Openland					
17	17	<b>0</b>	0	Low-Density Trees					
59	41	<b>0</b>	18	Lowland Aspen/Balsam Poplar			18		
86	0	<b>0</b>	86	Lowland Conifers			86		
486	10	<b>0</b>	476	Lowland Deciduous			475		1
24	0	<b>0</b>	24	Lowland Mixed Forest			24		
599	599	<b>0</b>	0	Marsh					
16	9	<b>0</b>	6	Northern Hardwood				6	
24	0	<b>24</b>	0	Oak	<b>24</b>				
1	1	<b>0</b>	0	Red Pine					
1	1	<b>0</b>	0	Treed Bog					
79	79	<b>0</b>	0	Water			0		
25	23	<b>0</b>	2	White Pine				2	
1,869	1,174	<b>83</b>	612	Total Forested Acres	<b>24</b>	<b>59</b>	603	9	1
	63%	<b>4%</b>	33%	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	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	603	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Should be looked at for possible work to be done to site for access to the river. (currently undesignated access and boat launch here).							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 19

Year of Entry: 2018

27	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This stand is a small upland island that is totally surrounded by lowland/wetlands. Would not be accessible to heavy equipment.							
28	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
29	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> very small island stand that is surrounded by a large bog wetland							
30	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	24	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Do not treat...low Ba's of harvestable material, pole and sap understory layer is doing good so leave along for now. Would do more damage to saps and poles than what is worth to cut anything right now.							
31	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	27	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Aspen is very healthy. put off cutting this stand 10 more years to give larger gap in size class with adjacent stand 67 & 6 .							

**Report 4 – Site Conditions**

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 19

Year of Entry: 2018

32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	Unspecified	Unspecified	Unspecified	Unspecified
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**Comments:**

delay this area to harvest at least 10 years and maybe more to continue staggering age classes of aspen in the area. The adjacent stand to the south was cut in 2010 and will cut adjacent area to north in 2 years.

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
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Comments

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**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	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.

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## Traverse City Mgt. Unit

## Report 7 – Forested Stands

Compartment: 19  
Year of Entry: 2018

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6130 - Fir, Aspen, Maple	Sapling Medium	24.0	60	Unspecified	Lots of ferns, moss, etc. Very Wet site
6119 - Mixed Lowland Deciduous Forest	Sapling Medium	47.4	40	Unspecified	Wet, cattails & grasses.
4136 - Aspen, Mixed Conifer	Sapling Well	7.6	5	Unspecified	Stand harvested in Nov.2010. regen of aspenRmaple saps 1' tall on ground.also some oak saps 1' tall.
6115 - Lowland Ash	Sapling Medium	20.7	45	Unspecified	
6113 - Lowland Maple	Sawtimber Well	28.5	92	Unspecified	
6129 - Mixed Coniferous Lowland Forest	Poletimber Well	2.4	98	81-110	Slightly more upland than adjacent stand, but still fragile soil and lowland. open, park-like understory.
42100 - Planted White Pine	Poletimber Well	22.6	46	111-140	
4130 - Aspen	Poletimber Well	27.1	50	Unspecified	
4130 - Aspen	Poletimber Well	4.2	50	Unspecified	Quite a bit of oak saps (1 to 5 feet tall) Also, has some hemlock in the stand.
6127 - Lowland Pine	Sawtimber Well	21.0	90	81-110	Good health and vitality, good multi-layer canopies. Lots of old fire-scar pine stumps. Lots of blue berry. Moist--some water. Good quality WP. Some hemlock seedlings = 1'-2' tall.. Lots of moss & ferns.
6127 - Lowland Pine	Sawtimber Medium	14.9	87	81-110	
6113 - Lowland Maple	Sapling Well	8.4	40	Unspecified	Fern, moss, grass Wet Old wildlife cut??
4130 - Aspen	Poletimber Well	115.4	40	Unspecified	
42200 - Natural White Pine	Poletimber Well	2.1	90	51-80	This is an Island surrounded by bog
4130 - Aspen	Poletimber Well	1.4	40	Unspecified	
6113 - Lowland Maple	Sapling Poor	5.5	60	Unspecified	
4130 - Aspen	Poletimber Well	54.9	50	Unspecified	Contains scattered red & white oak, beech.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	4130 - Aspen	Poletimber Well	3.6	40	Unspecified	
34	6113 - Lowland Maple	Poletimber Well	17.1	85	Unspecified	
35	4112 - Maple, Beech, Cherry Association	Sawtimber Well	9.5	85	51-80	
36	6113 - Lowland Maple	Sawtimber Well	4.0	90	51-80	
37	6113 - Lowland Maple	Poletimber Well	40.9	46	Unspecified	
38	6113 - Lowland Maple	Poletimber Well	21.8	85	Unspecified	Mostly wet with scattered ridges. Offers good winter deer cover and multi-layer canopy structure
39	4130 - Aspen	Poletimber Well	4.5	40	Unspecified	
40	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	49.8	35	Unspecified	Wet- standing water cattails.
41	6113 - Lowland Maple	Poletimber Poor	1.0	50	1-50	This is a small lowland, wet, area that is a retention area from surrounding stand harvest area.
42	4130 - Aspen	Poletimber Well	17.8	56	Unspecified	Also contains occasional red oak (sawlog), Fir (sap/pole), white oak (pole).
43	6113 - Lowland Maple	Poletimber Well	11.2	46	Unspecified	
44	6113 - Lowland Maple	Poletimber Well	36.1	85	Unspecified	Standing water throughout stand. Lots of ground vegetation. Lots of swamp cabbage.
48	4119 - Mixed Northern Hardwoods	Poletimber Medium	6.5	85	81-110	Also has a few W. oak trees.
50	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	17.3	107	111-140	
54	4131 - Aspen, Oak	Poletimber Well	6.6	40	Unspecified	Seedlings= rm, ash, oak (1'-2' tall).  Heavy brachen fern layer.
55	4131 - Aspen, Oak	Poletimber Well	44.6	40	Unspecified	Also contains some scattered fir, cedar, hemlock and occasional large white pine. Heavy brachen fern.
56	4130 - Aspen	Poletimber Well	5.1	45	Unspecified	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Medium	27.3	100	Unspecified	Wet Various wetland plants, many ferns & grasses.
58	6112 - Lowland Aspen	Poletimber Poor	18.2	65	1-50	Skunk cabbage, wetland ferns, dogwood, and other wetland plants. Alder so thick...is very difficult to walk through stand.
59	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	110.5	85	51-80	
60	6113 - Lowland Maple	Sawtimber Medium	12.9	90	81-110	seedlings= 1'-2' tall ash, cherry, oak.
62	4130 - Aspen	Sapling Well	11.8	5	Unspecified	Has small vernal pond in the stand. Site was harvested in fall of 2010 left all oak, conifers and other marked leave trees.
64	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	2.9	94	Unspecified	Data was used from adjacent stand (south) in comp. 32
65	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	15.4	90	81-110	
66	4130 - Aspen	Sapling Well	46.8	5	Unspecified	Contains scattered red & white oak, beech. Harvested in fall of 2010 Aspen regen
67	4130 - Aspen	Sapling Well	18.7	5	Immature	Harvested in fall of 2010 for aspen and mixed deciduous regen.
68	4130 - Aspen	Sapling Well	10.8	5	Unspecified	Contains scattered red & white oak, beech. Was harvested in fall of 2010 for aspen regen
69	4130 - Aspen	Poletimber Well	3.1	50	Unspecified	Contains scattered red & white oak, beech.
70	4126 - White, Black, N. Pin Oak	Poletimber Medium	24.0	90	51-80	
71	42110 - Planted Red Pine	Poletimber Well	1.3	40	81-110	small edge of a pine plantation that is mostly on adjacent private land
72	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	41.5	85	1-50	.
73	6113 - Lowland Maple	Sawtimber Well	3.3	90	81-110	
75	4131 - Aspen, Oak	Poletimber Well	5.8	40	Unspecified	Heavy brachen fern Many springs in the stand Some scattered fir and cedar.

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Traverse City Mgt. Unit

### Report 7 – Forested Stands

Compartment: 19  
Year of Entry: 2018



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
<b>76</b>	6112 - Lowland Aspen	Poletimber Well	40.6	40	Unspecified	Some scattered fir and cedar. Lots of skunk cabbage.
<b>77</b>	6118 - Lowland Deciduous with Cedar	Poletimber Well	9.7	40	Unspecified	.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	6239 - Mixed Emergent Wetland	315.1	No	Grass Lake Swamp, scattered trees, cattails, grasses, seasonally flooded.
2	500 - Water	19.6	No	Betsie River
5	3105 - Mixed Upland Herbaceous	1.6	No	
12	3105 - Mixed Upland Herbaceous	5.2	No	Potential for recreation use (camping, hunting, fishing) since this is near an unofficial access site for the Betsie River.
16	2113 - Forage Crops	7.1	Yes	
18	3105 - Mixed Upland Herbaceous	3.1	No	
19	6225 - Bog	3.0	No	
20	6239 - Mixed Emergent Wetland	27.3	No	Floodplain along Pickerel Creek
22	2113 - Forage Crops	4.6	Yes	
23	6239 - Mixed Emergent Wetland	53.1	No	Floodplain along Pickerel Creek
24	2113 - Forage Crops	4.6	Yes	
25	6225 - Bog	26.3	No	
26	3301 - Low Density Deciduous Trees	6.8	No	
30	6225 - Bog	2.0	No	
32	3105 - Mixed Upland Herbaceous	2.5	No	This opening was used as a timber sale landing to harvest adjacent stand in 2010. This site may be re-used in future for landing for other adjoining stand harvests.
45	3105 - Mixed Upland Herbaceous	2.0	No	Part of a larger opening that is mostly on private property.
46	6239 - Mixed Emergent Wetland	198.2	No	Contains Pickerel Creek and its Headwaters. Also, mixed swamp/marsh surrounding Twin Lakes From previous inventory: has some Dogwood and marsh grass - some scattered cedar and lowland hardwood areas.



Stand	Cover Type	Acres	Managed Site	General Comments:
47	3105 - Mixed Upland Herbaceous	1.5	No	This opening will likely be used for a landing site when the adjacent aspen stand is harvested.
52	3303 - Mixed Low Density Trees	9.7	No	
61	6239 - Mixed Emergent Wetland	4.9	No	
63	6225 - Bog	0.8	No	Wet
74	6224 - Treed Bog	0.9	No	