



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61032

Entry Year 2024

Acreage: 1,526

County Benzie

Management Area: Manistee Plains

Stand Examiner: Craig Allen

Legal Description:

Colfax Township T25N- R13W; Sections 22, 23, 24, 27 in Benzie County.

Identified Planning Goals:

This compartment is within the Manistee Plains management area (MA). Management in the Manistee Plains 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 and low-lying. There is a sandy ridge that runs diagonally through sections 22 and 23. The soils series in the area include Leelanau-Emmet-Kalkaska and Roscommon-Augres-Croswell.

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

This compartment is at the south end of State land that starts 5 miles to the north at Cinder road, in an area that contains the Grass Lake Flooding. Much of it is in lowland and swamp vegetative cover types and is an important wildlife area. Private lands consist of low density residential areas and farms. Due to poor access, any properties that border Karlin road and State lands would be desirable acquisitions.

Unique Natural Features:

The upper headwaters of the Little Betsie River flows through the center of this compartment.

Archeological, Historical, and Cultural Features:

No known features within this compartment. However, the Betsie River and its tributaries were used by early Native Americans for hunting and settlements.

Special Management Designations or Considerations:

A portion of this compartment is within the Grouse Enhanced Management Systems (GEMS) as further described in the Wildlife Habitat Consideration section.

The Betsie River (and all its tributaries) is a designated Michigan Natural River system.

Watershed and Fisheries Considerations:

The Little Betsie River flows through this compartment and is a designated Trout Stream. This river is a tributary to the Betsie River so it is included as a part of the Betsie River Natural River Plan. The Little Betsie River is a high quality, cold water trout stream with naturally reproducing populations of brown trout, brook trout, rainbow trout, coho salmon, and chinook salmon.

Wildlife Habitat Considerations:

Most of state ownership in compartment 32 is flat and consists of poorly drained organic soils. Access to this compartment is limited due to a high water-table, flooded roads, and wetlands/rivers. The resulting "walk-in" experience is relatively unique for this part of the State Forest system and great care should be taken to preserve this characteristic.

The Little Betsie River originates in this compartment. This riparian corridor consists of a mosaic of lowland hardwoods of varying age classes with small inclusions of lowland shrubs and lowland aspen. Allowing the forests along this riparian corridor to naturally mature would benefit species such as wood frogs, red-shouldered hawks, great blue herons, wintering deer, raccoons, and black bears. There are opportunities outside the Natural Vegetation Buffer to mimic small blowdown events with scattered habitat cuts.

Outside the riparian corridor the land remains at or near the water table. Much of the same cover types are found here, lowland hardwoods and aspen, leather leaf bogs, as well as several spruce cover plantings. There are several openings situated on low ridges that need some maintenance to set back encroachment. Red fox, garter snakes, northern flickers,

bear, and deer make use of these small grassy openings interspersed through the lowlands. Some of the aspen in this compartment is becoming merchantable and harvests should be pursued to diversify the age class of this resource. Care should be taken to minimize any potential issue with seasonably wet soils. Harvest operations should be utilized to create some (approximately 1-2 trees per acre) coarse woody debris (CWD), preferably via timber sale specs. CWD trees should be log sized or bigger, the more decay resistant the tree species is the better and cut approximately at breast height (4.5 feet). The log should be left within 3 feet its stump. Retaining conifers and snags is important for cover, vertical structure, and future coarse woody debris. Sales here should preferably leave tops unchipped.

Compartment 32 west of the Little Betsie River is part the Little Betsie River Grouse Enhanced Management Site (GEMS). GEMS are designated areas that are intensively managed for upland gamebirds like grouse and woodcock, predominately walk-in access, and located across the northern Lower and Upper Peninsulas. The areas are called GEMS - Grouse Enhanced Management System, and are managed for young forests, primarily aspen. Primary management is for aspen with a shortened rotation age (40 years versus 60 years). Most old logging roads are gated and maintained to provide well

Mineral Resource and Development Concerns and/or Restrictions

The nearest active sand/gravel pit is over two miles southwest of the compartment. There is good potential for sand and gravel within the compartment, but most of the area is low-lying wetlands, and potential for development of a gravel pit seems low. Much of the west half of the compartment is currently leased for Antrim Shale gas production. The leases are being held by producing wells located elsewhere; there is no active production occurring from beneath the compartment. Parcels in Sec 24 are currently leased for Silurian reef exploration and development. There could be potential for additional reef discoveries within the compartment as well as future gas storage potential. There is no known metallic mineral potential in this part of the state. (Peter Rose, DNR Geologist, 2/14/22).

Vehicle Access:

This compartment currently has no vehicular access due to high water tables and old access roads that were bermed/gated off and closed to any vehicle use many years ago due to heavy soil/rut damage from 4-wheel drive vehicles. Future limited access will be needed for Forestry and Wildlife management purposes, but likely road work and culverts will be needed.

Survey Needs:

There are currently no known survey needs in this compartment.

Recreational Facilities and Opportunities:

Walk-in recreational opportunities in this compartment include hunting, hiking, trapping, fishing, dispersed camping, mushroom hunting, and bird watching.

Fire Protection:

This area has wildfire protection through coordinated efforts of DNR and local Fire Departments.

Additional Compartment Information:

The following reports from the Inventory are attached:

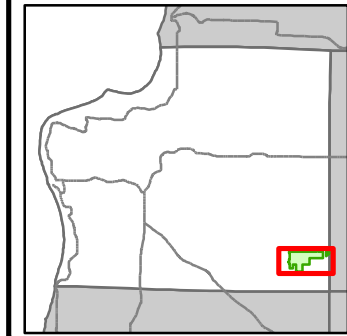
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

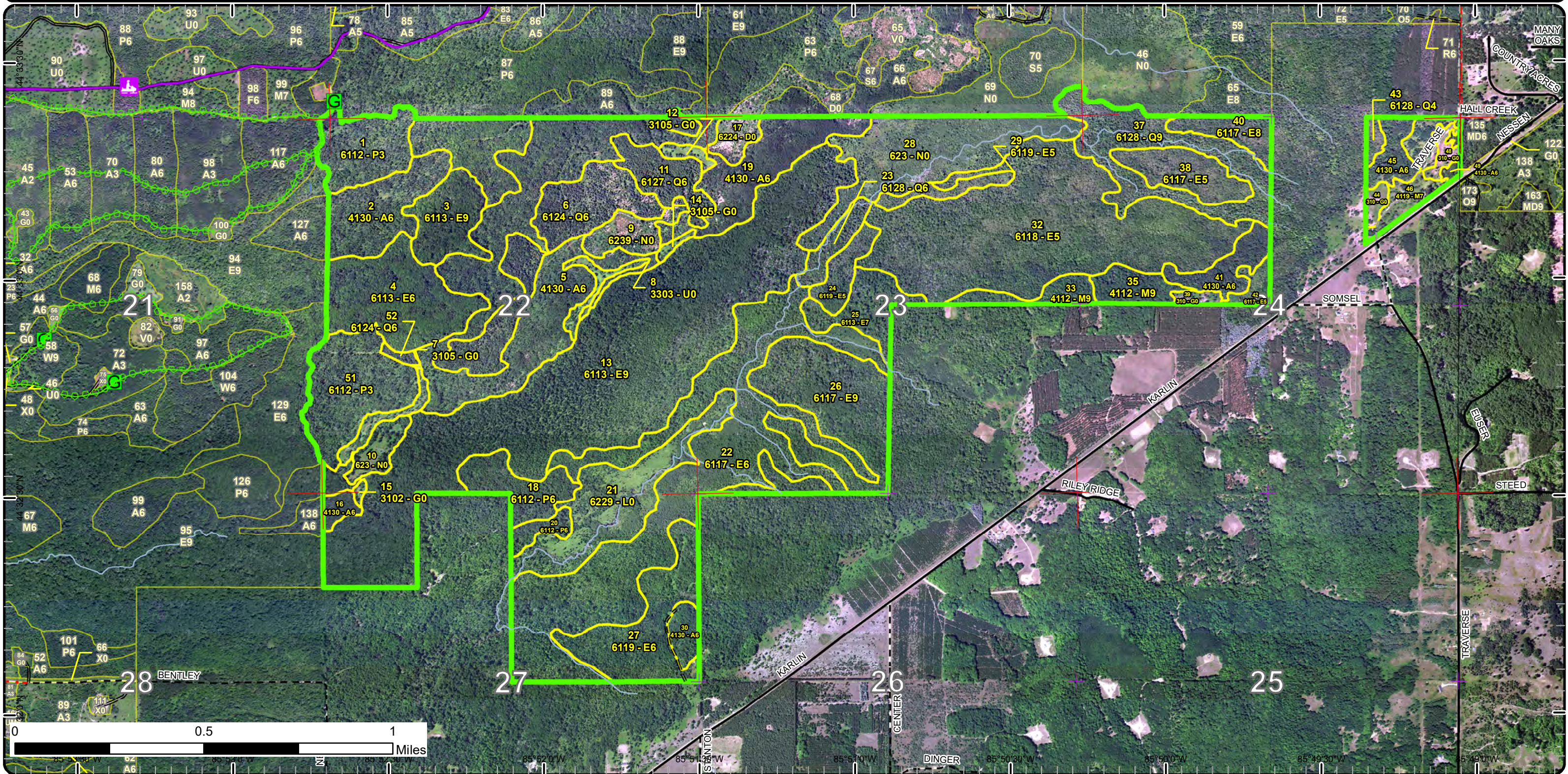
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Stand Boundary Map

Compartment: 32
 T25N-R13W Sec. 22-24, 27
 County: Benzie
 Unit: Traverse City
 Mgmt Area: Manistee Plains
 YOE: 2024
 Acres: 1525.5 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 10/26/2022
 Map Phase: Post Review

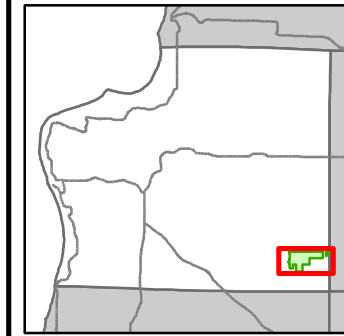


- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Hunter Walking Trails
- Designated Snowmobile Trails
- Gate
- Culvert
- Intermittent Stream
- Perennial River
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland

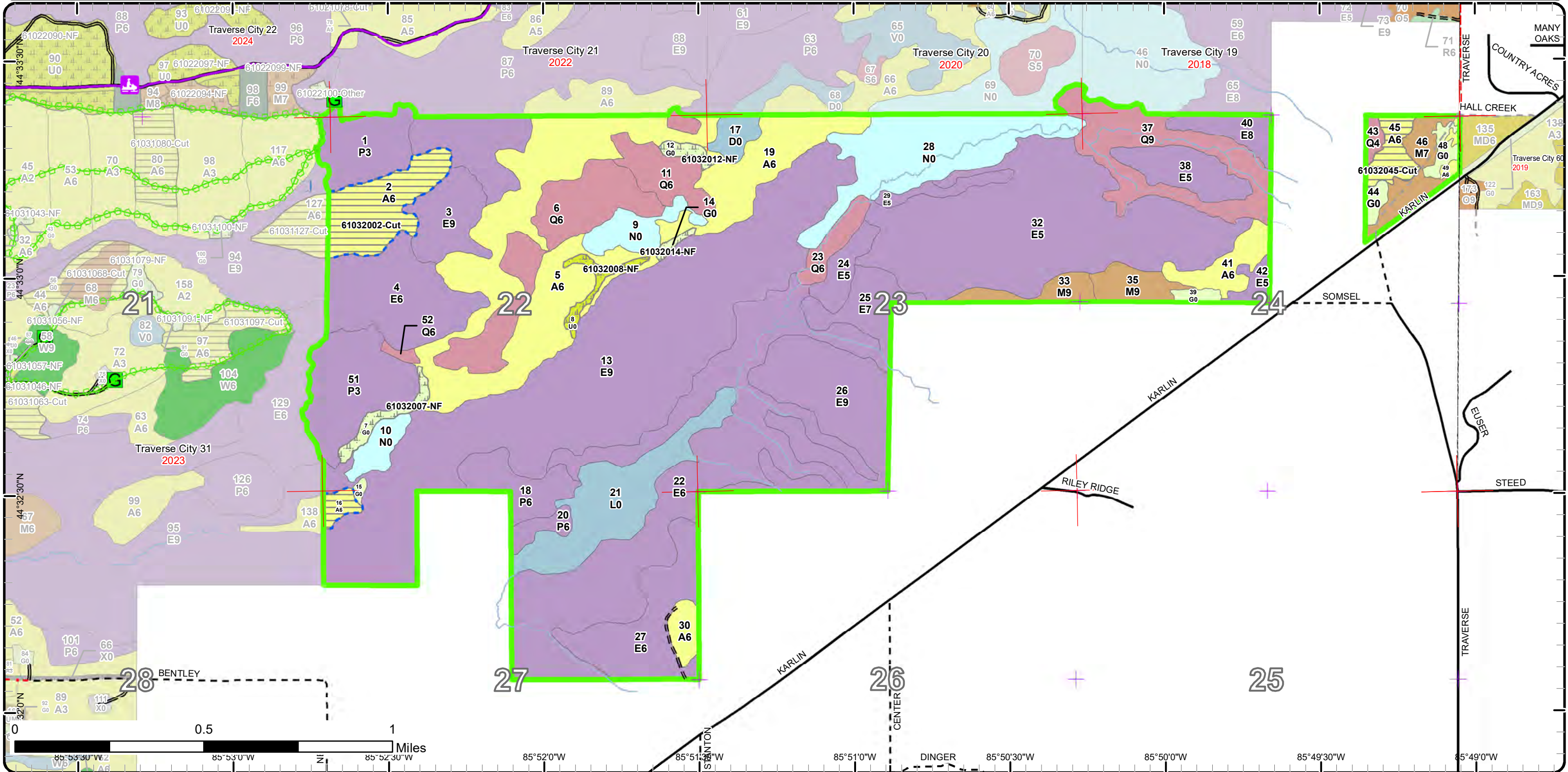


Cover Type & Treatments Map

Compartment: 32
 T25N-R13W Sec. 22-24, 27
 County: Benzie
 Unit: Traverse City
 Mgmt Area: Manistee Plains
 YOE: 2024
 Acres: 1525.5 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 10/26/2022
 Map Phase: Post Review

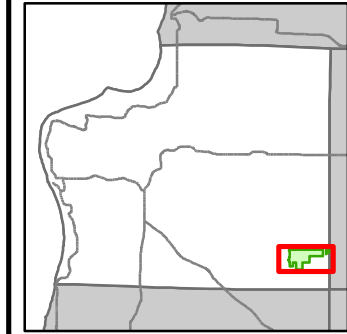


- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Hunter Walking Trails
- Designated Snowmobile Trails
- G Gate
- Culvert
- Intermittent Stream
- Perennial River
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland

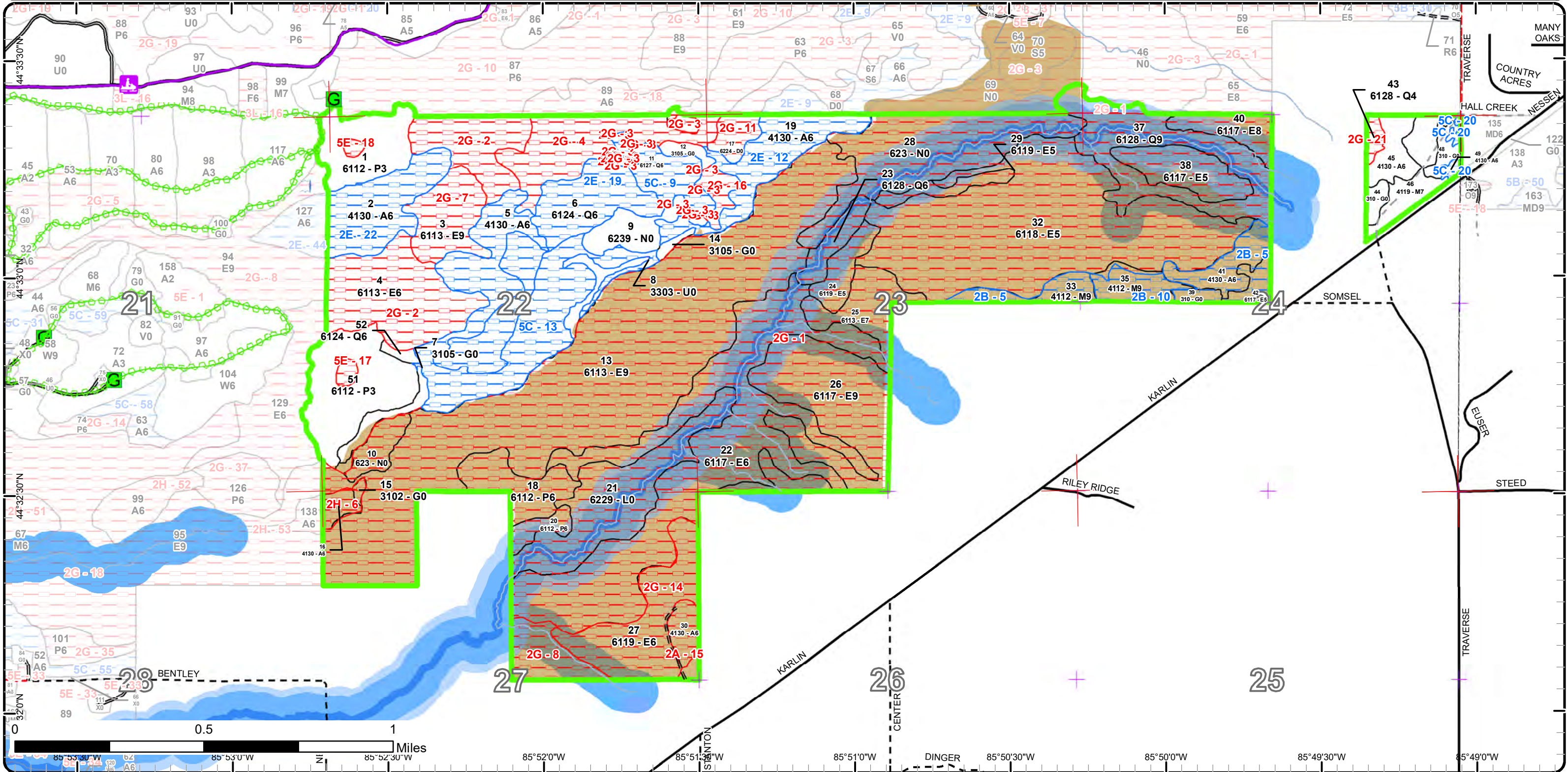


Special Conservation Areas

Compartment: 32
 T25N-R13W Sec. 22-24, 27
 County: Benzie
 Unit: Traverse City
 Mgmt Area: Manistee Plains
 YOE: 2024
 Acres: 1525.5 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 10/26/2022
 Map Phase: Post Review



- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
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- Federal / State / County - Paved Road
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- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Hunter Walking Trails
- Designated Snowmobile Trails
- G Gate
- Culvert
- Intermittent Stream
- Perennial River
- Compartment Boundary
- Available w/ Constraints
- 2E: Road needed
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable
- 2A: Adjacent landowner denied access
- 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
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Forest Habitat Core Interior
- Cold Water Streams
- High Priority Trout Stream Buffer



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+	Unnever-Aged	Total
Aspen	0	0	0	0	0	194	32	0	0	0	0	0	0	0	0	0	0	0	226
Herbaceous Openland	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Aspen/Balsam Poplar	0	70	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	96
Lowland Conifers	0	0	0	0	0	52	21	0	0	0	3	58	0	0	0	0	0	0	133
Lowland Deciduous	0	0	0	0	43	95	0	0	0	0	354	371	0	0	0	0	0	0	863
Lowland Shrub	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Marsh	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
Northern Hardwood	0	0	0	0	0	0	0	0	0	15	0	22	0	0	0	0	0	0	37
Treed Bog	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	170	70	0	0	43	367	53	0	0	15	357	451	0	0	0	0	0	0	1525



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2024

Acres of Harvest

Compartment 32
Total Compartment Acres: 1,526

Commercial Harvest - 10
Harvests with Site Condition - 33
Next Step Harvest - 0
Habitat Cut - 4

Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen		48	0	0	0	0	0	0	0	0	48
	Total	48	0	0	0	0	0	0	0	0	48

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		48	0	0	0	0	0	0	16	0	64
Next Step		0	0	0	0	0	48	0	0	0	48
	Total	48	0	0	0	0	48	0	16	0	112



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	Habitat Cut
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Proposed Treatments:

2	61032002-Cut	32.7	4130 - Aspen	Poletimber Well	45	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Harvest all hardwoods with goal to regenerate and expand aspen component. Leave any conifers and oak that may be present in stand for diversity. Possibly, mark some retention islands/areas in locations where water table is higher. Add wildlife drumming log spec to sale.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Aspen, maple, cherry</p> <p><u>Other Comment:</u> Harvest with adjacent stand 127 in compartment 31...these stands are all the same and manage as such. May need some road work to add gravel and possibly culvert(s) to build-up road for access.</p> <p><u>Site Condition</u> Road Needed</p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											
7	61032007-NF	6.1	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> 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. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Could also work around some of the existing beneficial vegetation to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											
8	61032008-NF	5.3	3303 - Mixed Low Density Trees	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> 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. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Could also work around some of the existing beneficial vegetation to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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12	61032012-NF	3.2	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub	No
<p><u>Prescription</u> 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. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Could also work around some of the existing beneficial vegetation to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										

14	61032014-NF	1.7	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub	No
<p><u>Prescription</u> 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. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Could also work around some of the existing beneficial vegetation to create a wildlife food plot of appropriate herbaceous species suited to site and soil conditions, with fertilization. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										

16	61032016-Cut	4.5	4130 - Aspen	Poletimber Well	45	Unspec ified	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged Yes
<p><u>Prescription</u> Habitat cut for to regenerate aspen. Leave retention of scattered and/or clumped mast producing trees, conifers, or red maple.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> mix of aspen, mixed deciduous, with scattered conifers. <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u> Blocked by Obstacle</p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
45 61032045-Cut	10.5	4130 - Aspen	Poletimber Well	56	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Harvest all aspen (and red maple as needed) to open-up areas currently containing higher concentrations of aspen to allow for aspen regeneration. Other areas of the stand may contain more oak in understory so mark harvest boundary around these areas so the oak is not harvested or damaged at this time. Leave all conifers and cut oak only as needed to open the areas for aspen. Add wildlife drumming log spec to sale.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> aspen, maple, cherry, oak</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										

Total Treatment Acreage Proposed: 64

Report 4 – Site Conditions

Traverse City Mgt. Unit
 Craig Allen : Examiner

Compartment: 32
 Year of Entry: 2024

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available
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Dominant Site Conditions

	Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions						
					2B	2E	5C	2A	2G	2H	5E
226	11	159	57	Aspen	14	64	80	7	45	4	
23	19	3	1	Herbaceous Openland	3		0		0	1	
5	5	0	0	Low-Density Trees					0		
97	67	0	30	Lowland Aspen/Balsam Poplar					26		3
134	5	69	61	Lowland Conifers		50	18		61		
863	3	6	854	Lowland Deciduous	6				854	0	
49	0	0	49	Lowland Shrub					49		
84	14	0	70	Marsh			0		70		
38	15	21	1	Northern Hardwood	21				1		
8	0	0	8	Treed Bog					8		
1,526	138	256	1,131	Total Forested Acres	43	115	99	7	1,115	6	3
	9%	17%	74%	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)	896	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	77	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 32

Year of Entry: 2024

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	38	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	2B: Unknown if access through adjacent landowner(s) is possible	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 32

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8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments:							
9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments: remote and wet access create reason to hold off on treatment until adjacent stands are treated. Not financially feasible to thin this stand until some adjacent stands are also harvested.							
10	Available	2B: Unknown if access through adjacent landowner(s) is possible	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	2E: Road needed	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	78	2E: Road needed	Unspecified	Unspecified	Unspecified
Comments:							

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14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	41	2A: Adjacent landowner denied access	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	2A: Adjacent landowner denied access	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention island							
18	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: retention island							
19	Available	2E: Road needed	50	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Available	2E: Road needed	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments: some road work needed for access road to(fill, gravel and culvert(s)) in order to have timber sale in this stand and adjacent							

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



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 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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
1	6112 - Lowland Aspen	Sapling Well	27.4	4	Immature	N/A	Harvested in october of 2017. Also, contains a few scattered Bur Oak various sizes and scattered bur oak saplings.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		94	Sapling	1	4	American Elm	Medium	Variable	Sapling
Red Maple		6	Sapling	1	4				
2	4130 - Aspen	Poletimber Well	32.7	45	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		3	Pole/Log	8	45	Black Cherry	Medium	Variable	Sapling
Quaking Aspen		82	Pole/Log	8	45	Quaking Aspen	Medium	Variable	Sapling
Black Cherry		15	Pole/Log	8	45				
3	6113 - Lowland Maple	Sawtimber Well	23.5	105	51-80	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		100	Log/Pole/XLog	18	105	Red Maple	Low	Variable	Sapling
						Black Ash	Low	5 - 10 feet	Sapling
4	6113 - Lowland Maple	Poletimber Well	77.4	45	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		25	Pole/Log/Sap	7	45	Red Maple	Full	Variable	Sapling
Red Maple		75	Pole/Log/Sap	7	45	Black Ash	Medium	Variable	Sapling
5	4130 - Aspen	Poletimber Well	116.7	45	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Log/Pole	10	45	American Elm	Low	Variable	Sapling
Quaking Aspen		55	Pole/Log	8	45	Red Maple	Low	Variable	Sapling
Bigtooth Aspen		35	Pole/Log	8	45	Black Cherry	Low	Variable	Sapling
						Black Ash	High	5 - 10 feet	Sapling
6	6124 - Lowland Spruce-Fir	Poletimber Well	50.4	45	81-110	N/A	Originally, planted for wildlife winter cover.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		10	Pole	6		Deciduous Shrubs	Medium	< 5 feet	Tall Shrub
White Spruce		90	Pole/Log	9	45	Black Cherry	Medium	Variable	Sapling
						White Spruce	Low	Variable	Sapling
7	3105 - Mixed Upland Herbaceous	Nonstocked	6.1		Unspecified	No	CA-Has had past cultivation work for wildlife habitat. 5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s.		
8	3303 - Mixed Low Density Trees	Nonstocked	5.3		Unspecified	No	5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s.		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																												
9	6239 - Mixed Emergent Wetland	Nonstocked	14.0		Unspecified	No																													
10	623 - Emergent Wetland	Nonstocked	9.1		Unspecified	No																													
11	6127 - Lowland Pine	Poletimber Well	20.5	57	111-140	N/A																													
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12	3105 - Mixed Upland Herbaceous	Nonstocked	3.2		Unspecified	No	5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s.																												
13	6113 - Lowland Maple	Sawtimber Well	259.1	105	51-80	N/A																													
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14	3105 - Mixed Upland Herbaceous	Nonstocked	1.7		Unspecified	No	5/21/12 SG-This one in a series of five narrow man-made wildlife openings constructed in the 1970s.																												
15	3102 - Grass	Nonstocked	1.0		Unspecified	No																													
16	4130 - Aspen	Poletimber Well	4.5	45	Unspecified	N/A	Talk with Craig about possibility of a habitat cut for this stand.																												
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17	6224 - Treed Bog	Nonstocked	7.5		Unspecified	No																													
18	6112 - Lowland Aspen	Poletimber Well	20.2	45	Unspecified	N/A																													
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Red Maple	50	Pole	7	45																															



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
19	4130 - Aspen	Poletimber Well	38.1	46	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Black Cherry		25	Pole	7	46	Black Cherry	
Quaking Aspen		35	Pole	7	46	High	
Red Maple		5	Pole	7	46	Variable	
Bigtooth Aspen		35	Pole	7	46	Sapling	
20	6112 - Lowland Aspen	Poletimber Well	6.2	45	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Quaking Aspen		90	Pole	6	45		
Red Maple		10	Pole	6	45		
21	6229 - Mixed lowland shrub	Nonstocked	49.5		Unspecified	No	contains the little Betsie River.
22	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	159.1	90	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		45	Log/Pole	11	90		
American Elm		10	Pole	7			
Hemlock		25	Log/Pole	10	90		
Quaking Aspen		5	Pole	8			
Northern White Cedar		5	Log/Pole	10			
Yellow Birch		10	Pole	7			
23	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	9.6	100	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Yellow Birch		15	Pole/Log	9			
Hemlock		35	Pole/Log	9	100		
Northern White Cedar		35	Pole/Log	9	100		
Red Maple		15	Pole/Log	9			
24	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	11.0	48	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
American Elm		20	Pole	6	48		
Yellow Birch		15	Pole	6	48		
Red Maple		45	Pole	6	48		
Quaking Aspen		20	Pole	6	48		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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25 6113 - Lowland Maple Sawtimber Poor 19.7 90 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	70	Log/Pole	11	90	American Elm	Medium	Variable	Pole
Quaking Aspen	30	Pole/Log	9		Black Ash	Medium	Variable	Sapling
					Paper Birch	Medium	Variable	Pole
					Alder	Full	10 - 20 feet	Tall Shrub
					Black Ash	High	Variable	Pole

26 6117 - Lowland Deciduous, Mixed Coniferous Sawtimber Well 67.3 100 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Yellow Birch	15	Pole	8		Black Ash	Medium	Variable	Sapling
Quaking Aspen	25	Pole	8					
Basswood	10	Log/Pole	12					
Hemlock	15	Log/Pole	11					
Red Maple	30	Log/Pole	12	100				
Northern White Cedar	5	Log/Pole	10					

27 6119 - Mixed Lowland Deciduous Forest Poletimber Well 42.9 38 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	45	Pole	7	38
Paper Birch	5	Pole	7	
Quaking Aspen	15	Pole	7	
Northern White Cedar	10	Pole	7	
Hemlock	5	Pole	7	
Yellow Birch	5	Pole	7	
Basswood	15	Pole	7	

28 623 - Emergent Wetland Nonstocked 60.7 Unspecified No

29 6119 - Mixed Lowland Deciduous Forest Poletimber Medium 7.1 48 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	40	Pole	6	48	Black Ash	Low	< 5 feet	Sapling
Yellow Birch	15	Pole	6	48				
American Elm	25	Pole	6	48				
Quaking Aspen	20	Pole	6	48				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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30 4130 - Aspen Poletimber Well 7.2 55 Unspecified N/A

Might make a nice location for a habitat cut. It looks like the landowner to the south has an established two track access to this part of the compartment

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole/Log	9	55
White Pine	15	Pole/Log	9	55
Quaking Aspen	75	Pole	9	55

32 6118 - Lowland Deciduous with Cedar Poletimber Medium 157.3 90 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age
American Elm	35	Pole	6	90
Red Maple	8	Pole	6	
Yellow Birch	22	Pole	6	
Northern White Cedar	20	Log/Pole	10	90
Hemlock	15	Log/Pole	10	

Sub-Canopy Species	Density	Avg. Height	Size
Black Ash	High	Variable	Sapling
Musclewood/Hornbeam	Low	Variable	Sapling
American Elm	Medium	Variable	Sapling

33 4112 - Maple, Beech, Cherry Association Sawtimber Well 10.3 105 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Basswood	10	Log/Pole	13	
Sugar Maple	45	Log/Pole	13	105
Yellow Birch	5	Log/Pole	11	
Red Maple	40	Log/Pole	13	105

Sub-Canopy Species	Density	Avg. Height	Size
White Ash	High	Variable	Sapling

35 4112 - Maple, Beech, Cherry Association Sawtimber Well 11.8 105 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	60	Log/Pole	14	105
Red Maple	34	Log/Pole	14	
Beech	3	Log/Pole	14	
Black Cherry	3	Log/Pole	14	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	Variable	Pole
Ironwood	High	Variable	Sapling
Beech	Medium	Variable	Sapling
Sugar Maple	Low	Variable	Pole

37 6128 - Lowland Coniferous, Mixed Deciduous Sawtimber Well 48.6 100 51-80 N/A

contain some headwater creeks that flow into Little Betsie

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	35	Log/Pole	11	100
Basswood	5	Log/Pole	11	
Hemlock	35	Log/Pole	11	100
Yellow Birch	5	Pole	7	
Red Maple	20	Pole	7	

Sub-Canopy Species	Density	Avg. Height	Size
Black Ash	High	Variable	Sapling
American Elm	Low	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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38 6117 - Lowland Deciduous, Mixed Coniferous Poletimber Medium 20.6 100 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	5	Pole	9		American Elm	Medium	Variable	Sapling
Hemlock	15	Pole	9		Black Ash	High	Variable	Sapling
American Elm	45	Pole	6	100				
Red Maple	15	Log/Pole	10					
Basswood	5	Log/Pole	10					
Yellow Birch	15	Pole	6					

39 310 - Herbaceous Openland Nonstocked 2.9 Unspecified No

40 6117 - Lowland Deciduous, Mixed Coniferous Sawtimber Medium 12.0 90 1-50 N/A scattered skunk cabbage at ground level

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	30	Log/Pole	10	90	Black Ash	High	Variable	Sapling
Basswood	10	Log/Pole	12		Black Ash	Full	Variable	Pole
Northern White Cedar	15	Pole/Log	8	90				
Hemlock	15	Pole/Log	8					
Yellow Birch	30	Log/Pole	10	90				

41 4130 - Aspen Poletimber Well 14.3 50 Unspecified N/A Mostly dry when inventoried, but has potential to be seasonably flooded...high water table.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
American Elm	15	Pole	6	50	Black Ash	High	Variable	Sapling
Quaking Aspen	85	Pole/Log	8	50				

42 6117 - Lowland Deciduous, Mixed Coniferous Poletimber Medium 5.6 90 Unspecified N/A Autumn olive

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Hemlock	15	Pole	9		Deciduous Shrubs	Medium	< 5 feet	Tall Shrub
American Elm	45	Pole	5	90	Black Ash	Medium	Variable	Sapling
Northern White Cedar	10	Pole	9					
Red Maple	10	Pole	6					
Quaking Aspen	20	Pole	7					

43 6128 - Lowland Coniferous, Mixed Deciduous Poletimber Poor 3.1 90 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Yellow Birch	20	Pole	5		Black Ash	Medium	Variable	Sapling
Hemlock	80	Pole/Log	8	90				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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44 310 - Herbaceous Openland Nonstocked 3.3 Unspecified No

45 4130 - Aspen Poletimber Well 10.5 56 Unspecified N/A Also contains a few large white oak and sugar maple, a couple hemlock

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	75	Pole/Log	9	56	White Oak	Medium	Variable	Sapling
Red Oak	3	Log/Pole	14		White Oak	Medium	Variable	Pole
Red Maple	22	Log/Pole	14					

46 4119 - Mixed Northern Hardwoods Sawtimber Poor 15.4 85 1-50 N/A Lots of natural white oak regen

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	20	Log/Pole	12		White Oak	Medium	Variable	Pole
White Oak	20	Log/Pole	16		White Oak	High	Variable	Sapling
Black Cherry	60	Pole/Log	9	85	Red Oak	Low	Variable	Pole
					Red Oak	Low	Variable	Sapling

48 310 - Herbaceous Openland Nonstocked 4.4 Unspecified No

49 4130 - Aspen Poletimber Well 2.2 49 Unspecified N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	89	Pole	8	49	White Oak	Low	Variable	Sapling
Red Maple	5	Log/Pole	12		Bigtooth Aspen	Low	Variable	Sapling
Red Oak	3	Log/Pole	12		Red Oak	Low	Variable	Sapling
White Oak	3	Log/Pole	14					

51 6112 - Lowland Aspen Sapling Well 42.9 4 Immature N/A Harvested in winter of 2017-18. (Ground did not freeze up that winter). Retention island within.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	55	Sapling	1	4	Black Cherry	Low	Variable	Sapling
Red Maple	10	Sapling	1	4	American Elm	Low	Variable	Sapling
Bigtooth Aspen	35	Sapling	1	4				

52 6124 - Lowland Spruce-Fir Poletimber Well 1.7 45 81-110 N/A Planted for wildlife winter cover

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	90	Pole	8	45	Deciduous Shrubs	Medium	< 5 feet	Tall Shrub
Quaking Aspen	10	Pole	4		Black Cherry	Medium	Variable	Sapling
					White Spruce	Low	Variable	Sapling