

# **Compartment Review Presentation**

**Traverse City Forest Management Unit** 

Compartment 61157
Entry Year 2020
Acreage: 2,682
County Kalkaska

Management Area: Boardman Plains

Revision Date: 2018-06-13

Stand Examiner: Paul Roell

**Legal Description:** 

T26N R7W, Section 6

T26N R8W. Sections 1, 2 and 3

T27N R7W, Section 31

T27N R8W, Sections 34, 35 and 36

### **Identified Planning Goals:**

This compartment is part of the Boardman Plains management area (MA). Management will provide timber products; maintain or enhance wildlife habitat; and provide for forest-based recreational uses. Timber management objectives for this 10-year planning period include improving the age-class structure of aspen; increasing regeneration of oak; working toward balancing the red pine age-class structure; continuing emphasis on managing the northern hardwood resource for stand quality, age, and species diversity; wildlife values; and continued production of wood products. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunity. Expected trends within this 10-year planning period are: increased recreational pressure, especially on the Muncie Lakes pathway, North Country and other established trails; increased oil and gas development; an increased wildland/urban interface; a need to restore oak/pine barrens communities; invasive plant control; and the conversion of poor oaks sites to mixed pine/oak sites.

## Soil and topography:

Grayling Sand on the uplands and as the elevation begins to drop towards the river the soil shifts to Rubicon and Saugatuck sands. The flood plain of the North Branch of Boardman River and its tributaries contain a rifle peat and Griffin Sandy Loam.

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

West of this compartment the ownership is a large area of state ownership with private parcels mixed in. To the east there is private property with smaller areas of state mixed in. There is a 80 acre parcel in Section 34 of this compartment. There are records of some more recent tax reverted parcels adjacent to this compartment that will need further review and may be nominated for disposal.

### **Unique Natural Features:**

The North Branch Boardman River & the tributary, Crofton Creek, are part of the Natural Rivers system. There is also potential habitat for the little brown bat.

#### Archeological, Historical, and Cultural Features:

None listed on the Archeological Features list. There is an old homestead site near Loon Lake.

## **Special Management Designations or Considerations:**

North Branch Boardman River, Crofton Creek & Loon Lake.

#### **Watershed and Fisheries Considerations:**

## Wildlife Habitat Considerations:

Compartment 157 is in the Boardman Plains Management Area (MA) of the Regional State Forest Management Plan. Featured wildlife species and their habitat niches for this MA include bear, pileated woodpecker, ruffed grouse, turkey, and deer. The glacial geology underlying this area consists mostly of excessively drained sandy outwash plain. The eastern end of the compartment is underlain by pitted outwash plain with scattered kettle depressions supporting a variety of wetland habitats. A short section of the North Branch Boardman River, as well as Crofton Creek run through the compartment and both are important riparian corridors in the mostly dry sandy habitats. The area that these streams drain supports a mix of wetland communities that are important for species like whitetail deer, bear, woodcock, Northern saw-

whet owl, Swainson's thrush, and brown snake.

The sandy soil found outside the riparian corridors was often the setting for large wildfires. These fires sustained a variety of fire driven communities, mainly conifer forests at the time of the GLO surveys. Dominant cover types here include aspen of various ages interspersed with grassy openings, upland brush stands, natural and planted pine, and several oak communities.

Aspen harvests should be designed to mimic wildfires of various intensities. This creates a mosaic of age classes and increases structural diversity within the area. Timber operations should be utilized to create some (approximately 1-2 trees per acre) coarse woody debris (CWD), preferably via 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. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. Wildlife considerations regarding oak types include retaining mature mast-producing trees, protection of den/nest trees, retaining oak as a component of the future stand, and maintaining the diversity of tree species within the stand. Hardwood treatments should retain a component of mature mast producing trees and protect/create snags, den, cavity, and downed trees. Future management of the several pine stands here should consider incorporating small (2-5 acre) islands that are left relatively un-thinned within mature stands to provide winter roosting cover for turkeys. Deciduous species should be encouraged within conifer plantations for diversity.

Several openings are abandoned oil wells pads and have been prescribed for planting. Prescribed fire, chainsaw work, and tractor work are also proposed for maintaining a mosaic of non-forested communities. Based on the natural disturbance history of the land type associations within the Boardman Plains MA, the MA plan calls for managing the amount of open/semi-open lands at or above the current level to provide habitat for species which use openings. Some species found in these early to mid-successional communities include: white-tailed deer, ruffed grouse, eastern bluebird, smooth green snake, long-tailed weasel, and red-tailed hawk.

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

Sand/gravel pits are not located in the area, but there appears to be some sand & gravel potential within the compartment. The compartment is within the prolific Niagaran reef trend. There has been some past production in the northern portion of the compartment, and there may be additional Niagaran reef oil & gas potential within the compartment. CMS Gas Transmission currently holds active leases within the northern portion of the compartment with plans of developing a new gas storage field in the Niagaran. There is no known metallic mineral potential in this part of the state.

#### **Vehicle Access:**

There is adequate access throughout this compartment.

## **Survey Needs:**

None at this time.

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

The proximity to local communities and water resources attracts hunters, fisherman, dispersed campers, and trappers to the compartment. North Branch Boardman River and the tributary, Crofton Creek, are part of the Natural Rivers system. Loon Lake has an improvised boardwalk for better water access.

#### **Fire Protection:**

This area is within a Zone 6 for DNR wildland fire response

## **Additional Compartment Information:**

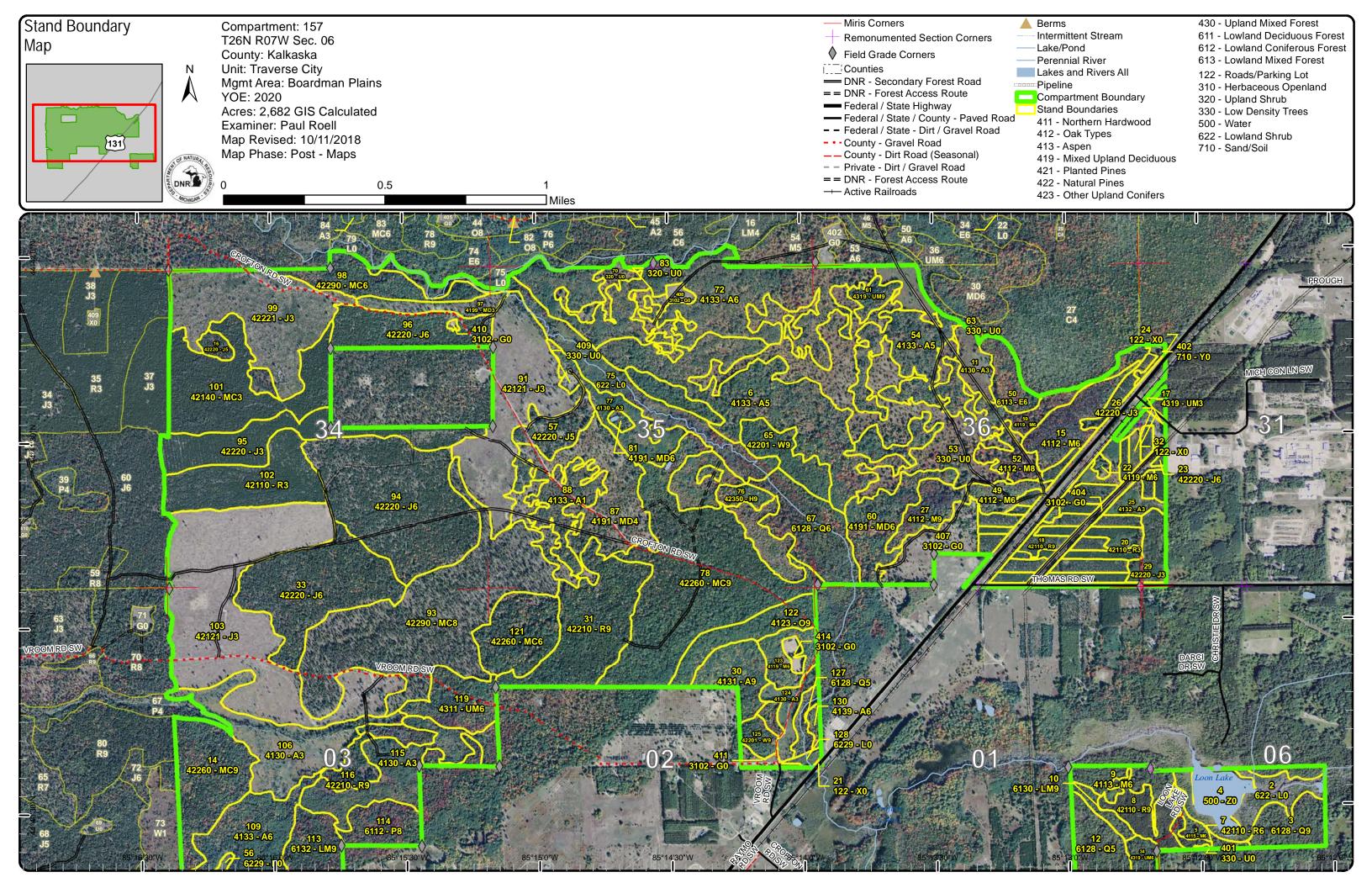
The following reports from the Inventory are attached:

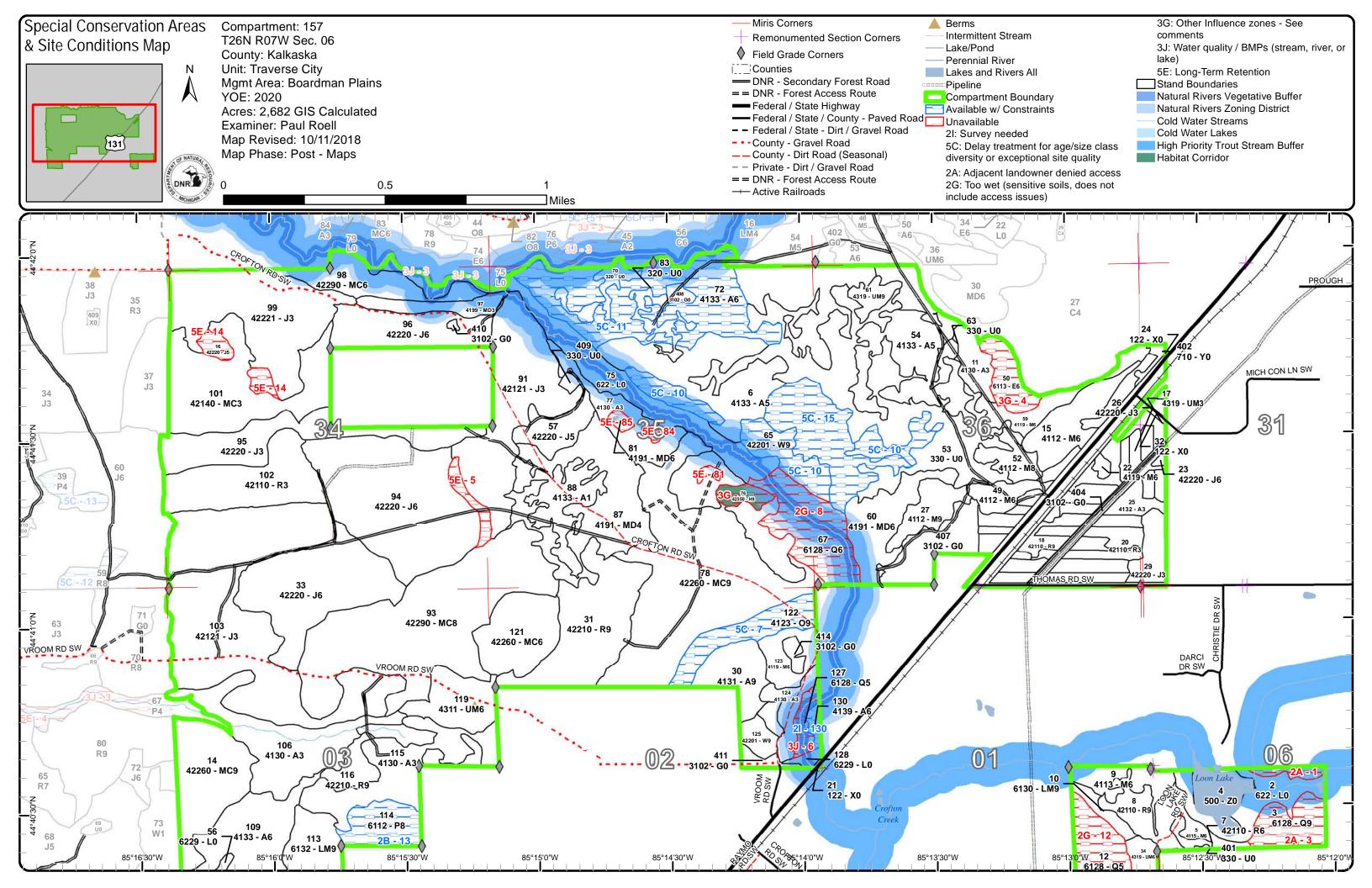
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

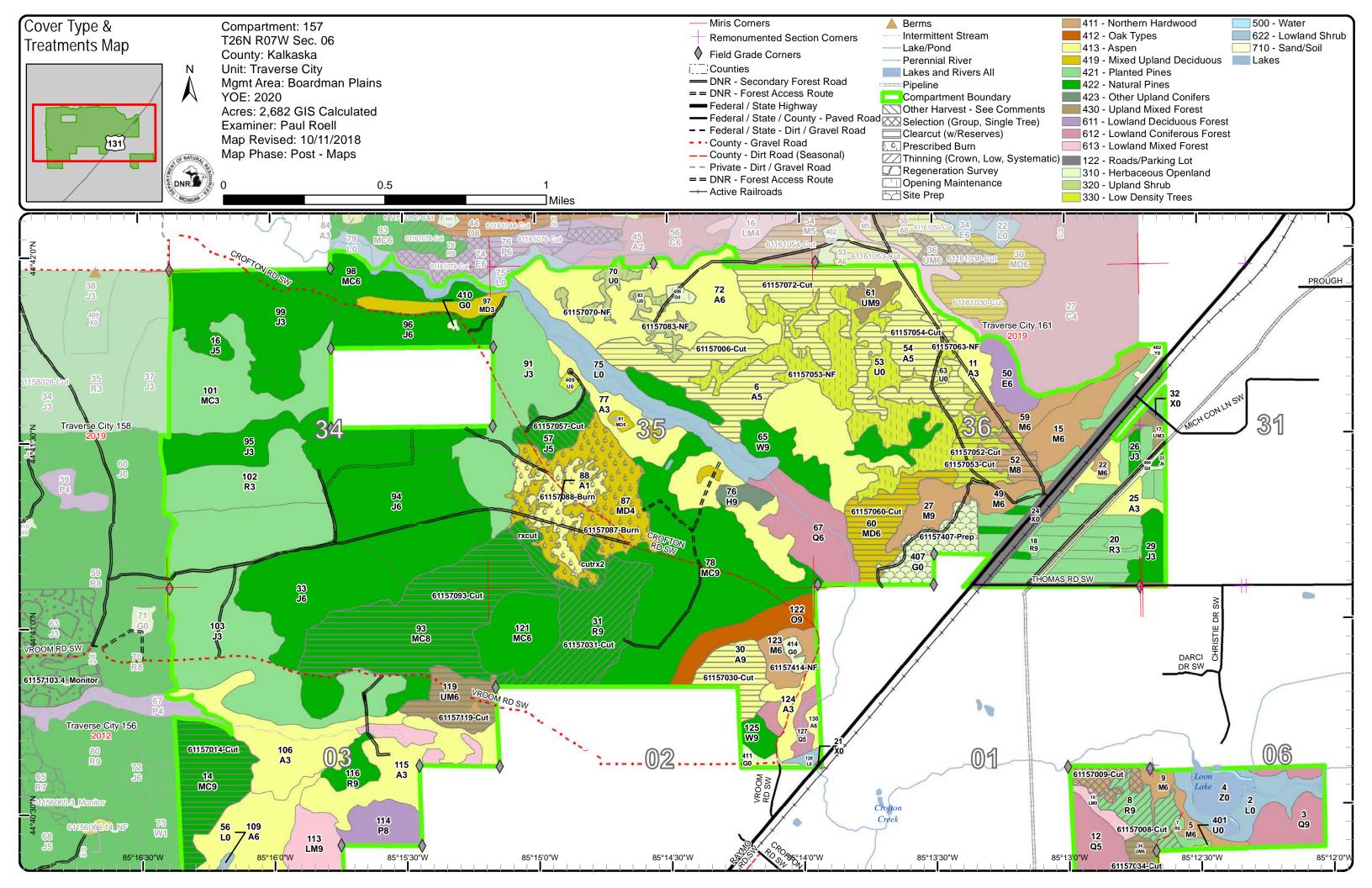
The following information is displayed, where pertinent, on the attached compartment maps:

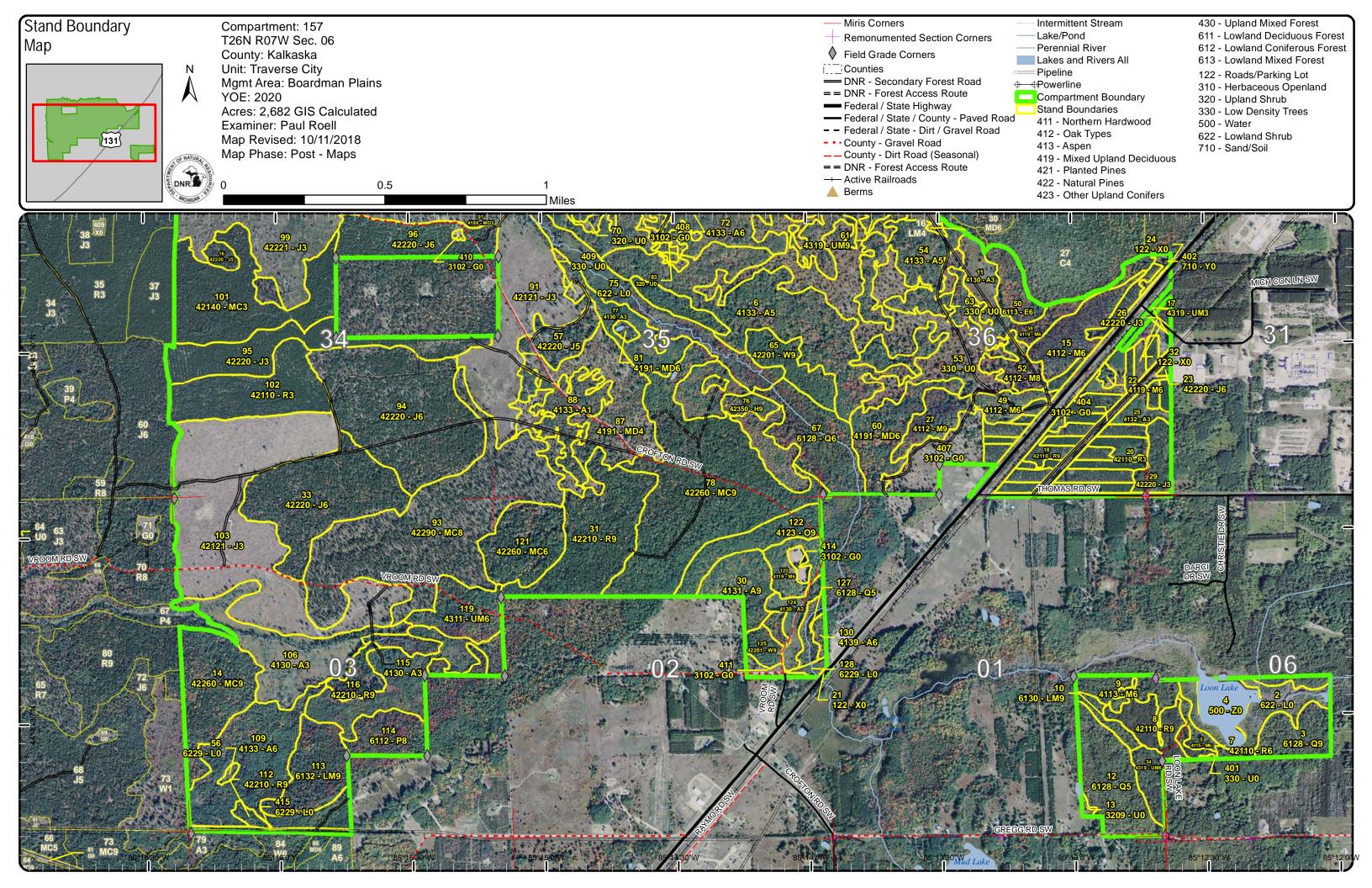
Base feature information, stand boundaries, cover types, and numbers

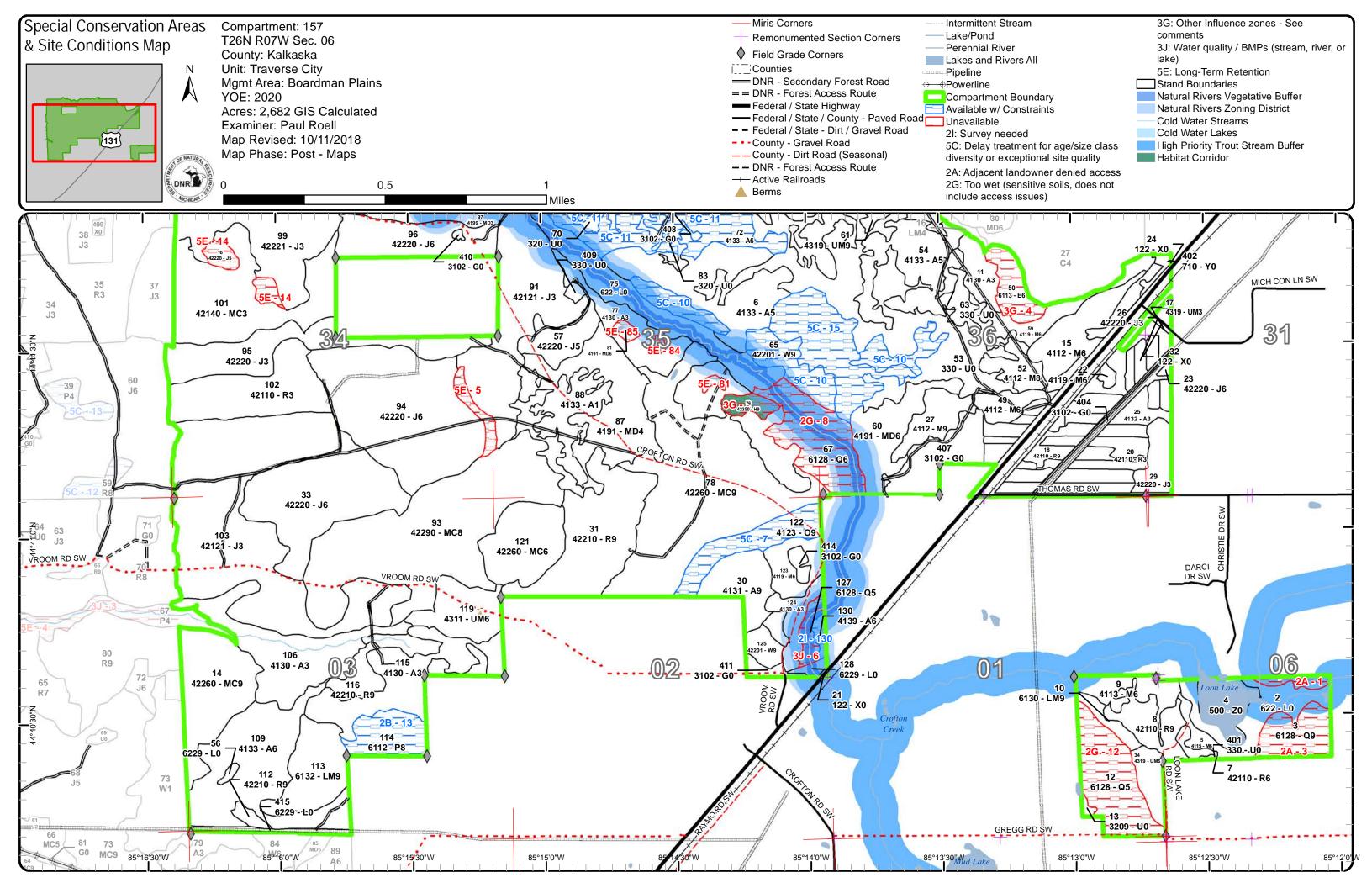
Proposed treatments
Site condition boundaries
Details on the road access system

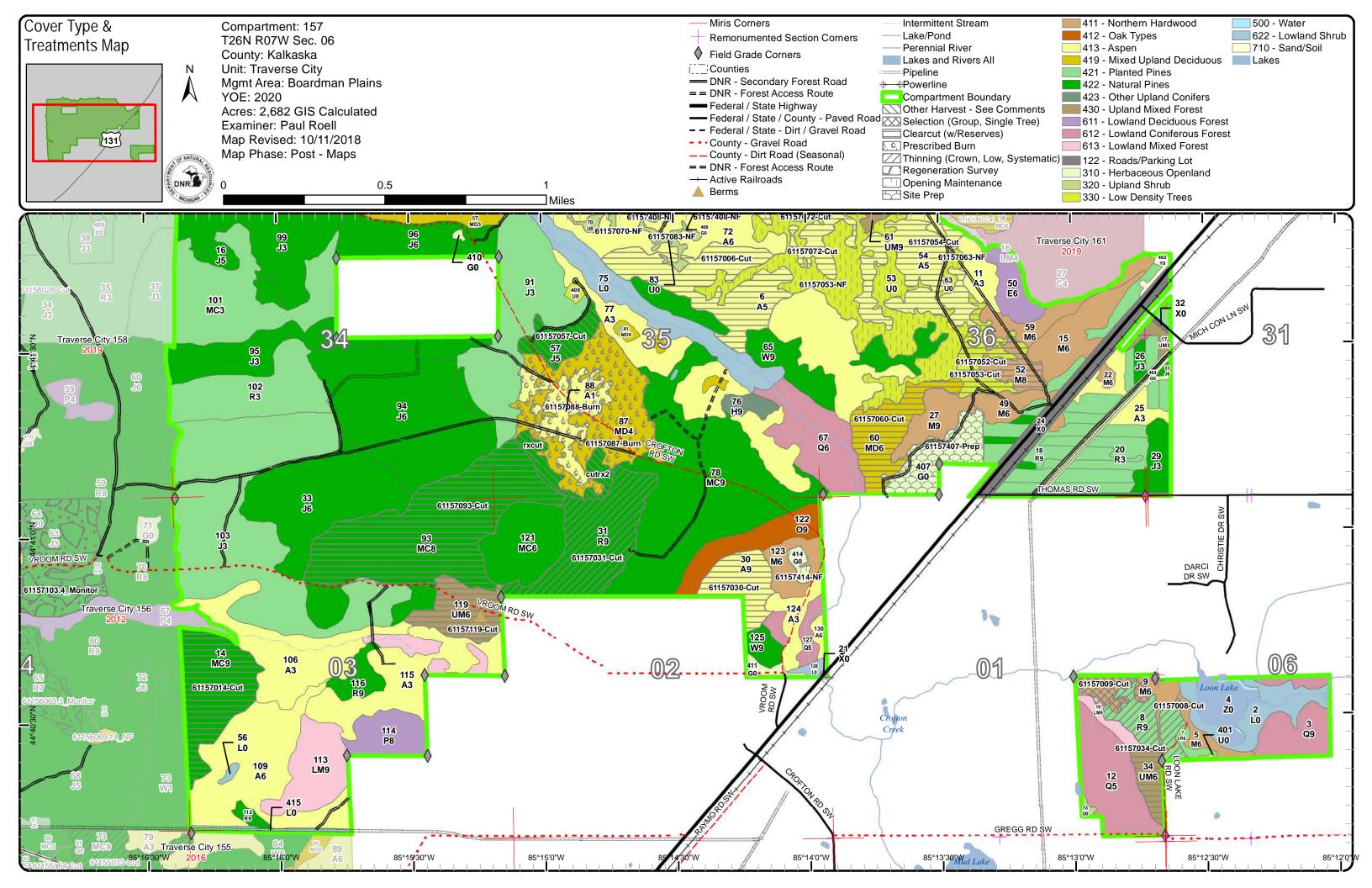


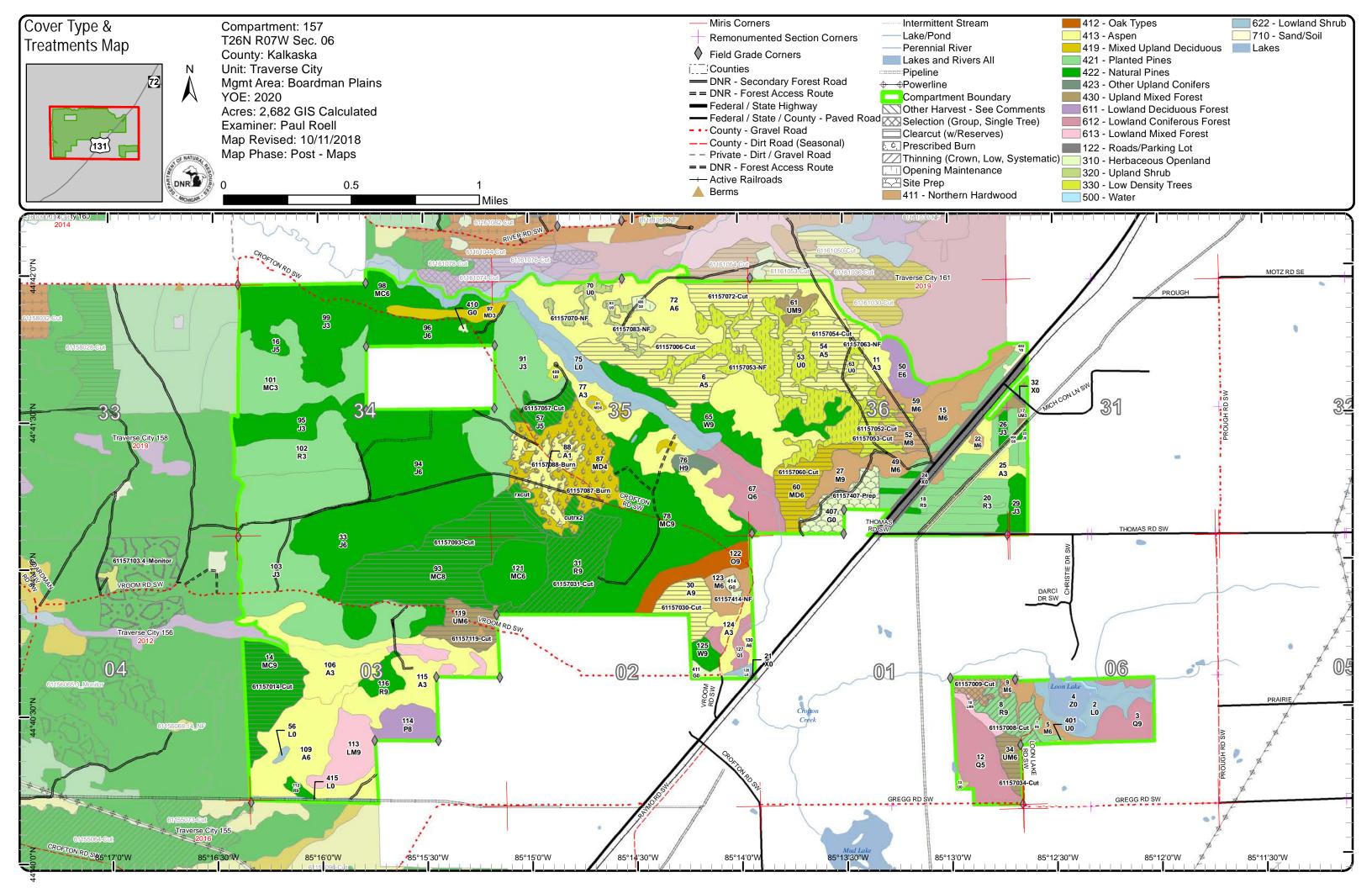












# Report 1 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit

Paul Roell: Examiner

Compartment 157 Year of Entry 2020



## Age Class

			,			,		,		,	,	,		,			,		
	¥or	LA ST				§ / &		, % /&					20, 20,	,				\$ Jun 1	No. No.
Aspen	0	85	111	27	69	219	46	0	21	0	0	0	0	0	0	0	0	0	578
Hemlock	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
Herbaceous Openland	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Jack Pine	0	226	81	58	153	0	70	9	0	0	0	0	0	0	0	0	0	0	597
Low-Density Trees	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	19
Lowland Conifers	0	0	0	0	0	0	0	0	0	38	0	0	9	24	0	0	0	0	71
Lowland Deciduous	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	6	0	0	42	0	0	0	0	0	48
Lowland Shrub	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81
Mixed Upland Deciduous	0	12	0	0	62	0	0	0	34	0	0	0	0	0	0	0	0	0	108
Natural Mixed Pines	0	0	0	0	0	34	0	26	177	139	0	0	0	0	0	0	0	0	376
Northern Hardwood	0	0	0	0	0	0	0	0	3	47	56	11	0	0	0	0	0	0	117
Oak	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23
Planted Mixed Pines	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	67
Red Pine	0	0	0	73	0	0	3	84	0	60	0	0	0	0	0	0	0	0	220
Sand, Soil	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Mixed Forest	0	4	0	0	25	0	0	0	0	18	0	0	0	0	0	0	0	0	46
Upland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Urban	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Water	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
White Pine	0	0	0	0	0	0	0	0	0	7	41	0	0	0	0	0	0	0	47
Total	306	327	192	158	376	253	119	152	235	315	126	11	51	24	0	0	0	0	2642



## **Report 2 – Treatment Summary**

Traverse City Mgt. Unit Year of Entry: 2020

#### **Acres of Harvest**

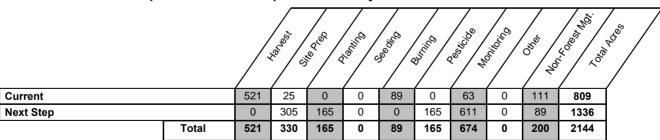
Compartment 157
Total Compartment Acres: 2,682

Commercial Harvest - 521 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**

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Aspen		159	0	0	0	0	0	0	0	0	159
Jack Pine		0	0	0	0	0	0	0	0	16	16
Low-Density Trees		17	0	0	0	0	0	0	0	0	17
Mixed Upland Deciduous		30	0	0	0	0	0	0	0	0	30
Natural Mixed Pines		158	0	0	0	0	0	0	0	7	164
Northern Hardwood		11	10	0	0	0	0	0	0	0	21
Red Pine		0	0	0	0	0	72	0	0	6	78
Upland Mixed Forest		35	0	0	0	0	0	0	0	0	35
	Total	410	10	0	0	0	72	0	0	28	521

## **Proposed and Next Step Treatments by Method**



Other chapter 7 done 5/9/2017

Comment:

**Proposed Start Date:** 10/1 /2009

61157014-Cut 46.1 42260 - Natural Sawtimber 81-110 Harvest Clearcut with 42260 - Natural Even-Aged Approved Proposal Pine, Mixed Well Retention Pine, Mixed

Deciduous

**Habitat Cut: No Site Condition:** 

Prescription Cut all trees four inches in diameter and greater. Mark a couple pines to leave and use minimal area retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable Pine, mixed hardwood and aspen

Regen:

Other Comment:

**Proposed Start Date:** 10/1 /2019 Deciduous

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 157 s Year of Entry: 2020 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Objective Structure Status Name CoverType Density Age Range Type d 61157030-Cut 21.2 4131 - Aspen, Oak Sawtimber Clearcut with 30 70 81-110 Harvest 413 - Aspen Even-Aged Approved Proposal Well Retention **Habitat Cut: No Site Condition:** Prescription cut all trees two inches and greater leave minimal area retention. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Aspen, hardwood and mixed pine Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 31 61157031-Cut 42210 - Natural 171-54.0 Sawtimber Harvest Crown Thinning 4221 - Natural Even-Aged Approved 200 Red Pine Proposal Red Pine Well Site Condition: **Habitat Cut: No** Prescription Mark stand to a residual BA of 100-120 sqft. Specs: Next Step Treatments: Acceptable Regen: Other Comment: Proposed Start Date: 10/1 /2019 34 61157034-Cut 10.7 4319 - Mixed Poletimber 83 81-110 Harvest Clearcut 413 - Aspen Even-Aged Approved **Upland Forest** Well Proposal **Habitat Cut: No Site Condition:** Prescription Cut all trees two inches and greater in diameter. No retention due to small stand size and regeneration concerns. Ok to mark a few big pine to Specs: leave. Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable Aspen, hardwood and mixed conifer.

Regen:

Other Comment:

10/1 /2019 **Proposed Start Date:** 

61157052-Cut 11.0 4112 - Maple, Sawtimber 100 51-80 Harvest Clearcut 42110 - Planted Even-Aged Approved

Red Pine

Beech, Cherry Association

Medium

**Habitat Cut: No Site Condition:** 

Prescription cut all trees low stumps and chipping to facilitate planting operations.

Specs:

SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Next Step

Treatments: Artificial Regen(3yr)

Acceptable a fully stocked stand of planted red pine

Regen: Other Comment:

**Proposed Start Date:** 10/1 /2019 Proposal

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring,

Treatments: Artificial Regen(3yr)

Acceptable A fully stocked stand of red pine

Regen:
Other
Comment:

Proposed Start Date: 10/1 /2019

53 61157053-NF 84.4 330 - Low-Density Nonstocked Unspec NonForestMgt Brush Cutting Trees Unspec NonForestMgt Brush Cutting 3204 - Mast Proposal Proposal

Habitat Cut: No Site Condition:

<u>Prescription</u> Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. As needed, treat site to remove exotics. Seed in site appropriate native grasses and forbs for wildlife food and cover.

The western third or so of this stand has been treated via hydro-axe in 2014. Continue mechanical treatments to maintain this ecosystem in the

absence of fire.

Next Step Treatments:

Acceptable Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

54 61157054-Cut 45.7 4133 - Aspen, Poletimber 50 1-50 Harvest Clearcut with 413 - Aspen Even-Aged Approved Mixed Pine Medium Proposal

Habitat Cut: No Site Condition:

<u>Prescription</u> cut all trees 2 inches and greater leave minimal area retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable aspen, hardwood and mixed pine

Regen:
Other
Comment:

Proposed Start Date: 10/1 /2019

57 61157057-Cut 15.8 42220 - Natural Poletimber 37 1-50 Harvest Other - Specify 310 - Approved Herbaceous Proposal

Openland

Habitat Cut: No Site Condition:

<u>Prescription</u> Harvest site to prep for wildlife burn. Probably cut most trees.

Specs:

Next Step Treatments:

Acceptable Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 157 s Year of Entry: 2020 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Objective Structure Status Name CoverType Density Age Range Type d 60 61157060-Cut 29.6 4191 - Mixed Poletimber 74 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Approved **Upland Deciduous** Proposal Well Retention with Conifer **Habitat Cut: No Site Condition:** Prescription cut all trees two inches and greater use minimal are retention. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Aspen, hardwood and mixed pine Regen: Other Comment: Proposed Start Date: 10/1 /2019 61157063-NF 3.6 330 - Low-Density Nonstocked Unspec NonForestMgt **Brush Cutting** 3204 - Mast Approved Producing Shrub Proposal **Habitat Cut:** No **Site Condition:** Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or Specs: conifers for wildlife food and cover. As needed, treat site to remove exotics. Seed in site appropriate native grasses and forbs for wildlife food This stand has been treated via hydro-axe twice over the past 18 years. Continue mechanical treatments to maintain this ecosystem in the absence of fire. Next Step **Treatments:** <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 61157070-NF 8.5 320 - Upland Shrub Nonstocked 3205 - Mixed Unspec NonForestMat **Brush Cutting** Approved ified Upland Shrub Proposal **Habitat Cut: No Site Condition:** Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or Specs: conifers for wildlife food and cover. As needed, treat site to remove exotics. Seed in site appropriate native grasses and forbs for wildlife food This stand has been treated via hydro-axe twice over the past 18 years. Continue mechanical treatments to maintain this ecosystem in the absence of fire. Next Step **Treatments:** <u>Acceptable</u> Regen: <u>Other</u> The western lobe of this stand would be a nice place for a wildlife food plot. Comment: **Proposed Start Date:** 10/1 /2019 72 61157072-Cut 39.3 4133 - Aspen, Poletimber 49 51-80 Clearcut with 413 - Aspen Harvest Even-Aged Approved Mixed Pine Well Proposal Retention **Habitat Cut: No Site Condition:** Prescription Cut all trees 2 inches in diameter. Leave minimal area retention. Specs:

Other Comment:

Next Step

Regen:

**Treatments:** 

Proposed Start Date: 10/1 /2018

Acceptable aspen mixed with hardwood and pine

Monitoring, Natural Regen (Re-Inventory)

Proposal

Compartment: 157

Year of Entry: 2020

Producing Shrub

s t а

**Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Approva n Method Objective Structure Status Name CoverType Density Age Range Type d 61157083-NF 8.3 320 - Upland Shrub Nonstocked 3204 - Mast 83 Unspec NonForestMat **Brush Cutting** Approved

ified

**Habitat Cut: No Site Condition:** 

Specs:

Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. As needed, treat site to remove exotics. Seed in site appropriate native grasses and forbs for wildlife food and cover.

This stand has been treated via hydro-axe twice over the past 18 years. Continue mechanical treatments to maintain this ecosystem in the absence of fire

Next Step

**Treatments:** 

Acceptable Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

87 61157087-Burn

61.7 4191 - Mixed Poletimber 32 1-50 Burn Openina 3205 - Mixed Approved **Upland Deciduous** Poor **Upland Shrub** Proposal with Conifer

**Habitat Cut: No Site Condition:** 

Specs:

Prescription 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 currents 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, burning, or removal of woody encroachment.

NonForestMgt, Other - Specify Next Step

Treatments:

Acceptable Regen:

Other Comment: This opening was prescribed for burning last entry period but did not make it onto the burn rotation. Continue previous prescription. Check with FRD about including stand 88 in the burn prescription. Burning the A1 stand could stimulate some of the aspen and help convert areas of poor stocking to grassland.

10/1 /2019 Proposed Start Date:

88 6115708827.4 4133 - Aspen.

Mixed Pine

**Site Condition:** 

Sapling Poor

27 1-50 Burn

Opening

3205 - Mixed **Upland Shrub**  Approved Proposal

Burn **Habitat Cut: No** 

Prescription Specs:

Selectively fell woody encroachment in preparation and to facilitate prescribed burn in order to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. As needed, treat site to remove exotics. Then seed to site appropriate grasses for wildlife food and cover. Consider seeding in native grasses and forbs.

Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step

NonForestMgt, Brush Cutting

Treatments:

Acceptable Regen:

Other Comment: This stand was part of a larger upland brush stand that has grown in from lack of fire or corresponding opening maintenance. At least set back outer edges/fingers to upland brush and grasslands. Retain center of this stand, i.e. portion between the two dirt roads, as A1 for cover and edge effect with adjacent U type.

**Proposed Start Date:** 10/1 /2019 s t

а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Objective Structure Status Name CoverType Density Age Range Type d 42290 - Natural 42110 - Planted 93 61157093-Cut 111.8 Sawtimber 87 51-80 Harvest Clearcut with Even-Aged Approved Mixed Pine Red Pine Proposal

Retention

**Habitat Cut: No Site Condition:** 

<u>Prescription</u> cut all trees two inches and greater in diameter require chipping and low stumps to facilitate planting operations.

Medium

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring,

Treatments: Artificial Regen(3yr)

Acceptable fully stocked stand of planted red pine

Regen: Other Comment:

**Proposed Start Date:** 10/1 /2019

103 61157103.4 M 42121 - Planted Sapling Immatu Monitorina Natural Regen 42290 - Natural Two-Aged Draft Field onitor Jack Pine, Mixed Well re (Re-Inventory) Mixed Pine Boundary

Deciduous

**Habitat Cut: No Site Condition:** 

**Prescription** Specs:

Next Step Treatments:

Acceptable red pine, white pine, jack pine.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 10/1 /2019

119 61157119-Cut 24.2 4311 - Pine, Aspen Poletimber 37 51-80 Harvest Clearcut with 413 - Aspen Even-Aged Approved Well Retention Proposal

Prescription cut all trees two inches and greater in diameter. Leave minimal area retention.

Site Condition:

Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

**Habitat Cut:** No

Acceptable aspen, mixed conifer and hardwood

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

25.0 42110 - Planted 407 61157407-3102 - Grass Nonstocked Unspec SitePrep Other - Specify Two-Aged Approved ified Red Pine Proposal

Prep

**Site Condition: Habitat Cut:** No

Prescription prep site to plant red pine.

Specs:

SitePrep, Trenching; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Next Step

**Treatments:** 

Acceptable fully stocked stand of planted red pine.

Regen: Other Comment:

**Proposed Start Date:** 10/1 /2019

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 157 s Year of Entry: 2020 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Objective Density Structure **Status** Name CoverType Age Range Type d 61157408-NF 408 2.7 3102 - Grass Nonstocked Unspec NonForestMgt Herbaceous/Crop 3105 - Mixed Approved Upland Proposal ified /Grass Planting Herbaceous **Habitat Cut: No** Site Condition: Prescription Degraded old well site. Treat site to remove exotics. Then reseed to site appropriate native grasses for wildlife food and cover. Consider also seeding in native forbs. Specs: Next Step Treatments: <u>Acceptable</u> Regen: <u>Other</u> Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment. Comment: **Proposed Start Date:** 10/1 /2019 3102 - Grass 61157414-NF 3.2 Nonstocked Unspec NonForestMgt Herbaceous/Crop 3105 - Mixed Approved ified /Grass Planting Upland Proposal Herbaceous **Habitat Cut: No** Site Condition: Prescription This opening is a traditional wildlife planting. Plant to annual rye for several years and then convert to a pasture mix (i.e. clover/alfalfa) or appropriate native seed mix if soil will support it. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody Specs: encroachment. Next Step Treatments: **Acceptable** Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 31 cutrx2 5.9 42210 - Natural Sawtimber 85 171-Harvest Other - Specify 310 -Approved Red Pine Well 200 Herbaceous Proposal Openland **Habitat Cut: No Site Condition:** Prescription Harvest site to prep for wildlife burn. Probably cut most trees. Specs: Next Step Treatments: **Acceptable** Regen: Other

Comment:

Proposed Start Date: 10/1 /2019

93 42290 - Natural Sawtimber 51-80 Harvest Other - Specify 310 rxcut Approved Mixed Pine Medium Herbaceous Proposal Openland

**Habitat Cut: No Site Condition:** 

Prescription Harvest site to prep for wildlife burn. Probably cut most trees.

Specs:

Next Step

**Treatments:** 

**Acceptable** 

Regen:

Other

Comment:

**Proposed Start Date:** 10/1 /2019

**Total Treatment Acreage Proposed:**  808.5

Compartment: 157

Traverse City Mgt. Unit

Paul Roell: Examiner Year of Entry: 2020

Availa	ability for	Managemer	nt									
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Cond	dition	s			
Acres	Available	With Condition	Not Available		2B	21	5C	2A	2G	3G	3J	5E
578	400	126	52	Aspen		3	123				52	
6	0	0	6	Hemlock						6		
46	46	0	0	Herbaceous Openland								
597	589	0	8	Jack Pine								8
108	108	0	0	Low-Density Trees								
19	0	19	0	Lowland Aspen/Balsam Poplar	19							
110	0	0	110	Lowland Conifers				24	76		9	
14	0	0	14	Lowland Deciduous						14		
47	6	0	42	Lowland Mixed Forest							42	
81	81	0	0	Lowland Shrub								
108	104	0	5	Mixed Upland Deciduous								5
377	371	0	6	Natural Mixed Pines								6
116	116	0	0	Northern Hardwood								
23	0	23	0	Oak			23					
67	67	0	0	Planted Mixed Pines								
219	219	0	0	Red Pine								
2	2	0	0	Sand, Soil								
47	47	0	0	Upland Mixed Forest								
18	18	0	0	Upland Shrub								
35	35	0	0	Urban								
16	16	0	0	Water								
47	7	40	0	White Pine			40					
2,683	2,232	209	242	Total Forested Acres	19	3	187	24	76	20	103	18
	83%	8%	9%	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.		<b>Dominant Site Condition</b>	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2A: Adjacent landowner denied access	4	3D: Recreational / Scenic values	3G: Other Influence zones - See comments	Unspecified	Unspecified
(	Comments:						

# Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell: Examiner

2	Unavailable	3G: Other Influence zones - See comments	6	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments: Unique stand: upla	nd, nearly pure hemlock.						
3	Unavailable	2A: Adjacent landowner denied access	20	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	Unspecified	Unspecified	Unspecified	
Comments:								
4	Unavailable	3G: Other Influence zones - See comments	14	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified	
	Comments: Unique stand also	an SCA						
5	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments:							

# Report 4 – Site Conditions

Traverse City Mgt. Unit
Paul Roell: Examiner

8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	38	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	41	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	81	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	38	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
13	Available	2B: Unknown if access through adjacent landowner(s) is possible	19	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
14 C	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified

# **Report 4 – Site Conditions**

Compartment: 157
Year of Entry: 2020

Traverse City Mgt. Unit

Paul Roell: Examiner

15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	43	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
81	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
84	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
35	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
130	Available	2l: Survey needed	3	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

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				

Traverse City Mgt. Unit Compartmen





# 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	ies to persist from year to year. Suitable ey are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from see conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effects as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian cts on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from sp approved distance from the river centerlines. The Natural Rivers most Natural Rivers. The Vegetative Buffer ranges from 25 to 10 and Vegetative Buffers for each Natural River see the table locat folder.	S Zoning District is a 400 foot buffer for 200 feet. To view specific Zoning Districts

s t	Traverse City	Traverse City Mgt. Unit			<ul><li>Forested</li></ul>	Stands Compartment: 157 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	24.0	128	111-140	
5	4115 - Y.Birch, Hemlock NH	Poletimber Well	6.7	89	81-110	Variable stand, aspen clone to mixed northern hardwoods.  There are
6	4133 - Aspen, Mixed Pine	Poletimber Medium	95.8	48	1-50	OPIC - FMD: 2/8/2008 Old KG cutting. Nice growth on white pine saps.(Grieve) 4/22/1999, Some nice, some fair, some very poor. SI & age taken from 1989 inventory. (Grieve) 3/8/1989, SCATTERED OAK SAWLOGS IN STAND BUT LESS THAT 10SQFT (Byers)
7	42110 - Planted Red Pine	Poletimber Well	2.9	51	81-110	Stand was planted in 1955 and then replanted in 1967 after a fire killed a majority of the trees.
8	42110 - Planted Red Pine	Sawtimber Well	18.2	63	171-200	OPIC - FMD: 1/29/2008 Was cut lat time around, let go for ten more years. (Grieve) 3/4/2004 TS# 040-01-1 (Grieve) 4/5/1999, Third row thinning. Nice looking. Couty road coming into this stand has been in since 1936. Land owner to the east (Kenneth Sytokowski) does not want the road there. Keeps blocking the road. The County at the DNR request keeps openning the road back up. (Grieve)
9	4113 - R.Maple, Conifer	Poletimber Well	15.6	89	81-110	OPIC - FMD: Stand was selection harvest with Loon Lake Hardwood in 2011. Left 80-100 BA residual.  (KS)  8/19/2008  Retain all mast producing trees. (Grieve) 1/29/2008 Selection cut needed, small sale, water table down (Grieve) 4/5/1999, Hemlock also in understory. Stand is wet not practicale to harvest at this time. (Grieve)
10	6130 - Fir, Aspen, Maple	Sawtimber Well	5.6	89	81-110	
11	4130 - Aspen	Sapling Well	21.9	6	1-50	Cut in the spring of 2013 under Amoeba Mix contract 61-066-10- 01
12	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	38.1	80	51-80	
14	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	46.1	79	81-110	Many White pine stumps
15	4112 - Maple, Beech, Cherry Association	Poletimber Well	24.6	87	51-80	Stand thinned with Hammer Lane Hardwood. There were very clumpy multi stemed trees removed.
16	42220 - Natural Jack Pine	Poletimber Medium	8.0	60	1-50	Hand planted to red pine in 1989 FTP # C-62-378.
17	4319 - Mixed Upland Forest	Sapling Well	4.4	9	Immature	

S t	Traverse City	Traverse City Mgt. Unit			– Forested	Stands Compartment: 157 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	42110 - Planted Red Pine	Sawtimber Well	52.9	63	141-170	Stand was thinned in the spring of 2013 under Sentinel Red contract 61-067-10-01
20	42110 - Planted Red Pine	Sapling Well	25.6	25	Immature	
22	4119 - Mixed Northern Hardwoods	Poletimber Well	2.9	75	1-50	
23	42220 - Natural Jack Pine	Poletimber Well	0.8	68	51-80	
25	4132 - Aspen, Jack Pine	Sapling Well	13.1	15	Immature	TS# 36-01
26	42220 - Natural Jack Pine	Sapling Well	6.0	19	Immature	
27	4112 - Maple, Beech, Cherry Association	Sawtimber Well	15.4	92	81-110	
29	42220 - Natural Jack Pine	Sapling Well	12.3	27	Immature	Stand started from fire
30	4131 - Aspen, Oak	Sawtimber Well	21.2	70	81-110	
31	42210 - Natural Red Pine	Sawtimber Well	59.9	85	171-200	
33	42220 - Natural Jack Pine	Poletimber Well	70.0	56	1-50	
34	4319 - Mixed Upland Forest	Poletimber Well	10.7	83	81-110	OPIC - FMD: 1/29/2008 E-type, almost a M. Was M last time. I think I will change it to an E-type. Just to wet, but does have some high islands through out stand. (Grieve) 4/5/1999, High water table but not an E-type. Lots of humics. Aspen looks bad. Was told to recode this to an E-type at review. If selection cut would blow down. (Grieve)
49	4112 - Maple, Beech, Cherry Association	Poletimber Well	10.0	92	81-110	
50	6113 - Lowland Maple	Poletimber Well	14.2	69	81-110	
52	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	11.0	100	51-80	
54	4133 - Aspen, Mixed Pine	Poletimber Medium	45.7	50	1-50	

s t	Traverse City	Traverse City Mgt. Unit			- Forested	Stands Compartment: 157 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	42220 - Natural Jack Pine	Poletimber Medium	15.8	37	1-50	Discuss with FRD about adding this stand to barrens management of stands 87 and 88 which are adjacent to the south. Would want to keep oak, red pine, and some of the bigger white pine. The road along the north edge could be used as part of the fireline.
59	4119 - Mixed Northern Hardwoods	Poletimber Well	16.6	93	81-110	
60	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	29.6	74	81-110	
61	4319 - Mixed Upland Forest	Sawtimber Well	7.2	88	51-80	
65	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	40.5	98	81-110	
67	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	38.1	86	51-80	
72	4133 - Aspen, Mixed Pine	Poletimber Well	120.2	49	51-80	
76	42350 - Upland Hemlock	Sawtimber Well	6.2	90	171-200	
77	4130 - Aspen	Sapling Well	52.4	15	Immature	
78	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	131.0	79	81-110	Many White pine stumps
81	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	4.6	79	81-110	Retentions from old cut.
87	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	61.7	32	1-50	Clumpy jack pine & aspen otherwise scrub cherry throughout.
88	4133 - Aspen, Mixed Pine	Sapling Poor	27.4	27	1-50	
91	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	73.3	6	Immature	1 year regen survey in 2015. No TMS concerns. Stand has gone through final harvest as part of Tri-Attack Jack in 2013 (SC). A few mature oaks left
93	42290 - Natural Mixed Pine	Sawtimber Medium	139.4	87	51-80	Stand was cut in the summer of 2013 under contract Outhouse Mouse Pine 61-039-10-01.
94	42220 - Natural Jack Pine	Poletimber Well	102.1	39	1-50	

s t	Traverse City Mgt. Unit			Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 157 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
95	42220 - Natural Jack Pine	Sapling Well	45.5	24	Immature	Stand was cut in 1992 Crofton Creek sale TS# 46-90. Stand was site prepped with roller chopping and anchor chains FTP # C62-484
96	42220 - Natural Jack Pine	Poletimber Well	34.5	33	1-50	Timber Sale # 42-81.
97	4199 - Other Mixed Upland Deciduous	Sapling Well	12.1	6	1-50	Seed tree/ shelterwood harvest leaving mostly oak. Amoeba Mix 61-066-10-01
98	42290 - Natural Mixed Pine	Poletimber Well	26.2	63	81-110	Along the banks of the North Branch Boardman River Area between bluff and creek.
99	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	75.1	15	Immature	Took sometime for the jack pine to establish but nice natural stand
101	42140 - Planted Mixed Pine	Sapling Well	66.9	31	Immature	Hand planted to red pine in 1989 FTP # C-62-378.
102	42110 - Planted Red Pine	Sapling Well	47.0	26	Immature	Stand was planted with red pine in 1993 FTP C62-480.
103	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	153.1	4	Immature	Stand was final harvested under contract Hatteras Jack 61-069- 10-01 in July of 2013. 1 year regen survey completed in 2016.
106	4130 - Aspen	Sapling Well	51.5	5	Immature	10/21/2013 Stand was harvested in 2013. Buffered out the drainage and was able to cross it with crane mats (61-041-10-01).
109	4133 - Aspen, Mixed Pine	Poletimber Well	69.1	35	51-80	Stand was harvested in 1982 pockets of aspen weren't cut some older clones mixed in and there is a dense strip of red and white pine regenerating on the edge adjacent to the pipeline assuming it seeded in when the pipe was buried.
112	42210 - Natural Red Pine	Sawtimber Well	2.9	60	81-110	
113	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	41.7	110	111-140	
114	6112 - Lowland Aspen	Sawtimber Medium	19.4	67	81-110	drainage in stand
115	4130 - Aspen	Sapling Well	45.4	14	Immature	Stand was cut under West Crofton Rd Aspen 61-049-01-1 in 2004.
116	42210 - Natural Red Pine	Sawtimber Well	10.0	65	111-140	
119	4311 - Pine, Aspen Mix	Poletimber Well	24.5	37	51-80	Looks like some red maple, oak, and most pine were left from a harvest 40 years ago.

s t	Traverse City Mgt. Unit			Report 7	- Forested S	Compartment: 157 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
121	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	34.0	41	81-110	Stand was thinned in 1992.
122	4123 - Red Oak	Sawtimber Well	23.2	91	81-110	
123	4119 - Mixed Northern Hardwoods	Poletimber Well	13.6	91	81-110	
124	4130 - Aspen	Sapling Well	11.6	6	Immature	Amoeba Mix 61-066-10-01
125	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	6.9	89	111-140	
127	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	9.4	116	51-80	Creek runs through stand power line on the south end fair amount of blow down and dead cedar
130	4139 - Aspen, Mixed Deciduous	Poletimber Well	2.8	49	51-80	



Stand	Cover Type	Acres	Managed Site	General Comments:
2	622 - Lowland Shrub	24.1	No	A lot of dead standing cedar
4	500 - Water	15.8	No	Loon Lake.
13	3209 - Upland Shrub (OI)	1.2	No	OPIC - FMD: 1/29/2008 U-type, small scattered cherry. Was grass last time around. (Grieve) 4/5/1999, Talked with land owner to the south about this stand. Told him he needed to clear the trash & clean up the stand. There is also a small pond which is just on to state by about 2 feet. This was dug in 1976 but has been missed in the last two inventories. The spoils are mostly on state. There are now good private corners. Gave owner till fall to clean up area. (Grieve)
21	122 - Road/Parking Lot	0.3	No	
24	122 - Road/Parking Lot	33.4	No	
32	122 - Road/Parking Lot	0.8	No	OPIC - FMD: 3/25/2008 Paved road access to oil & gas company office. (Grieve)
53	330 - Low-Density Trees	101.8	Yes	Scrub cherry, aspen, red maple & white pine scattered throughout.
56	6229 - Mixed lowland shrub	1.2	No	
63	330 - Low-Density Trees	3.6	Yes	Mostly scrub cherry scattered with aspen & white pine saps.
70	320 - Upland Shrub	8.5	Yes	Mostly scrub cherry scattered with aspen, red maple & white pine saps.
75	622 - Lowland Shrub	48.6	No	Beaver activity and portions of the north branch are in this stand. Some pine, cedar, red maple and aspen found within the stand.
83	320 - Upland Shrub	8.3	Yes	Scrub cherry, aspen, red maple & white pine scattered throughout.
128	6229 - Mixed lowland shrub	2.3	No	
401	330 - Low-Density Trees	0.7	No	
402	710 - Sand, Soil	2.2	No	Old gravel pit
404	3102 - Grass	10.1	No	Pipe line.
407	3102 - Grass	25.0	No	

# Report 8 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
408	3102 - Grass	2.7	Yes	Abandon well site.
409	330 - Low-Density Trees	1.7	No	Abandon well site.
410	3102 - Grass	0.6	Yes	spoils of a sand from a snorkel trap form the North Branch.
411	3102 - Grass	4.0	No	
414	3102 - Grass	3.2	Yes	Wildlife opening
415	6229 - Mixed lowland shrub	5.0	No	Pipeline