

### **Compartment Review Presentation**

**Traverse City Forest Management Unit** 

Compartment 61041 Entry Year 2017 Acreage: 3,174

**County Grand Traverse** 

Management Area: Williamsburg Moraine

Revision Date: 2015-05-27

Stand Examiner: Pat Ruppen

**Legal Description:** 

T27N - R09W - Sec. 7, 8, 9, 10, 15, 16, 17, 18

#### **Identified Planning Goals:**

This compartment is within the Williamsburg Moraine Management Area(MA). Vegetation management in this (MA) will provide various forest products; maintain or enhance wildlife habitat; protect areas of unique character and threatened, endangered and special concern species; and provide for forest-based recreational uses. Three main management objectives identified for this management area for this 10-year planning period include: (1)improving the age-class structure of aspen., (2) regenerating oak, (3) the continuation of management through selection or restarting harvests of red pine and upland hardwood communities.

This compartment falls within land-type associations 1111 and 1122 of sub-subsection VII.5.1, LTA 1111, which occurs in the southwestern two-thirds of the compartment, is characterized by steep broken moraine ridges, few kettle lakes, and excessively drained sandy soil. The circa 1800 vegetation of LTA 1111 was American beech/sugar maple and white pine/beech/red maple forests. MIRIS current land cover maps show LTA 1111 to be dominated by aspen/birch, hardwood, and conifer woodlands. LTA 1122, which occurs in the northeastern portion of the compartment, is characterized by steep broken moraine ridges and well drained loamy sand and sandy loam. Circa 1800, LTA 1122 was characterized by American beech/sugar maple forests. LTA 1122 is presently characterized by cropland and Northern hardwood forests. Several management concerns were identified in this re-inventory process. Several mature jack pine stands remain that have shown poor growth and form on these soils. In addition, they have moderate storm damage and mortality. Most of this acreage will be prescribed for final harvest and re-planting to red pine. In addition some previously harvested jack pine stands have robust jack pine regeneration, but due to this specie's poor performance on these soils it is recommended that these stands be chopped and re-planted to red pine. Hardwood stands in this compartment have been thinned in the past with little success at recruiting new age classes of desirable species in the understory. This is likely due to selective deer browsing on desirable species, (oak and northern hardwoods), which was noted in inventory. Most stands have moderate to heavy ironwood and beech understory at this time. A number of possible oak wilt infection centers have been identified in this compartment. They will be evaluated and a determination of treatment options will be made. If necessary, red oak salvage harvests will be prescribed in these stands. Red oak found in this compartment is of high quality but the ability to regenerate oak by sprouting or seeding seem to be very limited due to browsing concerns and the beech and ironwood seed bank. Several red pine stands were also identified that have moderate beech and ironwood understory and poor northern hardwood seedling recruitment. It is recommended that these stands are harvested and re-planted to red pine to build the soil potential on these sites. Many of these pine stands were originally planted on agricultural fields with depleted soils. Some remnant Christmas Tree fields and Scotch Pine stands were found in Section 7. An effort should be made to eliminate this Scotch Pine seed source as it is very invasive on these soils.

Wildlife habitat management objectives include increasing the structural complexity of upland hardwood communities for forest interior species; perpetuating early-successional communities for young-forest-dependent species, hunting and other wildlife-related recreation opportunities; maintaining soft and hard mast sources including oak. Expected trends within this 10-year planning period are: increased recreational pressure, especially on established trails; increased oil and gas development; issues with introduced pests and diseases, especially beech bark disease oak wilt and emerald ash borer; an increased need to regenerate oak and red pin

#### Soil and topography:

Rubicon sands. Compartment is slightly rolling to rolling.

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

Scattered State – Private ownership within and around the comp. Heavy residential development occurring around comp. This area receives heavy recreational use throughout the year from skiers, bikers, hikers and hunters.

#### **Unique Natural Features:**

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

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

Visual and BMP considerations along all lakes, bogs, marshes, streams and recreational trails.

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

This compartment contains both Acme Creek and Follet Creek, which is a tributary to Williamsburg Creek. Follet Creek supports a naturally reproducing brook trout population. Acme Creek is a designated trout stream that supports naturally reproducing brown trout, rainbow trout, brook trout, coho salmon and Chinook salmon. Reasonable buffers (as outlined in Water Quality Management Practices on Forest Land) should be adhered to around all streams in this compartment. Existing buffers appear to be appropriate for the proposed treatments.

#### Wildlife Habitat Considerations:

The SW half of the compartment lies on a steep moraine ridge (LTA 1111). Soils are sandy and excessively drained. Within this compartment, aspen stands, northern hardwoods, red pine plantations, and forested openings are located on this LTA type. The NE portion of Compartment 41 consists of a moraine ridge with well drained loamy sands (LTA 1122). Habitat types are similar to those of LTA 1111.

Ruffed grouse use different aged aspen throughout their life cycle. Younger stands provide cover while older stands provide catkins (food source) for the winter months. Within each compartment, clear cutting helps facilitate different sized aspen trees by mimicking the necessary disturbance vital for regeneration. The inclusion of coarse woody debris (CWD) for drumming logs and maintaining berry-producing shrubs is also desirable. Wildlife considerations for northern hardwood stands involve maintaining tree species diversification, the inclusion of den/nesting trees & snags, CWD, and maintaining a scattering of mast-producing trees/shrubs. This will insure use by many species of wildlife. Examples of species include scarlet tanager, raccoon, broad-winged hawk, wild turkey, and white-tailed deer. Many wildlife species rely on small forest openings. These openings provide grassy nest sites, plentiful seeds and insects, and cover. Examples of species include northern flicker, eastern chipmunk, and blue racer. Hand felling with chainsaws may be needed to maintain this forest edge habitat.

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

Surface sediments consist of an end moraine of coarse-textured till. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. There is no current economic use for the Coldwater. A gravel pit is located one mile to the east and there should be good potential. This area is located along the north edge of the prolific Niagaran reef trend and has had minor previous production. Most of the Compartment is leased for oil and gas exploration. Additional reefs could be found in the compartment or the Antrim Shale may be developed in this area.

#### **Vehicle Access:**

No new roads are needed and no closures.

#### **Survey Needs:**

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

A section of the Vasa non-motorized pathway is located in the SW corner of this compartment, and a short section of Snowmobile Trail #55 (Boardman Valley Snowmobile Trail) is located in the SE corner of this compartment. Trail protection specifications should be included in any timber sale impacting these recreational facilities. Specifically, measures identified in DNR Policy & Procedures "32.22XX Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails" should be adhered to. Fishing and hunting are also popular within this compartment (T.M.N. 12/9/14).

#### **Fire Protection:**

: This area is protected by Grand Traverse Fire Dept. Battalion # 3, and DNR protection is from the Traverse City Field Office. Access is acceptable. There is not a lot of recent wildfire in this compartment. Fires that have occurred have been fairly small. It is mostly hardwood, with some scattered pine. There is quite a bit of residential activity occurring around this compartment, so Urban Interface issues could be a problem in the future.

#### **Additional Compartment Information:**

The following reports from the Inventory are attached:

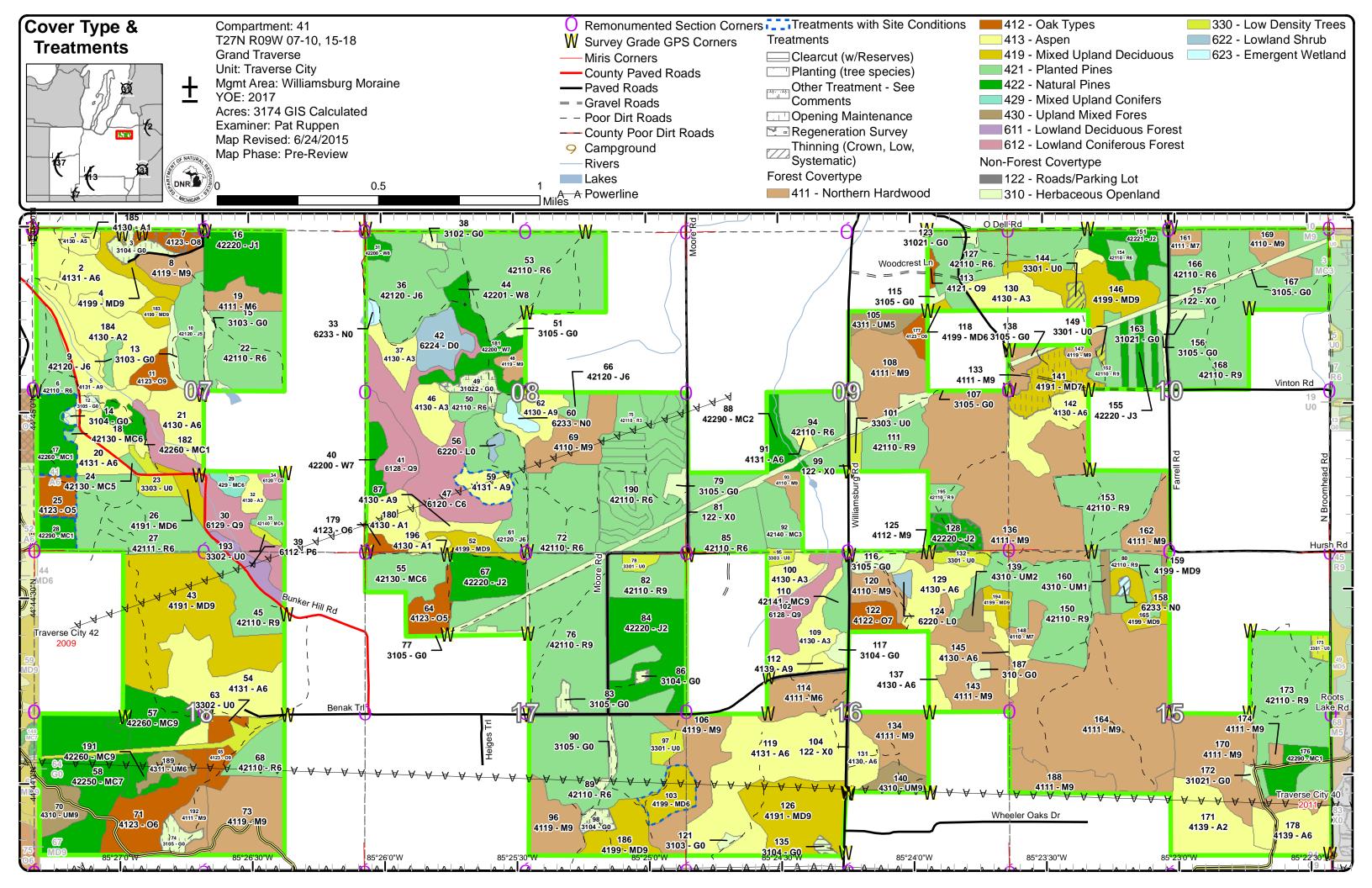
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

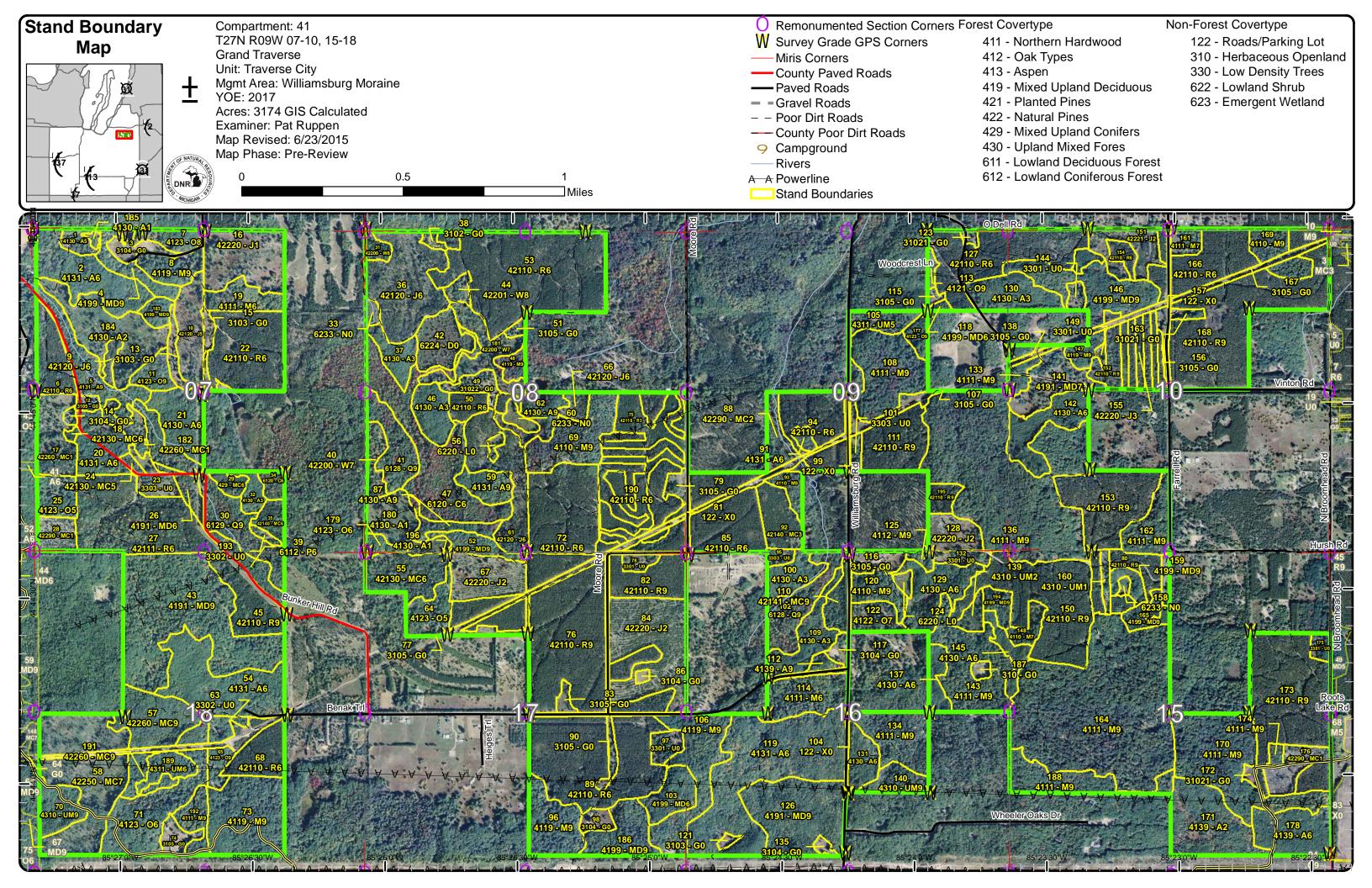
The following information is displayed, where pertinent, on the attached compartment maps:

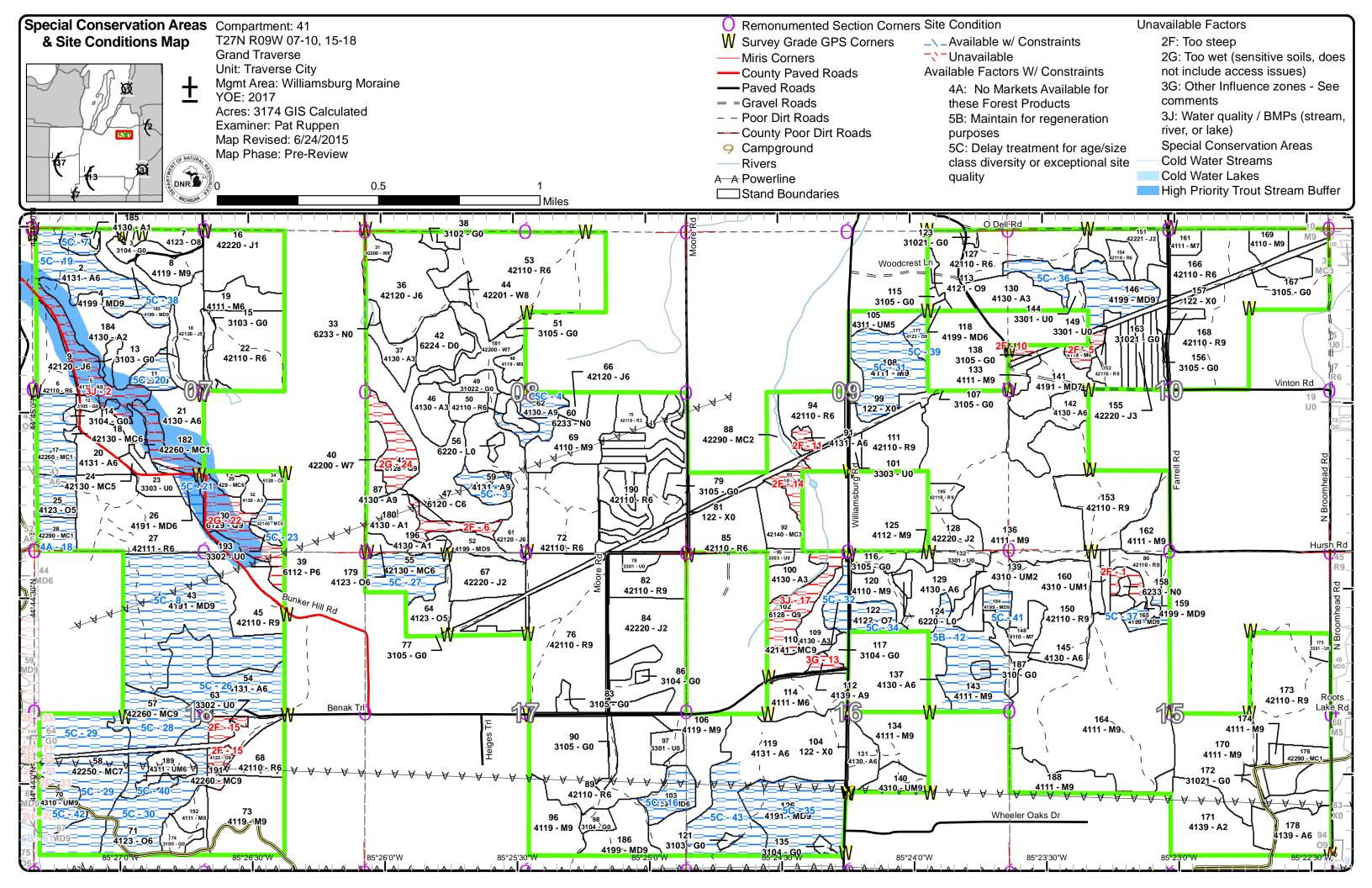
Base feature information, stand boundaries, cover types, and numbers Proposed treatments

Site condition boundaries

Details on the road access system







Traverse City Mgt. Unit

Pat Ruppen: Examiner

Compartment 41

Year of Entry 2017



Age Class

	Aor Aor	L'OS C	3 / 2	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	15	8 / \$	St. St.	3/8	\$ / K	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	80 80	\$ \\ \g	70,	S. /S.	N. S. S.	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Z. L. S.	3x Jug	No. No.
Aspen	0	50	33	101	42	52	107	43	50	0	3	0	0	0	0	0	0	0	481
Cedar	0	0	0	0	0	0	0	0	0	0	4	49	0	0	0	0	0	0	53
Herbaceous Openland	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107
Jack Pine	0	54	71	0	0	0	92	0	0	0	0	0	0	0	0	0	0	0	217
Low-Density Trees	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Lowland Aspen/Balsam Poplar	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Conifers	0	0	0	0	0	0	0	0	0	16	31	18	0	0	0	0	0	0	65
Lowland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Marsh	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Mixed Upland Deciduous	0	0	0	0	0	0	64	0	62	12	5	100	0	0	0	0	0	0	243
Natural Mixed Pines	0	11	41	0	0	0	0	7	22	0	54	0	0	0	0	0	0	0	135
Northern Hardwood	0	0	0	0	0	0	0	0	16	0	331	277	0	0	0	0	0	5	629
Oak	0	0	0	0	0	0	22	0	3	16	47	5	0	0	0	0	0	2	95
Planted Mixed Pines	0	0	14	0	20	9	0	0	0	7	0	0	0	0	0	0	0	0	50
Red Pine	0	0	36	0	0	0	829	53	0	0	0	0	0	0	0	0	0	0	918
Treed Bog	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Upland Conifers	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Mixed Forest	0	6	4	8	0	0	17	0	0	0	12	0	0	0	0	0	0	0	47
Urban	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
White Pine	0	0	0	0	0	3	7	3	19	0	0	0	0	0	0	0	0	0	32
Total	199	121	199	109	70	68	1138	106	172	51	487	449	0	0	0	0	0	7	3176



### **Report 2 – Treatment Summary**

Traverse City Mgt. Unit Year of Entry: 2017

#### **Acres of Harvest**

Compartment 41
Total Compartment Acres: 3,174

Commercial Harvest - 0 Harvests with Site Condition - 31 Next Step Harvest - 0 Habitat Cut - 176

### **Cover Type by Harvest Method**

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**Proposed Start Date:** 10/1 /2016

18 61041018-Cut 42130 - Planted Poletimber 43 81-110 Clearcut with 4211 - Planted Even-Aged Draft Proposal 0.9 Harvest

Scotch Pine Red Pine Well Retention

**Habitat Cut: No Site Condition:** 

Prescription Harvest all scotch pine to remove seed source from this area. Trench and plant with red pine.

Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

Acceptable red pine. oak, white pine, northern hardwoods.

Regen:

Other Old next step comments:

Comment:

Traverse City Mgt. Unit

Report 4 -- Treatments

Compartment: 41 Year of Entry: 2017

Even-Aged Draft Proposal

а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d

> 7.7 3303 - Mixed Low Nonstocked SitePrep 4211 - Planted Roller Chopping **Density Trees** Red Pine

**Habitat Cut: Yes Site Condition:** 

Prescription Chop site to eliminate scotch pine, autumn olive and other vegetation. Mature scotch pine should be harvested with stand 24. Trench and plant

with stand 24 and 182 after site preparation. Specs:

SitePrep, Trenching; Planting, Initial Plant Next Step

**Treatments:** 

61041023-

Prep

Acceptable red pine, white pine, oak, aspen, maple, basswood

Regen:

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23

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

24 61041024-Cut 1.6 42130 - Planted Poletimber 43 81-110 Clearcut 4211 - Planted Even-Aged Draft Proposal Harvest

Scotch Pine Medium Red Pine

**Habitat Cut: No Site Condition:** 

Prescription Harvest scotch pine to remove seed source from this area. It is very invasive and seeding in all over surrounding ground.

Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

**Treatments:** 

Acceptable red pine, oak, aspen, northern hardwoods.

Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:** 

Poletimber Even-Aged Draft Proposal 61041025-Cut 10.0 4123 - Red Oak 55 51-80 Clearcut with 42111 - Planted Harvest Medium Retention Red Pine.

Mixed

Deciduous

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

Prescription Retain some well formed oak and chip harvest remaining stems to prep site for trenching and planting. Treat wit stands 17 and 28. These

Specs: treatments are non commercial at this time.

Next Step

Treatments:

Acceptable red pine, oak, white pine

Regen:

Other scotch pine needs to be controlled in stand. Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

61041028-28 8.1 42290 - Natural Sapling 15 Immatu SitePrep Scarification 42110 - Planted Even-Aged Draft Proposal

Mixed Pine Poor Red Pine Prep re

Site Condition: No Markets **Habitat Cut: Yes** 

Prescription Mechanically eliminate remnants of old Christmas tree plantation. Trench and plant site after treatment. Seed from scotch pine is a concern.

TMS to evaluate. Specs:

Next Step Treatments:

Acceptable planted red pine/ oak

Regen:

Other Old next step comments:

Comment:

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a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
29	61041029-Cut	2.6 42	29 - Mixed Upland Conifers	Poletimber Well	43	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Proposal

**Habitat Cut: No Site Condition:** 

Prescription Harvest all scotch pine to remove seed source from this area.

Specs:

SitePrep, Trenching; Planting, Initial Plant Next Step

**Treatments:** 

Acceptable red pine white pine, oak, northern hardwoods

Regen: Other

Scotch pine is very invasive in this area and has seeded in adjacent stands. Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

4211 - Planted 31 61041031-Cut 3.5 42200 - Natural Sawtimber 60 81-110 Harvest Clearcut with Even-Aged Draft Proposal Red Pine

White Pine Medium Retention

**Habitat Cut: No** Site Condition:

Prescription Harvest weeviled white pine. Retain some widely scattered well formed oak and pine then trench and plant stand to red pine. Treat with stand

Specs:

Next Step SitePrep. Trenching: Planting, Initial Plant

**Treatments:** 

Acceptable red pine, white pine, oak, northern hardwoods

Regen:

If stand 36 is not treated delete this treatment. Access is needed across a small piece of private property(hops farm) at the end of Arnold Road. Other

Old next step comments: Comment:

**Proposed Start Date:** 10/1 /2016

61041036-Cut

**Habitat Cut: No** 

42110 - Planted Even-Aged Draft Proposal Jack Pine Retention Red Pine Well

42120 - Planted

Harvest **Site Condition:** 

Clearcut with

Prescription Retain any well formed oak if found in stand. Consider retaining some of the red pine. Heavy snow damage in stand and access is difficult. Chip harvesting would be desirable if stand could be accessed with chipping job. Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

40.6

**Treatments:** 

Acceptable red pine, jack pine, white pine

Regen:

**Other** Need to work out access across small piece of private land (hops farm) Old next step comments:

Poletimber

57

51-80

Comment:

**Proposed Start Date:** 10/1 /2016

61041044-Cut 3.5 42201 - Natural Sawtimber 49 4211 - Planted Even-Aged Draft Proposal 51-80 Harvest Clearcut with Retention Red Pine

White Pine, Mixed Medium

Deciduous

**Habitat Cut: No Site Condition:** 

Prescription Harvest this poorly formed weeviled white pine to re-start stand. Retain a few well formed pine and harvest remaining stems to prepare site fro Specs:

trenching and planting. Harvest with stands 31 and 36.

Next Step SitePrep, Trenching; Planting, Initial Plant

**Treatments:** 

Acceptable red pine, white pine, oak, northern hardwoods.

Regen:

Other Old next step comments:

Comment:

Traverse City Mgt. Unit

Report 4 -- Treatments

Compartment: 41 Year of Entry: 2017

Red Pine

**Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 61041050-Cut 42110 - Planted Poletimber 42110 - Planted Even-Aged Draft Proposal 50 8.0 57 171-Harvest Crown Thinning

200

**Site Condition: Habitat Cut: No** 

Prescription Reduce basal area to 120. Remove suppressed and poorly formed trees.

Well

Red Pine

Specs:

s

t а

Next Step **Treatments:** 

Acceptable

Regen:

Other Third row thinned 2010. Mark within rows. Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Even-Aged Draft Proposal 59 61041059-Cut 9.1 4131 - Aspen, Oak Sawtimber 75 51-80 Harvest Clearcut with 413 - Aspen Retention Well

Site Condition: Age-Class or Site Quality **Habitat Cut: No** 

Prescription Retain some well formed oak, maple and white pine for mast and seed production. Final harvest remaining stems, Access is difficult.

Specs:

Next Step **Treatments:** 

Acceptable aspen, oak, white pine, red pine, jack pine, maple

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

61041061-Cut 27.2 42120 - Planted Poletimber 56 51-80 Harvest Clearcut with 4211 - Planted Even-Aged Draft Proposal Jack Pine \/\ell Retention Red Pine

Site Condition:

Prescription Stand has heavy storm damage. Access is difficult. Attempt to get stand chip harvested to prep site for trenching and planting to red pine. Specs: Buffer small low area. Retain well formed oak, white pine and maple.

SitePrep, Trenching; Planting, Initial Plant Next Step

**Treatments:** 

**Habitat Cut: No** 

Acceptable red pine, jack pine, maple, oak

Regen:

Other Access needs to be obtained across a small piece of private ground (hops farm) to work from north. Part of stand could also be worked from

south. Old next step comments: Comment:

Proposed Start Date: 10/1 /2016

61041074-NF 6.0 3105 - Mixed Nonstocked Unspec NonForestMgt **Brush Cutting** 310 -Proposal ified Herbaceous

Upland Herbaceous

Openland

**Site Condition:** 

Prescription This opening had a lot of spotted knapweed. Remove exotics and plant to annual rye for several years and then convert to an appropriate perennial pasture mix (i.e. clover/alfalfa) or native mix if soils will allow. Periodic maintenance such as mowing, fertilization, reseeding, burning, Specs:

and/or removal of woody encroachment.

Next Step **Treatments:** 

**Habitat Cut: Yes** 

<u>Acceptable</u>

Regen:

Comment:

**Other** Old next step comments:

S

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
96	61041096-Cut	19.8	4119 - Mixed Northern Hardwoods	Sawtimber Well	102	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Draft Proposal

**Habitat Cut: No Site Condition:** 

Prescription Mark stand to remove some of the mature hardwoods and red oak. Remove all remaining ash and most beech. Create larger canopy gaps to try to encourage northern hardwood regeneration.

Specs:

Next Step **Treatments:** 

Acceptable Maple. basswood, birch, hemlock, oak, white pine, red pine

Regen:

Other Heavy ironwood and beech understory is a concern. Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Even-Aged Draft Proposal 103 61041103-Cut 11.9 4199 - Other Mixed Poletimber 111-Harvest Clearcut with 4319 - Mixed

**Upland Deciduous** Retention **Upland Forest** Well 140

**Habitat Cut: No** Site Condition: Age-Class or Site Quality

Prescription Retain some well formed oak and northern hardwoods for mast and seed production. Retain all hemlock. Harvest remaining stems to 2"dbh to

Specs: regenerate stand

Next Step **Treatments:** 

Acceptable aspen, oak, maple, cherry, basswood, hemlock, white pine, red pine,

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

119 61041119-Cut 45.8 4131 - Aspen, Oak Poletimber 51 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Draft Proposal

\/\ell Retention

**Habitat Cut: No Site Condition:** 

Prescription retain some well formed oak, northern hardwoods and pine and harvest remaining stems to regenerate stand. Younger age in south part of

Specs: stand. Follow older age class with treatment boundary.

Next Step **Treatments:** 

Acceptable aspen, oak, maple, white pine, red pine, basswood. birch.

Regen:

Other Old roadbed parallels Broomhead Road. Consider retention strip along Broomhead for visual buffer as possible. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

127 61041127-Cut 12.3 42110 - Planted Poletimber 57 111-Harvest Clearcut with 4211 - Planted Even-Aged Draft Proposal Red Pine

140 Red Pine Well Retention

**Habitat Cut: No Site Condition:** 

Prescription Harvest down to 2" and chip tops to prep site for planting. Retain some well formed pine and northern hardwoods. Oak wilt pocket in stand so

Specs: eliminate adjacent red oak.

SitePrep, Trenching; Planting, Initial Plant Next Step

Treatments:

Acceptable planted red pine, white pine, northern hardwood mix, oak.

Regen:

Other Old next step comments:

Comment:

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 41 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Method Name CoverType Density Age Range Type Objective Structure **Status** d Natural Regen 128 61041128-42220 - Natural Sapling 412 - Oak Types Even-Aged Completed -11.0 6 Immatu Monitoring Jack Pine Medium (Re-Inventory) Pending Edits Monitor **Site Condition: Habitat Cut: Yes** Prescription monitor Specs: Next Step **Treatments:** Acceptable oak type with other species to meet minimum stocking requirements for a fully stocked stand. Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 61041141-NF 18.2 4191 - Mixed 50 1-50 NonForestMgt **Brush Cutting** 3205 - Mixed Proposal Sawtimber **Upland Deciduous** Upland Shrub Poor with Conifer **Habitat Cut: Yes Site Condition:** Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. As needed, treat site to remove exotics. Then seed to site appropriate grasses for wildlife food and Specs: cover. Consider seeding in native grasses and forbs. Next Step Treatments: Acceptable Regen: Old next step comments: Other Comment: Proposed Start Date: 10/1 /2016 150 61041150-Cut 51.9 42110 - Planted Sawtimber 57 111-Harvest Clearcut with 4211 - Planted Even-Aged Draft Proposal Red Pine Well 140 Red Pine Retention **Site Condition: Habitat Cut: No** Prescription Harvest stand to re-plant. Retain patches on steep area such as the SE corner south of the road. Specs: Next Step SitePrep, Trenching; Planting, Initial Plant Treatments: Acceptable red pine, northern hardwoods, oak Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 61041151-Sapling 4211 - Planted 151 42221 - Natural Immatu SitePrep Roller Chopping Even-Aged Draft Proposal Prep Jack Pine, Mixed Medium re Red Pine Deciduous **Habitat Cut: Yes Site Condition:** Prescription Chop existing jack pine regeneration to prep site for trenching and planting. Specs:

Comment:

Next Step Treatments:

Regen:

Proposed Start Date: 10/1 /2016

Acceptable red pine, oak, northern hardwoods

TMS to evaluate Old next step comments:

Red Pine

Well

Compartment: 41

Red Pine

4211 - Planted

Year of Entry: 2017

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а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 61041154-Cut 42110 - Planted Poletimber 81-110 Clearcut with 4211 - Planted Even-Aged Draft Proposal 154 8.9 57

Harvest

Retention

Clearcut with

**Site Condition: Habitat Cut: No** 

Prescription Harvest red pine and re-plant with stand 151 if TMS decides it will be right to chop stand 151. If not do not treat this stand at this time. Retain

visual buffer along east side-roadway. Specs:

SitePrep, Trenching; Planting, Initial Plant Next Step

**Treatments:** 

Acceptable planted red pine.

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Even-Aged Draft Proposal 160 61041160-5.9 4310 - Pine, Oak Sapling **Immatu** SitePrep Roller Chopping 4211 - Planted Red Pine re

Poor Prep Mix

**Site Condition:** Prescription chop stand to prep site for trenching and planting. TMS to evaluate.

42110 - Planted

Poletimber

57

Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

**Treatments:** 

**Habitat Cut: Yes** 

Acceptable red pin, oak, northern hardwoods, white pine

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Even-Aged Draft Proposal 166 61041166-Cut 111-Red Pine Well 140 Retention Red Pine

Harvest

**Habitat Cut: No Site Condition:** 

22.1

Prescription Retain visual buffer along west side-roadway. Treat with north part of stand 168. Understory ironwood, beech, autumn olive and honeysuckle is

a concern if stand is not re-started. Specs:

SitePrep, Trenching; Planting, Initial Plant Next Step

Treatments:

Acceptable red pine

Regen:

**Other** Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

168 61041168-Cut 42110 - Planted 37.7 Sawtimber 57 Clearcut with 4211 - Planted Even-Aged Draft Proposal 111-Harvest Red Pine Well 140 Retention Red Pine

**Habitat Cut: No Site Condition:** 

Prescription and possible healthy red oak as found. Harvest north part of stand. Keep retention along west side-roadway. Harvest oak wilt pocket in south

Specs: part of treatment area. Replant with red pine

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

Acceptable red pine

Regen:

Other Undesirable understory may need to be controlled-ironwood, beech, autumn olive, honeysuckle. Old next step comments:

Comment:

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 41 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure Status d 176 61041176-11.3 42290 - Natural Sapling SitePrep 4211 - Planted Even-Aged Draft Proposal 5 Immatu Roller Chopping Mixed Pine Poor Red Pine Prep **Habitat Cut: Yes Site Condition:** Prescription Poor stocking after last harvest but heavy slash load. TMS to evaluate opportunities to reclaim site-chopping-burning, windrowing? Specs:

SitePrep, Trenching; Planting, Initial Plant Next Step

**Treatments:** 

Acceptable red pine, oak, white pine. maple

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

182 61041182-42260 - Natural SitePrep 4211 - Planted Even-Aged Draft Proposal 5.6 Sapling 10 Immatu Roller Chopping

Pine, Mixed Red Pine Prep Poor re

Deciduous

**Habitat Cut: Yes** Site Condition:

Prescription Chop site to eliminate scotch pine and other advanced regeneration.

Specs:

SitePrep, Trenching; Planting, Initial Plant Next Step

Treatments:

Acceptable red pine, white pine, oak, maple, basswood, aspen.

Regen:

**Other** Trench and plant after treatment. Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

17.4 4199 - Other Mixed Sawtimber 186 61041186-Cut 102 81-110 Harvest Single Tree 411 - Northern Even-Aged Draft Proposal Well Hardwood Selection

**Upland Deciduous** 

**Habitat Cut: No Site Condition:** 

Prescription Mark stand to remove some of the mature hardwoods and red oak. Remove all remaining ash and most beech. Create larger canopy gaps to Specs:

try to encourage northern hardwood regeneration.

Next Step Treatments:

Acceptable maple, oak, cherry, birch, aspen, red pine, white pine. basswood.

Regen: Other

Heavy beech and ironwood sub canopy is a concern Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

190 61041190-Cut 39.5 42110 - Planted Poletimber 171-Harvest Clearcut with 4211 - Planted Even-Aged Draft Proposal

Red Pine Red Pine Well 200 Retention

**Habitat Cut: No Site Condition:** 

Prescription Retain some pine patches along roadways at good spots for visual management. Final harvest remaining stems to restart stand. Require

Specs: chipping of tops.

Next Step SitePrep, Trenching; Planting, Initial Plant

**Treatments:** 

Acceptable red pine, white pine

Regen:

Other Old next step comments:

Comment:

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 41 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d Sawtimber 61041195-Cut 5.0 42110 - Planted 81-110 Clearcut with 4211 - Planted Even-Aged Draft Proposal 195 56 Harvest Red Pine Well Retention Red Pine **Site Condition: Habitat Cut: No** Prescription Retain some well formed oak and northern hardwoods and final harvest red pine to re-plant stand. Treat only if TMS decides that stand 128 to south should be chopped and re-planted to red pine. If not, drop treatment and re-join stand to stand 111. Specs: SitePrep, Trenching; Planting, Initial Plant Next Step **Treatments:** Acceptable red pine, oak, northern hardwoods, white pine. Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 NF 61041003-6.7 4123 - Red Oak Sawtimber 97 51-80 NonForestMgt Herbaceous/Crop 3105 - Mixed Draft Field NonFor Medium /Grass Planting Upland Boundary Herbaceous **Habitat Cut: Yes Site Condition:** Prescription plant native herbaceous vegetation (grasses) in 3-4 acre degraded portion of opening. Specs: Next Step Treatments: Acceptable maintain as grass stand Regen: **Other** Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 Draft Field 38 NF 61041038-1.8 3102 - Grass Nonstocked NonForestMgt **Brush Cutting** 3101 - Poverty Grass, Cladonia Boundary NonFor **Habitat Cut: Yes Site Condition:** Prescription Maintain this opening by handfelling pine encroachment. Specs: Next Step Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 12/30/1899

NF 61041049-6.2 31022 - Warm Nonstocked NonForestMat Other - Specify 3103 - Rubus-Draft Field Season Grass Boundary NonFor Fern

**Site Condition: Habitat Cut: Yes** 

Prescription Possible handfell of smaller trees by WLD. Promote existing LBS by mowing or burning.

Specs:

Next Step

**Treatments:** 

Acceptable Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 12/30/1899

S t	Traver	se City Mgt. Unit		Re	port 4	Treatmer	nts	Compart Year of I	ment: 41 Entry: 2017	DNR DNR
a n Treatme d Name	nt Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
83 NF_61041 NonFo		3105 - Mixed Upland Herbaceous	Nonstocke	d		NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary
Habitat Cut: \ Prescription Ha Specs:		Site Condition e encroachment - B.						Helbaccous		
Next Step Treatments:										
Acceptable Regen:										
Other Comment:										
Proposed Start	<u>Date:</u> 12/3	30/1899								
86 NF_61041 Plant		3104 - Degraded	Nonstocke	d		Planting	Initial Plant	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
		Site Condition Recommend using a BJR, WLD.	_	anding	during ad	jacent timber sa	les. Plant to FMF	M specifications w	hen adjacent t	imber sales
Next Step Treatments:										
Acceptable Regen:										
Other Comment:										
Proposed Start		30/1899								
90 NF_61041 NonFo		3105 - Mixed Upland Herbaceous	Nonstocke	d		NonForestMgt	Brush Cutting	3105 - Mixed Upland Herbaceous		Draft Field Boundary
Habitat Cut: \ Prescription Ha Specs:		Site Condition ching pine.	<u>I</u>							
Next Step Treatments:										
Acceptable Regen:										
Other Comment:										
Proposed Start	<u>Date:</u> 12/3	30/1899								
98 NF_61041 NonFo		3104 - Degraded	Nonstocke	d		NonForestMgt	Other - Specify	31021 - Cool Season Grass		Draft Field Boundary
Habitat Cut: \ Prescription He Specs:		Site Condition nting to a perennial	_	WLD						
Next Step Treatments:										
Acceptable Regen:										
Other Comment:										

Proposed Start Date: 12/30/1899

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 41 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 135 NF 61041135-3104 - Degraded Clearcut 42100 - Planted Even-Aged Draft Field 1.6 Nonstocked Unspec Harvest ified White Pine Boundary **Plant Habitat Cut: Yes Site Condition:** Prescription WLD will plant white pine within this degraded opening. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 12/30/1899 144 NF 61041144-2.9 3301 - Low Density Nonstocked Crown Thinning 3301 - Low Draft Field Harvest Deciduous Trees Density Boundary NonFor **Deciduous Trees Habitat Cut: Yes Site Condition:** Prescription This stand has indications of being a dumping ground. Restrict access by blocking two tracks. Possibly use stumps from adjacent timber Specs: harvest or cedar posts. - BJR Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 12/30/1899 Draft Field 149 NF 61041149-1.1 3301 - Low Density Nonstocked Harvest Crown Thinning 3301 - Low Deciduous Trees Boundary Density NonFor Deciduous Trees **Habitat Cut: Yes Site Condition: Prescription** Specs: Restrict access by blocking two tracks with cedar posts. - BJR Next Step **Treatments:** <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 12/30/1899 158 NF 61041158-1.2 6233 - Wet Meadow Nonstocked 6233 - Wet Draft Field Harvest Crown Thinning Meadow Boundary NonFor **Habitat Cut: Yes Site Condition:** Prescription -- David Johnson: 12/07/2005 comments: Specs: Evidence of mud bogging. WLD will restrict access to this stand. Next Step Treatments: <u>Acceptable</u> Regen: Other Comment:

12/30/1899

**Proposed Start Date:** 

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 41 s Year of Entry: 2017 t а **Cover Type Treatment** Acres Stand Size Stand BA **Treatment Treatment** Age **Approval** n Objective Method Status d Name CoverType Density Age Range Type Structure 175 NF\_61041175-3.3 3301 - Low Density Nonstocked NonForestMgt 31021 - Cool Draft Field **Brush Cutting** Deciduous Trees Season Grass NonFor Boundary **Habitat Cut: Yes Site Condition:** Prescription -- David Johnson: 12/07/2005 comments: like to save red pine Specs: Maintain this opening by handfelling red pine seedling encroachment and maybe some locust seedlings. Next Step Treatments: Acceptable Regen: <u>Other</u>

Total Treatment 555.0 Acreage Proposed:

12/30/1899

Comment:

**Proposed Start Date:** 

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Compartment: 41 Year of Entry: 2017 Pat Ruppen : Examiner

#### **Dominant Site Conditions**

	2G	3G	3J	4A	5B	5C
Aspen		3	20		1	125
Cedar						
Herbaceous Openland					2	
Jack Pine						
Low-Density Trees						
Lowland Aspen/Balsam Poplar						
Lowland Conifers	47		18			
Lowland Shrub						
Marsh						
Mixed Upland Deciduous						182
Natural Mixed Pines				26		83
Northern Hardwood					31	30
Oak				10		50
Planted Mixed Pines						33
Red Pine						
Treed Bog						
Upland Conifers						
Upland Mixed Forest						12
Urban						
White Pine						0
Total Forested Acres	47	3	38	36	35	516
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.

Unavailable 2F: Too steep 4 3J: Water quality / Unspecified Unspec	Unavailable	2F: Too steep	4	3J: Water quality /	Unspecified	I lean a sitia d	
Comments:					Onopooliica	Unspecilled	Unspecified
Steep bowl around small seasonal wet/low							

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2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	20	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Mature aspen - fin	al harvest					
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Mature Aspen - Oa	ak , final harvest - scattered Oak	residu	al for mast			
5	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Selection harvest I	owering ba to 80sq.ft straight	forward	d hdwd mgt.			
6	Unavailable	2F: Too steep	7	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
	Comments: Steep slope along	lowland area.					
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Traverse City Mgt. Unit

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Available	5C: Delay treatment for age/size class diversity or exceptional site quality	81	Unspecified	Unspecified	Unspecified	Unspecified
		acceptabl	e. Stand had been high	n-graded by previous owne	r. Let stand put on more v	olume and look a
Unavailable	2F: Too steep	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Available	5B: Maintain for regeneration purposes	35	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	3G: Other Influence zones - See comments	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	2F: Too steep	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	2F: Too steep	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
	Comments: Stand has variable lext entry for thinn Unavailable Comments:  Unavailable Comments:  Unavailable Comments:  Unavailable Comments:  Unavailable Comments:  Unavailable Comments:	age/size class diversity or exceptional site quality  Comments: Stand has variable stocking but overall, stocking is ext entry for thinning or regeneration harvest.  Unavailable 2F: Too steep  Comments:  Unavailable 5B: Maintain for regeneration purposes  Comments:  Unavailable 3G: Other Influence zones - See comments  Comments:  Unavailable 2F: Too steep  Comments:  Unavailable 2F: Too steep  Comments:  Unavailable 2F: Too steep	age/size class diversity or exceptional site quality  Comments: Stand has variable stocking but overall, stocking is acceptable ext entry for thinning or regeneration harvest.  Unavailable 2F: Too steep 2  Comments:  Unavailable 5B: Maintain for regeneration purposes  Comments:  Unavailable 3G: Other Influence 3 zones - See comments  Comments:  Unavailable 2F: Too steep 7  Comments:  Unavailable 2F: Too steep 7  Comments:	age/size class diversity or exceptional site quality  Comments: Stand has variable stocking but overall, stocking is acceptable. Stand had been highext entry for thinning or regeneration harvest.  Unavailable 2F: Too steep 2 Unspecified  Comments:  Unavailable 2F: Too steep 3 Unspecified  Comments:  Available 5B: Maintain for 35 Unspecified  Comments:  Unavailable 3G: Other Influence 3 Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified  Comments:	age/size class diversity or exceptional site quality  Comments:  Comments:  Catand has variable stocking but overall, stocking is acceptable. Stand had been high-graded by previous owners ext entry for thinning or regeneration harvest.  Unavailable 2F: Too steep 2 Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 3 Unspecified Unspecified  Comments:  Available 5B: Maintain for 35 Unspecified Unspecified  Comments:  Unavailable 3G: Other Influence 3 Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified  Comments:	age/size class diversity or exceptional site quality  Comments:  Stand has variable stocking but overall, stocking is acceptable. Stand had been high-graded by previous owner. Let stand put on more viext entry for thinning or regeneration harvest.  Unavailable 2F: Too steep 2 Unspecified Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 3 Unspecified Unspecified Unspecified  Comments:  Available 5B: Maintain for regeneration purposes  Comments:  Unavailable 3G: Other Influence 3 Unspecified Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified Unspecified Unspecified  Comments:  Unavailable 2F: Too steep 7 Unspecified Unspecified Unspecified Unspecified  Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified  Unavailable 2F: Too steep 10 Unspecified Unspecified Unspecified Unspecified

Traverse City Mgt. Unit

Compartment: 41 Year of Entry: 2017 Pat Ruppen : Examiner

16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	18	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: leadwater area of	small stream					
18	Available	4A: No Markets Available for these Forest Products	36	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Remnant Christma	as tree fields. low stocking and v	olume. 1	Not commercial			
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
21	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Traverse City Mgt. Unit

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22	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	31	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
23	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
24	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
26	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	43	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
27	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

Traverse City Mgt. Unit
Pat Ruppen: Examiner

29	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	54	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
30	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
34	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
35	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	40	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

Traverse City Mgt. Unit

Pat Ruppen : Examiner

36	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
37	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
38	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
39	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
40	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
41	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

Report 5 – Site	Conditions
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Traverse City Mgt. Unit

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42	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
43	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

Mgt. Unit

Compartment: #Type! Year of Entry:



#### Report 6 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Traverse City Mgt. Unit

Compartment: 41

Year of Entry 2017



### Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservation 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	es to persist from year to year. Suitable by 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.	es (e.g., slimy sculpin) to persist from se 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 effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well

S t	Traverse City	y Mgt. Unit		Report 8	- Forested	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Poletimber Medium	4.6	50	51-80	
2	4131 - Aspen, Oak	Poletimber Well	28.2	51	81-110	
4	4199 - Other Mixed Upland Deciduous	Sawtimber Well	9.2	75	81-110	
5	4131 - Aspen, Oak	Sawtimber Well	20.0	78	81-110	Creek runs along west side of stand. Small Oak log pocket in NE corner of stand
6	42110 - Planted Red Pine	Poletimber Well	15.4	56	81-110	
7	4123 - Red Oak	Sawtimber Medium	7.5	97	51-80	2015: TS# 058-13. Cut orange marked red oak. Removed some of the large wolfy oak. Harvested Winter 2014-15.
8	4119 - Mixed Northern Hardwoods	Sawtimber Well	10.7	98	81-110	
9	42120 - Planted Jack Pine	Poletimber Well	3.0	57	1-50	2015: Heavy storm damage and mortality. Mature aspen on NE corner. Looks like retention from the harvest of stand 184. Aspen sprouting along edges of this stand from that harvest as well. Not much volume left but harvest if the opportunity comes up with a nearby treatment. Otherwise leave for bedding cover and travel corridor. 2005:health stand with very little mortality-should add growth and be ready for harvest in next inventory 2015
10	42120 - Planted Jack Pine	Poletimber Medium	16.7	57	1-50	
11	4123 - Red Oak	Sawtimber Well	7.0	86	51-80	
16	42220 - Natural Jack Pine	Sapling Poor	28.5	6	Immature	
17	42260 - Natural Pine, Mixed Deciduous	Sapling Poor	17.8	15	Immature	
18	42130 - Planted Scotch Pine	Poletimber Well	0.9	43	81-110	
19	4111 - S.Maple, Hard Mast Association	Poletimber Well	11.3	96	81-110	
20	4131 - Aspen, Oak	Poletimber Well	18.6	34	Unspecified	
21	4130 - Aspen	Poletimber Well	18.4	33	Unspecified	

S t				Report 8 – Forested Stands			Compartment: 41 Year of Entry: 2017	DNR DNR
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN .
22	42110 - Planted Red Pine	Poletimber Well	35.8	60	111-140			
24	42130 - Planted Scotch Pine	Poletimber Medium	1.6	43	81-110		Root collar weavil	
25	4123 - Red Oak	Poletimber Medium	10.0	55	51-80			
26	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	6.0	55	111-140			
27	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	51.9	50	111-140			
28	42290 - Natural Mixed Pine	Sapling Poor	8.1	15	Immature			
29	429 - Mixed Upland Conifers	Poletimber Well	3.8	43	111-140			
30	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	30.9	92	141-170			
31	42200 - Natural White Pine	Sawtimber Medium	3.5	60	81-110			
32	4130 - Aspen	Sapling Well	5.1	31	Unspecified			
34	6120 - Lowland Cedar	Poletimber Well	3.8	92	141-170			
35	42140 - Planted Mixed Pine	Poletimber Well	5.8	44	171-200			
36	42120 - Planted Jack Pine	Poletimber Well	40.6	57	51-80			
37	4130 - Aspen	Sapling Well	9.3	25	Immature	ŀ	Healthy aspen showing good growth	
39	6112 - Lowland Aspen	Poletimber Well	8.4	31	Unspecified			
40	42200 - Natural White Pine	Sawtimber Poor	7.4	55	1-50			
41	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	16.1	80	51-80			
43	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	82.2	100	81-110			

S t				Report 8	- Forested S	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
44	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Medium	3.5	49	51-80	
45	42110 - Planted Red Pine	Sawtimber Well	19.6	50	111-140	
46	4130 - Aspen	Sapling Well	11.7	25	Unspecified	
47	6120 - Lowland Cedar	Poletimber Well	48.9	106	111-140	
48	4119 - Mixed Northern Hardwoods	Sawtimber Well	4.4	76	81-110	
50	42110 - Planted Red Pine	Poletimber Well	8.0	57	171-200	
52	4199 - Other Mixed	Sawtimber	8.5	76	81-110	Scattered Hemlock and White Pine
	Upland Deciduous	Well				Sugar Maple and Oak along south side of stand
53	42110 - Planted Red Pine	Poletimber Well	78.2	57	141-170	
54	4131 - Aspen, Oak	Poletimber Well	43.4	64	81-110	Rolling to steep terrain
55	42130 - Planted Scotch Pine	Poletimber Well	20.1	39	1-50	2015: Could try to sell this as discounted chip job. Barely merchantable. Would likely need to burn or spray to eliminate scotch pine before replanting. This is heavily used by deer for cover and forage. May want to plant jp or spruce.  2005:Diseased Scotch and Austrian Pine
57	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	22.4	74	141-170	
58	42250 - Pine, Oak	Sawtimber Poor	53.6	91	1-50	
59	4131 - Aspen, Oak	Sawtimber Well	9.1	75	51-80	
61	42120 - Planted Jack Pine	Poletimber Well	27.2	56	51-80	
62	4130 - Aspen	Sawtimber Well	11.4	75	81-110	Small pot hole marsh along north border
64	4123 - Red Oak	Poletimber Medium	11.8	50	1-50	Oak filling in old farm field
65	4123 - Red Oak	Sawtimber Well	9.6	99	51-80	

S t	Traverse City Mgt. Unit S			Report 8	<ul><li>Forested</li></ul>	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	42120 - Planted Jack Pine	Poletimber Well	4.1	56	81-110	
67	42220 - Natural Jack Pine	Sapling Medium	19.0	15	Immature	
68	42110 - Planted Red Pine	Poletimber Well	14.0	57	111-140	2015: Good height 5-6 stick. Stocking is a bit low at this point. Stems have good form. Pole potential in the future if this stand is allowed to growbut if we need to re-start some of this age class this might be a good candidate as the stocking is already a bit low. 2005:4 stick - 63 feet total.
69	4110 - Sugar Maple Association	Sawtimber Well	24.5	90	51-80	rolling terrain
70	4310 - Pine, Oak Mix	Sawtimber Well	11.9	91	141-170	
71	4123 - Red Oak	Poletimber Well	29.7	99	81-110	
72	42110 - Planted Red Pine	Poletimber Well	37.4	56	111-140	
73	4119 - Mixed Northern Hardwoods	Sawtimber Well	35.9	99	81-110	
<b>75</b>	42110 - Planted Red Pine	Sapling Well	35.7	16	Immature	
76	42110 - Planted Red Pine	Sawtimber Well	88.6	56	111-140	
80	42110 - Planted Red Pine	Sawtimber Well	15.9	57	111-140	
82	42110 - Planted Red Pine	Sawtimber Well	17.6	63	81-110	
84	42220 - Natural Jack Pine	Sapling Medium	42.5	10	Immature	
85	42110 - Planted Red Pine	Poletimber Well	33.1	56	111-140	
87	4130 - Aspen	Sawtimber Well	7.4	76	81-110	Scattered Hemlock and White Pine
88	42290 - Natural Mixed Pine	Sapling Medium	9.3	17	Immature	
89	42110 - Planted Red Pine	Poletimber Well	67.9	56	111-140	

S t				Report 8	B – Forested	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
91	4131 - Aspen, Oak	Poletimber Well	2.5	70	111-140	
92	42140 - Planted Mixed Pine	Sapling Well	13.7	17	Immature	
93	4110 - Sugar Maple Association	Sawtimber Well	5.5	96	111-140	2015: Large open grown hardwoods and oak with Ironwood, oak and maple poles grown in to canopy in old canopy gaps. Steep east aspect slope - inoperable. Factor limit
94	42110 - Planted Red Pine	Poletimber Well	24.5	57	81-110	
96	4119 - Mixed Northern Hardwoods	Sawtimber Well	19.8	102	111-140	
100	4130 - Aspen	Sapling Well	10.3	25	Unspecified	
102	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	18.3	102	111-140	Small creek begins in stand. Some blow-down areas along creek
103	4199 - Other Mixed Upland Deciduous	Poletimber Well	11.9	83	111-140	aspen is mature but could hold. North part is heavier to red oak and some hardwood mix on west edge. Enough aspen mixed in that it would regenerate parts of this stand well. May also be able to get some oak and maple stump sprouts. May be desirable to do a small clear cut with oak and maple retention. TS# 031-90. part of log sale-cut mostly red oak. TCR 5/91. Stand may be influenced by timber sale in 1965-Cut aspen to release small supressed n. hardwoods. 2005:Small aspen clone along south end of stand
105	4311 - Pine, Aspen Mix	Poletimber Medium	7.7	55	1-50	2015: Red oak poles in east side. Bushy open grown white pine getting large diameter. Would be desirable to get his cleared and planted. Not much understory growing in. May be depleted soil in old field. Stand on side slope but not real steep. May be able to harvest this with stand 111 when it is final harvested. 2005:Small grassy opening on ridge in N. part of stand
106	4119 - Mixed Northern Hardwoods	Sawtimber Well	30.6	102	81-110	
108	4111 - S.Maple, Hard Mast Association	Sawtimber Well	30.4	100	111-140	
109	4130 - Aspen	Sapling Well	15.9	25	Unspecified	
110	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	7.4	81	51-80	2015: Jack Pine is falling out of stand and stand is converting to white pine/ mixed northern hardwood and oak. Not much volume left in the jp. Removing would damage new stand growing in. Let stand convert. Strip of White Pine Sawtimber (windbreak) along east side of stand. Small area on west side of stand mix of oak, rp, wp, and maple.

s t				Report 8	- Forested	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
111	42110 - Planted Red Pine	Sawtimber Well	21.5	56	111-140	
112	4139 - Aspen, Mixed Deciduous	Sawtimber Well	2.6	90	81-110	
113	4121 - Oak, Aspen	Sawtimber Well	1.8	40	51-80	
114	4111 - S.Maple, Hard Mast Association	Poletimber Well	19.1	98	81-110	
118	4199 - Other Mixed Upland Deciduous	Poletimber Well	1.2	75	51-80	
119	4131 - Aspen, Oak	Poletimber Well	74.1	51	81-110	
120	4110 - Sugar Maple Association	Sawtimber Well	9.9	91	81-110	
122	4122 - Oak, Pine	Sawtimber Poor	8.8	80	1-50	
125	4112 - Maple, Beech, Cherry Association	Sawtimber Well	2.3	90	51-80	
126	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	40.3	51	111-140	2015: Timber sale in this area 1964-65. Cut all aspen and red maple in stands 2 cd/acre of more and oak 14" of less. A good bit of this stand is too steep to treat. Aspen could get better if allowed to grow in. Aspen size is variable. Some is I/p and some p/I. Looks like red oak was retained in last harvest and some younger aged pine. Pine looks natural? Blue line on south end that crosses power line. Not sure what that is. Scattered Pine throughout stand but can be in heavy pockets
127	42110 - Planted Red Pine	Poletimber Well	41.2	57	111-140	
128	42220 - Natural Jack Pine	Sapling Medium	11.0	6	Immature	
129	4130 - Aspen	Poletimber Well	20.1	40	51-80	
130	4130 - Aspen	Sapling Well	20.1	26	Immature	
131	4130 - Aspen	Poletimber Well	10.1	41	81-110	
133	4111 - S.Maple, Hard Mast Association	Sawtimber Well	6.3	90	111-140	low quality hardwood stand. Not many crop trees. Near houses and part of stand north of road has steep unworkable slope.  Not commercial.

S t	Traverse City Mgt. Unit			Report 8	- Forested	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
134	4111 - S.Maple, Hard Mast Association	Sawtimber Well	20.9	96	51-80	2015: Good bit of large dead red oak. Possible oak wilt but looks more like decline. Stocking is not high. Sugar maple stems are fair-good. Good bit of ash but much is dead. Steep in spots. Good height on stems. Could get dead oak and ash and mark for CTR. Stocking is already low. Not much volumemay not be commercially economical. Evaluate oak wilt risk with forest health tech and salvage red oak if needed. 2005: Some die-off around old landing Oak, Basswood. Old top pile still on landing.
136	4111 - S.Maple, Hard Mast Association	Sawtimber Well	115.1	90	81-110	
137	4130 - Aspen	Poletimber Well	6.8	25	Unspecified	
139	4310 - Pine, Oak Mix	Sapling Medium	4.4	17	Immature	
140	4310 - Pine, Oak Mix	Sawtimber Well	8.8	50	81-110	2015: Dominant age 50 but older open grown red oak, white pine, red maple, ash with aspen wp, ro, rm grown in (50 age class) Let stand develop. Stocking is not too high. Hilly ground. 2005:White Pine weaviled but seems to be nursing oak and aspen along - straight and clean boles
141	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	18.2	50	1-50	2015: Was non forested stand but changed to forested-low stocking. Pockets of forested amoung open ground. 2005 WLD: Elm, basswood, oak, maple, black cherry. Ground cover is patches of bracken fern, with cool summer grasses. areas of spotted knapweed. Autumn olive and juneberry underneath trees. A few witch-hazel. A little bit of junk.
142	4130 - Aspen	Poletimber Well	19.4	26	81-110	Stand is well stocked. Self thinning aspen. Portion of old Twp dump along NE side of stand
143	4111 - S.Maple, Hard Mast Association	Sawtimber Well	32.8	96	51-80	
145	4130 - Aspen	Poletimber Well	7.6	25	Unspecified	
146	4199 - Other Mixed Upland Deciduous	Sawtimber Well	27.6	79	111-140	
147	4119 - Mixed Northern Hardwoods	Sawtimber Well	4.9	90	111-140	Small stand with lower quality hardwoods. Red oak is decent quality and looks healthy. Let grow in. Does not seem to be enough for a commercial harvest. Old Twp dump site
148	4110 - Sugar Maple Association	Sawtimber Poor	5.5	96	1-50	
150	42110 - Planted Red Pine	Sawtimber Well	51.9	57	111-140	
151	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	14.0	7	Immature	

S t	Traverse City Mgt. Unit			Report 8	<ul><li>Forested</li></ul>	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
152	42110 - Planted Red Pine	Sawtimber Well	18.1	57	81-110	2015: jp mixed with rp in west strip. This jp is falling out and this part of stand has a lot of autumn olive growing in. This stand should be harvested and re-started if the alternate jp strips can be chopped. Otherwise, keep this stand until jp in alternate strips matures and the harvest all.
153	42110 - Planted Red Pine	Sawtimber Well	33.5	56	111-140	
154	42110 - Planted Red Pine	Poletimber Well	8.9	57	81-110	
155	42220 - Natural Jack Pine	Sapling Well	9.4	19	Immature	
159	4199 - Other Mixed Upland Deciduous	Sawtimber Well	4.8	75	81-110	
160	4310 - Pine, Oak Mix	Sapling Poor	5.9	7	Immature	
161	4111 - S.Maple, Hard Mast Association	Sawtimber Poor	4.9	60	1-50	2015: Moved to forested stand. Open grown maple and oak with some maple and oak poles and red and white pine filling in. Various ages as old field has succeeded. West 1/3 is still open herbaceous. 2005: West 1/2 is mixed upland herbaceous/cool summer grasses. East 1/2 is a sugar maple stand with pine saplings and maple seedlings underneath. Stand as a whole is a low density deciduous tree, even though there could be two stand here. A couple apple trees. Unlisted is hawkweed.
162	4111 - S.Maple, Hard Mast Association	Sawtimber Well	15.0	91	81-110	Has been thinned in prior entry. Some old orange marked still in stand. Stocking is fine. Let grow in.
164	4111 - S.Maple, Hard Mast Association	Sawtimber Well	129.0	105	51-80	
165	4199 - Other Mixed Upland Deciduous	Sawtimber Well	6.1	70	111-140	
166	42110 - Planted Red Pine	Poletimber Well	22.1	57	111-140	
168	42110 - Planted Red Pine	Sawtimber Well	72.5	57	111-140	
169	4110 - Sugar Maple Association	Sawtimber Well	11.4	79	51-80	
170	4111 - S.Maple, Hard Mast Association	Sawtimber Well	47.1	102	81-110	

S t	Traverse City Mgt. Unit			Report 8	- Forested	Stands Compartment: 41 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
171	4139 - Aspen, Mixed Deciduous	Sapling Medium	31.6	16	Immature	2015: TS# 019-97. Cut to 2" but no hemlock or red pine. TCR 11/98. Scattered Red Pine retention L-XL. Regeneration is a bit patchy but has filled in pretty well. Some areas are heavier to rm sprouts. 2005:Stand received heavy deer browse in south central part - growth and stems /acre are less
173	42110 - Planted Red Pine	Sawtimber Well	60.1	57	111-140	
174	4111 - S.Maple, Hard Mast Association	Sawtimber Well	1.8	92	111-140	Small stand could be treated by small sale receipt
176	42290 - Natural Mixed Pine	Sapling Poor	11.3	5	Immature	
177	4123 - Red Oak	Sawtimber Well	4.8	100	81-110	
178	4139 - Aspen, Mixed Deciduous	Poletimber Well	21.9	46	81-110	2015:Looks like the white and red pine and some oak was left when this stand was clear-cut in 1969. Cut all merchantable aspen in clones 2 acres or more and maple and oak only within clones. Most oak in stand is in younger age from sprouts after last harvest. 2005: Good mixed stand with good quality oak.  Good mixed stand. Red oak looks healthy.
179	4123 - Red Oak	Poletimber Well	3.5	76	51-80	Scattered Hemlock and White Pine Sugar Maple and Oak along south side of stand
180	4130 - Aspen	Sapling Poor	17.4	4	Immature	
181	42200 - Natural White Pine	Sawtimber Poor	18.9	70	1-50	
182	42260 - Natural Pine, Mixed Deciduous	Sapling Poor	5.6	10	Immature	2015: North part of opening changed to forested stand. Mix of scotch pine, white pine, cherry, aspen with scattered log sized red oak. 2005:North lobe is growing in. South portion is more open with pine regeneration.
183	4199 - Other Mixed Upland Deciduous	Sawtimber Well	4.6	78	81-110	
184	4130 - Aspen	Sapling Medium	32.7	4	Immature	Filling in after last harvest. Regeneration is a little patchy. More aspen on slopes and heavier to rm and cherry in lower parts.
185	4130 - Aspen	Sapling Poor	1.0	10	1-50	Dead oak - possible oak wilt
186	4199 - Other Mixed Upland Deciduous	Sawtimber Well	17.4	102	81-110	
188	4111 - S.Maple, Hard Mast Association	Sawtimber Well	19.8	105	81-110	

S t a n d	Traverse City		Report 8	- Forested Stands	Compartment: 41 Year of Entry: 2017	DNR DNR	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN .
189	4311 - Pine, Aspen Mix	Poletimber Well	7.7	25	51-80		
190	42110 - Planted Red Pine	Poletimber Well	39.5	56	171-200		
191	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	6.8	60	111-140		
192	4111 - S.Maple, Hard Mast Association	Sawtimber Well	8.9	99	81-110		
194	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.2	96	81-110		
195	42110 - Planted Red Pine	Sawtimber Well	5.0	56	81-110		
196	4130 - Aspen	Sapling Poor	0.0	4	Immature		



Stand	Cover Type	Acres	Managed Site	General Comments:
3	3104 - Degraded	6.7	No	Mostly degraded with spotted knapweed. Evidence of a very old timber landing. Includes a lobe with bracken fern. I don't know what WLD can do here. A little bit of aspen encroachment west side.
12	3105 - Mixed Upland Herbaceous	2.1	No	Would like to take structure down. Maintain pond area. Possible area for rye? Two cabins, a pond, and a large oak. A few apple trees and a small spot of aspen encroachment.
13	3103 - Rubus-Fern	5.0	No	Raccoon damage to juneberry. Nice opening. Bracken fern dominated (pink on imagery). Plenty of poverty grass in-between (blue). One juneberry and one paper birch. A few pine saplings along edge.
14	3104 - Degraded	1.2	No	Cabin with pond. Borderline degraded. Remove structures. Possibly plant rye here and into portion of adjacent stand?
15	3103 - Rubus-Fern	4.1	No	On top of hill. A few large maples along perimeter. A dry site. Log oaks on north side.
23	3303 - Mixed Low Density Trees	7.7		North lobe is growing in. South portion is more open with pine regeneration.
33	6233 - Wet Meadow	2.0	No	Center is bulrushes and grasses - wet meadow. Probably seasonally wet. Perimeter is all willow with a few dogwood. Some spotted knapweed around perimeter also. Found dead trees (snags) along east side.
38	3102 - Grass	1.8	No	Possibly an old homestead site. A couple apple trees on their last leg. One large walnut with several pole walnut or ash trees. Mixed grasses with spotted knapweed. Cut out pine encroachment. Grasses are mixture of warm and cool summer varieties. Some spots of cladonia.
42	6224 - Treed Bog	14.9	No	Awesome treed bog. Leatherleaf, michigan holly, and blueberry, with tamarack and white pine. A few viburnum sp. along perimeter.
49	31022 - Warm Season Grass	6.4	No	Possibly cut and chip white pine along the north side with adjacent aspen cut. OR handfell a few of the smaller one. Grasses would benefit from a prescribed burn, but 6.2 acres is too small.
51	3105 - Mixed Upland Herbaceous	1.6	No	Old timber landing. Pine encroachment. Some pigweed(?). Mullein. Bracken fern. May want to cut out pine (20 minutes) or use as a future timber landing.
56	6220 - Alder/willow	1.7	No	Main part is all young willow. A little bit of tag alder, a patch of rubus, and upland deciduous (cherry/aspen) south portion.
60	6233 - Wet Meadow	3.3	Yes	Seasonally wet. Tag alders and willow along perimeter. A few small will scattered throughout. Grasses, mixed forbs, a few bull thistle. An unknown plant found throughout.
63	3302 - Low Density Conifer Trees	10.0		The main part of the opening has a fair amount of regenerating jack pine. A pine stand with a few small opening. The rest of the opening is powerline right-of-way.



Stand	Cover Type	Acres	Managed Site	General Comments:
74	3105 - Mixed Upland Herbaceous	6.0	No	Degraded in some spots. Rolling terrain. Unlisted 1 is hoary alysum. Unlisted 2 is mullein.
77	3105 - Mixed Upland Herbaceous	16.6	No	Powerline. Area north of private and south of pine stand has autumn olive, spotted knapweed, poverty grass, and cladonia. This area is degraded, but is adjacent to private land. Rest is powerline right-of-way. Mixed upland herbaceous and a two-track.
78	3301 - Low Density Deciduous Tree	3.2	No	A little bit of slash here. Mainly black cherry and apples. Plenty of grass, but with spots of hoary alysum and st. john's wort/spotted knapweed.
79	3105 - Mixed Upland Herbaceous	3.4	No	Within big clump, aspen and cottonwood with maple. Some autumn olive underneath. Rest is old apple orchard.
81	122 - Road/Parking Lot	6.9	Unspecified	
83	3105 - Mixed Upland Herbaceous	2.4	No	Might want to cut out red pine seedlings (20 minutes of work) or leave as-is. Unlisted is apple. Unlisted 2 is hoary alysum.
86	3104 - Degraded	1.0	No	Allot of st. john's wort. Sandy soils. Completely degraded. Do something here! Unlisted is mullein.
90	3105 - Mixed Upland Herbaceous	3.6	No	Might want to cut out encroaching pine (15 minutes of chainsaw work). Mixture of grass and spotted knapweed. SW corner is bracken fern.
95	3303 - Mixed Low Density Trees	2.6	No	Mostly cherry and oak. Oak is in good shape. Nice maple also. Pine sapling growth. Old pickup topper/deer blind within this stand. Adjacent to private junk yard.
97	3301 - Low Density Deciduous Tree	5.5	No	Apple trees mixed throughout. White pine & jack pine sapling/poles. Mostly deciduous trees.
98	3104 - Degraded	4.1	No	Allot of spotted knapweed with warm season grasses mixed in. Two large maples within this opening.
99	122 - Road/Parking Lot	1.9	Unspecified	
101	3303 - Mixed Low Density Trees	2.7	No	A combination of upland deciduous and white pine. A little bit of cherry mixed.
104	122 - Road/Parking Lot	9.1	Unspecified	
107	3105 - Mixed Upland Herbaceous	8.4	No	South portion degraded with spotted knapweed.
115	3105 - Mixed Upland Herbaceous	1.2	No	On top of hill. Would like to maintain this opening. 1/2 has fair amount of spotted knapweed. No work need to be done at this time.



Stand	Cover Type	Acres	Managed Site	General Comments:
116	3105 - Mixed Upland Herbaceous	6.7	No	Unknown poplar species near road (silver/white leaf). A few apples. Cool summer grass in spots. Other areas with warm season grasses. Spotted knapweed throughout.
117	3104 - Degraded	3.0	No	Barren spot (all sand) 100ft by 100ft in center. Little bluestem and spotted knapweed surrounding. Might be a good place to plant something (pine, sand cherry, etc.) Mixture of little bluestem and a few trees in north part makes this a medium-priority degraded site.
121	3103 - Rubus-Fern	1.2	No	Walk-in. Mostly bracken fern with poverty grass/cladonia in center. A little bit of aspen encroachment south side, but deer are browsing these down.
123	31021 - Cool Season Grass	1.4	No	Old homestead site with apple.
124	6220 - Alder/willow	2.1	No	Lowland with willow. Raspberry/rubus heavy around perimeter. One of the few lowlands within this compartment.
132	3301 - Low Density Deciduous Tree	4.8	No	Hilly. Multiple deciduous tree species. A few white pine scattered, along with jack pine saplings. 85% bracken fern, 15% warm season grasses.
135	3104 - Degraded	1.6	No	Old oil well pad. A little bit of pine and aspen encroachment in SE finger - good thing. Main part of opening is DEGRADED. Would like to do something with this spot. Unlisted species are mullein and hoary alysum.
138	3105 - Mixed Upland Herbaceous	1.5	No	Powerline. At this portion, multiple clumps of bracken fern. other spots with grasses and spotted knapweed.
144	3301 - Low Density Deciduous Tree	2.9	No	Restrict access by blocking two tracks. Major dumping grounds in years past.  Possibly clean up and placing "no dumping" signs.
149	3301 - Low Density Deciduous Tree	1.1	No	Side of slope. Mostly bracken fern iwth sapling cherries. A dump site on the south side of this stand.
156	3105 - Mixed Upland Herbaceous	2.9		Possibly an old homestead. Couple holes. Areas that are degraded with spotted knapweed. A variety of tree species next to young jack pine strip. One good spot of wild grape. A few apples.
157	122 - Road/Parking Lot	2.8	Unspecified	
158	6233 - Wet Meadow	1.2	No	Bowl-shaped. S 1/2 is cool summer grasses. N1/2 is a wet meadow. Evidence of mud bogging. Post 2-track leading to opening. @-3 access points.
163	31021 - Cool Season Grass	2.1	No	Most of the sumac is dead. A few red pine seedling encroachment. Slight slope. Sugar maples and one beech along north perimeter. A few apple trees. Cut down dead sumac and encroaching red pine and stack/pile wood at one end.



Stand	Cover Type	Acres	Managed Site	General Comments:
167	3105 - Mixed Upland Herbaceous	8.0	No	Powerline with two-track. Grass with spotted knapweed. NE portion has pole upland deciduous. A little bit of wood/slash.
172	31021 - Cool Season Grass	1.5	Yes	A small hill. Both types of hawkweed present (unlisted species).
175	3301 - Low Density Deciduous Tree	3.3	No	Nice cool summer grass opening with apples, surrounded by ash & sugar maple.  Maintain this opening by cutting out red pine seeding and maybe some locust seedlings (20 minutes of work).
187	310 - Herbaceous Openland	1.9	No	Old well pad.
193	3302 - Low Density Conifer Trees	1.7	No	Steep hillside with few scattered white pine