

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61053 Entry Year 2017 Acreage: 3,146

County Grand Traverse

Management Area: Boardman Plains

Revision Date: 2015-05-27

Stand Examiner: Pat Ruppen

Legal Description:

: T26NR9W sections 19, 20, 21, 22, 23, 24

Identified Planning Goals:

This compartment is part of the Boardman Plains Management Area(MA). Vegetative management in this management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Boardman River (a designated natural river) and the Sand Lakes Quiet area (a designated high conservation value area), threatened, endangered and special concern species; 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.

This compartment falls within land-type associations (LTAs) 2221, 5111, and 5549 of sub-subsection VII.2.2. LTA 2221, characterized by broad moraine ridges, few or no lakes, and well drained sand, occurs in the southeastern portion of the compartment. Circa 1800, 91% of the LTA supported northern hardwood forests of American beech and sugar maple. Wetlands were forested with various types of lowland conifers. The LTA has become quite fragmented with 19% consisting of various types with less than 5% cover. Cropland, now the most wide spread cover type, occurs on about 29% of the LTA with old fields occurring on another 13%. Pine forests, which occurred on only about 2% of the LTA circa 1800, now cover 20%; these are largely plantations. Northern hardwood forests also occur on 20% of the LTA, however this represents a significant reduction compared to circa 1800 acreage. LTA 5549, which occurs just along the northern edge of section 20, is a narrow outwash channel with very poorly drained peat and muck. Circa 1800, conifer swamps were the most common type (60%) in LTA 5549, with an additional 7% in hardwood/conifer and hardwood swamp. An additional 14% supported upland conifer types, including xeric jack pine and jack pine/red pine forest, as well as more mesic hemlock/white pine forest. Current land cover of LTA 5549 is a mosaic of lowland conifer, hardwood, shrub, and emergent swamp. LTA 5111, which occurs in the remainder of the compartment and is the dominant LTA, is a broad flat outwash plain with excessively drained sand and few lakes. LTA 5111 occurs in the southern three-quarters of the compartment. This LTA is a broad flat outwash plain with few kettle lakes and excessively drained sand. The circa 1800 vegetation of this LTA was variable but dominated by fire-dependent conifer forests, e.g. jack pine, red pine/white pine, and pine or oak/pine barrens. Calibri (Body) The LTA has become quite fragmented and 27% of its area supports cover types with less than 5% individual cover. Although 42% of the LTA still supports pine forests, much of this is red or jack pine plantation. Aspen/white birch forest, a type that did not occur here at the time of the General Land Office survey, now occurs on 14% of the area, Finally, secondgrowth northern hardwoods occur on another 8% of the LTA. GLO surveyors frequently reported the occurrence of large wildfires within LTA 5111. These fires were among the largest in the state, covering several square miles. Wind-throws, sometimes in combination with wildfire, were often reported.

Several specific forest man

Soil and topography:

Rubicon-Rose lawn and Roscommon Sands with Rifle Peat and Lupton Muck along creeks. Compartment is flat to gently rolling with steeper slopes along entrenched streams and a few widely scattered ice block depressions.

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

State and private lands are intermingled within the compartment. Land in all directions surrounding compartment is mostly state ownership. Private holdings are generally rural in nature.

Unique Natural Features:

Twenty-two Creek traverses the compartment and a branch enters the ground with considerable flow just south of the compartment. A branch of Carpenter Creek jogs in and out of the north side of the compartment. A high quality managed barrens area exist in Section 22. A large number of special plants, animals and natural communities occur within this LTA and potentially within this compartment.

Archeological, Historical, and Cultural Features:

None known, but a historic Native American trail crosses the adjacent compartment to the west.

Special Management Designations or Considerations:

Beaver activity and deer winter yarding around creeks. Managed high quality Barrens Area is Section 22

Watershed and Fisheries Considerations:

Both Carpenter Creek and Twenty Two Creek flow through this compartment. Both of these streams are designated trout streams with populations of naturally reproducing brook trout and brown trout, and are part of the State Designated Natural Rivers system (Boardman River). The Natural Rivers vegetative buffer for Twenty-two and Carpenter Creeks on State land is 100 feet. Beaver activity is common in both Twenty-two Creek and Carpenter Creek. Excessive beaver activity will degrade the natural flow dynamics of these streams, and should not be encouraged by final harvest activities in riparian areas.

Wildlife Habitat Considerations:

Most of compartment 53 consists of a dry sandy outwash plain (LTA 5111). The sandy soil found here 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. Present habitat types include upland mixed stands of pine/oak/aspen of various ages interspersed with a few openings, upland brush, natural pine, and several oak communities. Timber harvests should be designed to mimic wildfires of various intensities, when possible. Several aspen, oak, and pine stands will have cutting prescriptions this entry period and will utilize white pine and oak as residuals. The creation of dead and down logs will also be included in some sales. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. Several openings are scheduled for hand felling to set back woody encroachment, leaving scattered mast producing shrubs/trees. A large portion of this landscape will be burned post-timber harvest. By employing a large scale fire on the landscape the hope is to restore a mosaic of natural pine, oak, aspen, and non-forested habitats like oak/pine barrens or savannas. Some species found in these early to mid-success ional communities include: white-tailed deer, ruffed grouse, eastern bluebird, smooth green snake, long-tailed weasel, and red-tailed hawk. Also, many endangered, threatened, or special concern species can be found in these fire maintained ecosystems. Twenty-two Creek runs through this sandy outwash plain. A narrow strip of lowland conifers and lowland brush are found along the creek bottom and create a valuable riparian corridor through an otherwise dry landscape. A small tributary of Carpenter Creek also makes its way into the compartment.

The east end of the compartment consists of broad rolling moraine ridges of dry sand. Several pine plantations are mixed with stands of oak, aspen, and northern hardwoods. Several deciduous stands are scheduled for treatments of various types. The final harvest of aspen should incorporate the protection of fruiting shrubs and the creation of coarse woody debris. The remaining thinning and selection cuts should result in a nice mix of tree species that will maintain or enhance habitat diversity. Standing dead timber is usually left during harvest operations. One opening, as well as a similar opening adjacent and south of Mayfield Road, will be burnt to stimulate the abundant little bluestem that is already present. Seeding native wildflowers into these openings should make a nice "showcase" treatment along Fife Lake Rd. This matrix of mixed upland deciduous and grassy openings will benefit badger, wild turkey, scarlet tanager, hog-nosed snake, ruffed grouse, Cooper's hawk, red-backed salamander, and gray squirrel.

Mineral Resource and Development Concerns and/or Restrictions

: Sections 19 - 24, T26N-R9W, Grand Traverse County. Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and minor end moraine of coarse-textured till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. The Coldwater does not have a current economic use. The nearest gravel pit is located one mile to the east and there should be potential, especially the uplands. This area is located along the south edge of the prolific Niagaran reef trend. Most of the Compartment is leased and some Niagaran potential may exist. The Antrim Shale has not been developed in this area and may be too deep.

Vehicle Access:

Access is generally good via county roads-Fife Lake Road, Boardman Road, Mayfield Road and Carpenter Creek Road. There are also a number of two tracks that traverse the compartment.

Survey Needs:

Section 23. Timber trespass. NW corner of private 80 must be located. Section 20. State Lands posted around private 40 NESW.

Recreational Facilities and Opportunities:

A variety of trail opportunities are offered in this compartment. The motorized trails include: the Grand Traverse Motorcycle Trail, Michigan Cross Country Cycle Trail (MCCCT), and Snowmobile trail #55 (Grand Traverse Snowmobile Trail). Non-

motorized recreational opportunities include the Shore to Shore Riding and Hiking Trail, and sections of the North Country National Scenic Trail. Trail protection specifications should be considered for all these trails. Specifically, guidance provided by Policy and Procedures document "32.22XX Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails" should be followed. In addition, guidance provided in the "Logging Operations and Horse Events on State Land" should be considered when settling up timber sales that may impact the Shore to Shore Riding & Hiking trail. (T.M.N. 12/9/14).

Fire Protection:

This area is protected by Grand Traverse Fire Battalion # 6 and DNR fire protection is from the Traverse City Unit. Access to most areas in the compartment is adequate and there has not been significant recent wildfire activity.

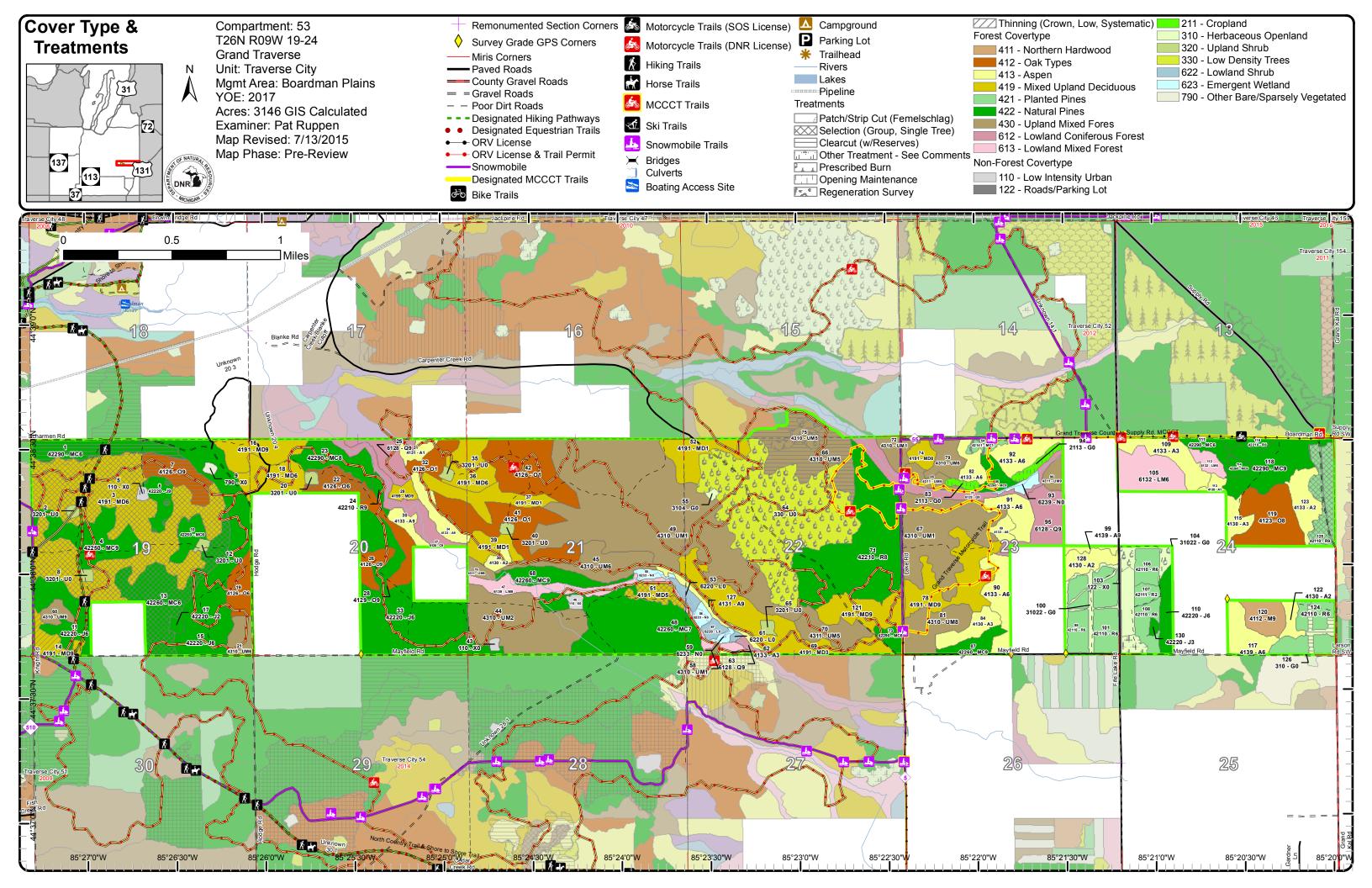
Additional Compartment Information:

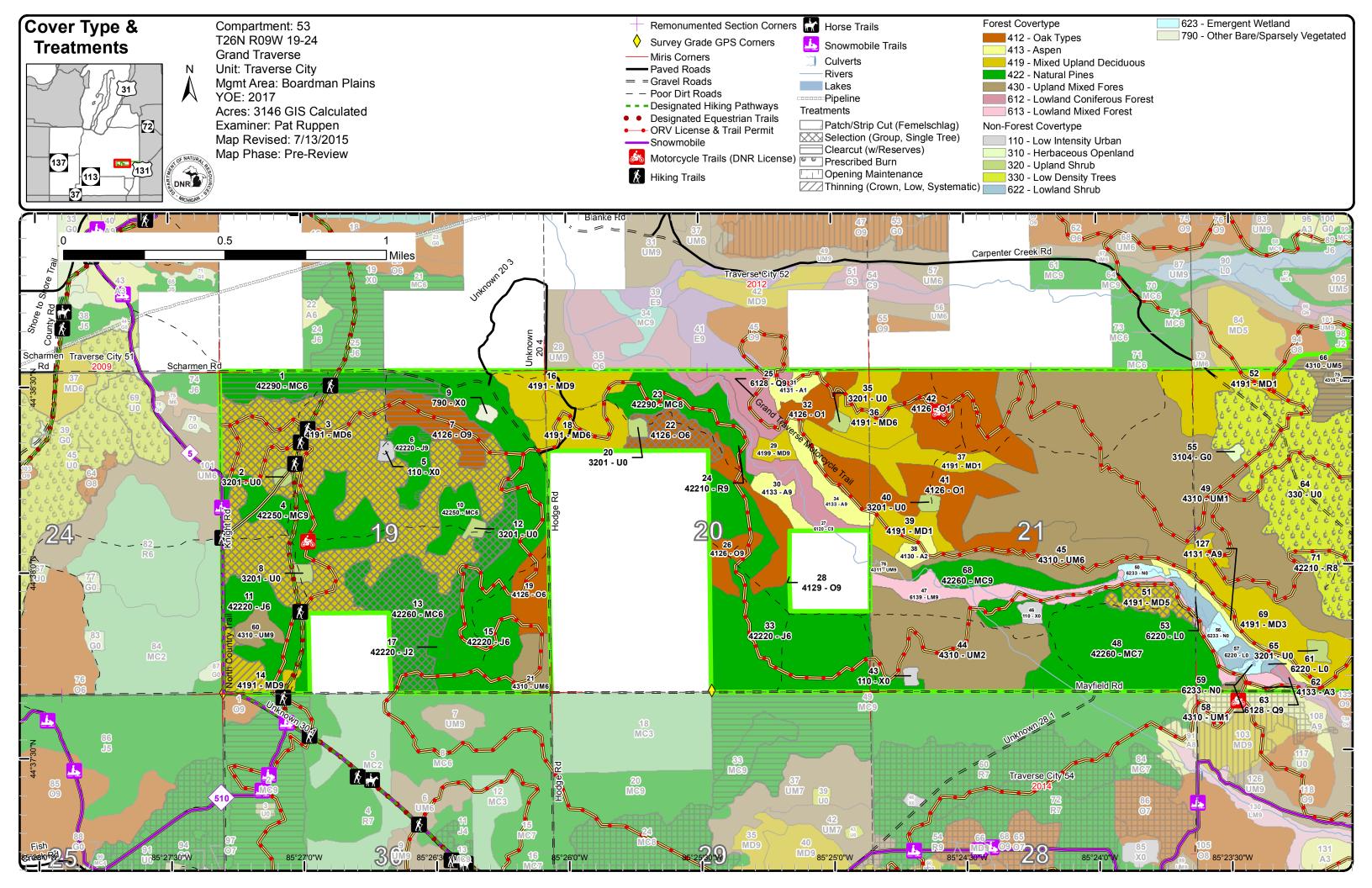
The following reports from the Inventory are attached:

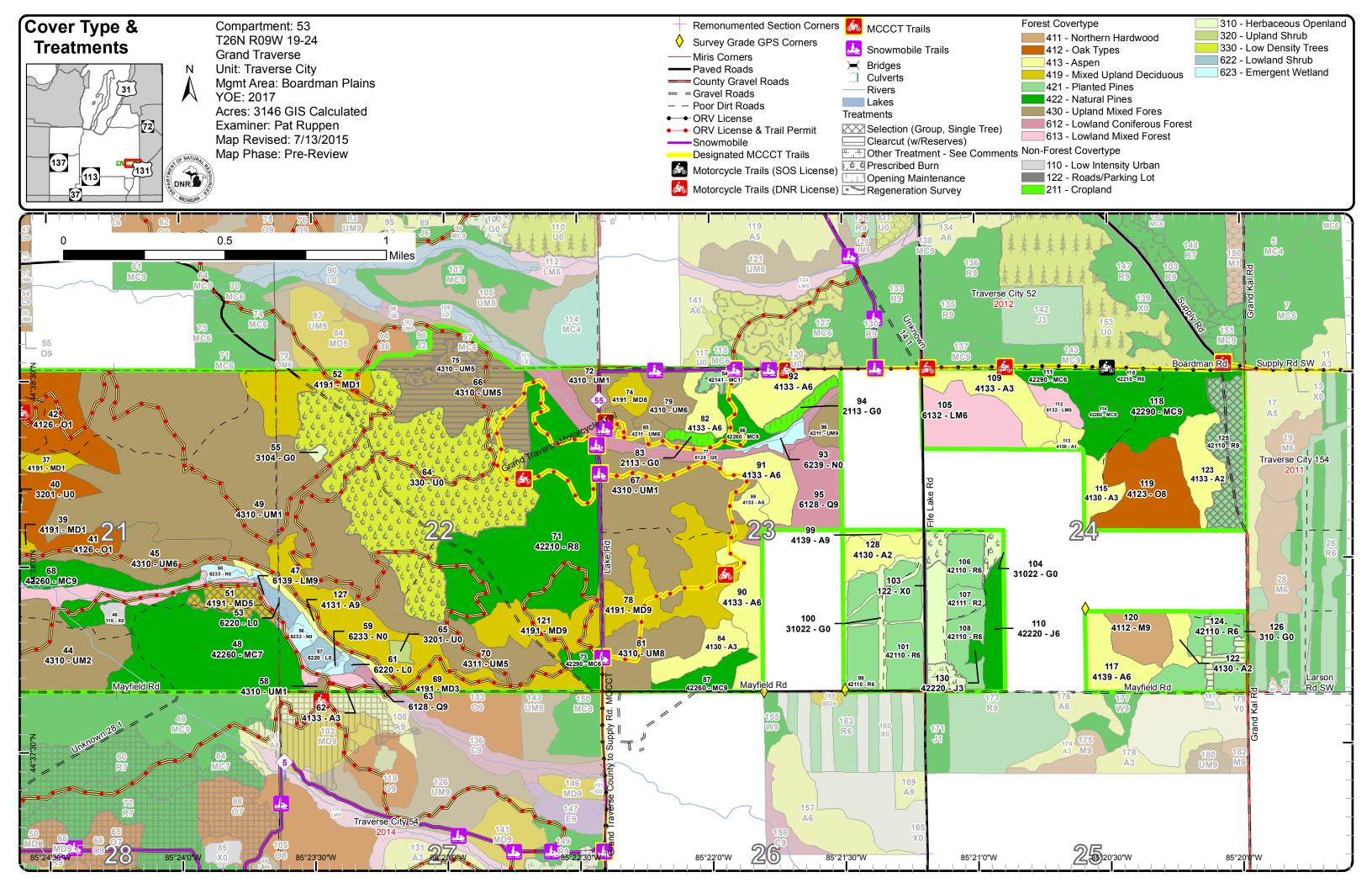
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

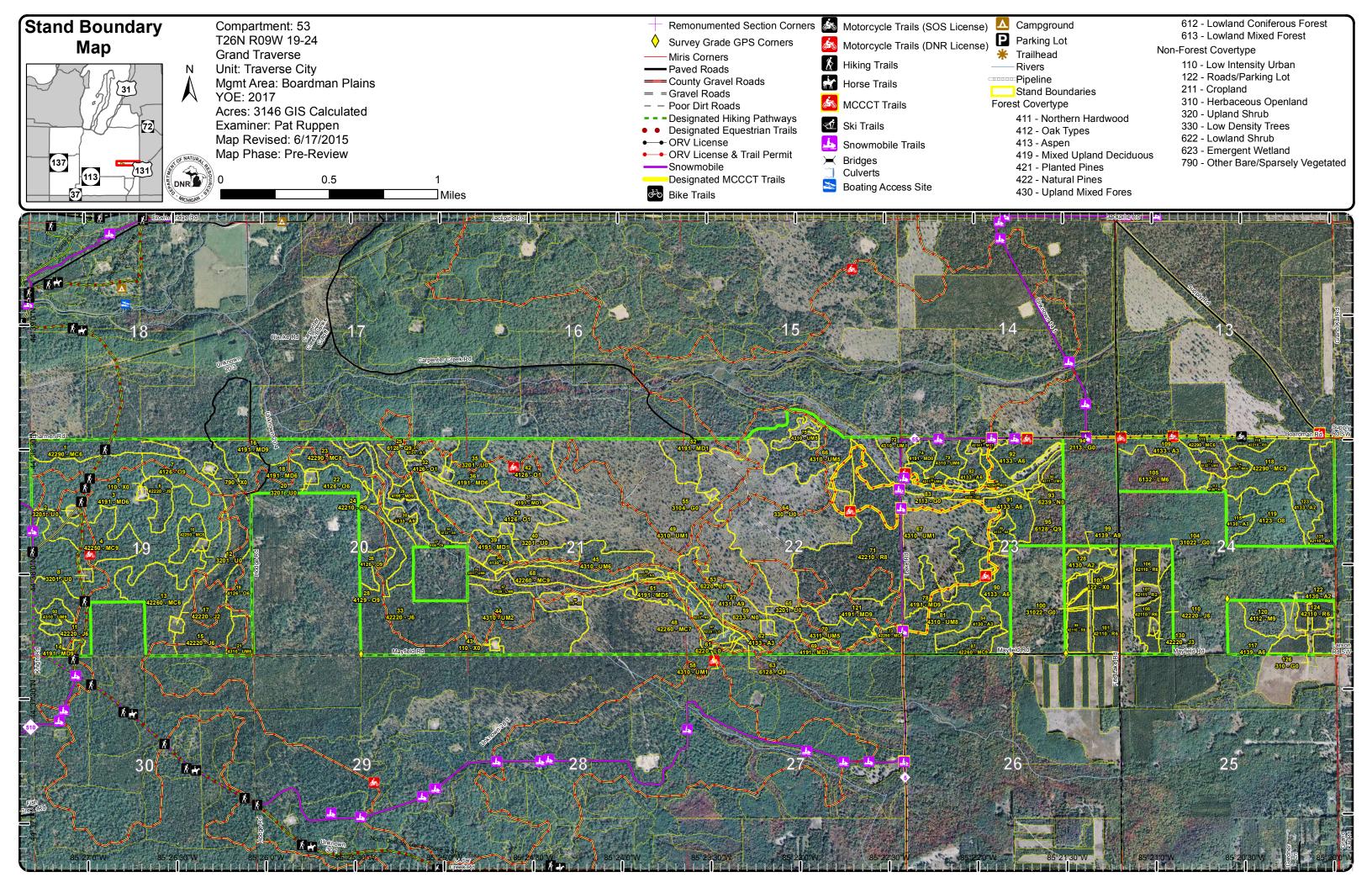
The following information is displayed, where pertinent, on the attached compartment maps:

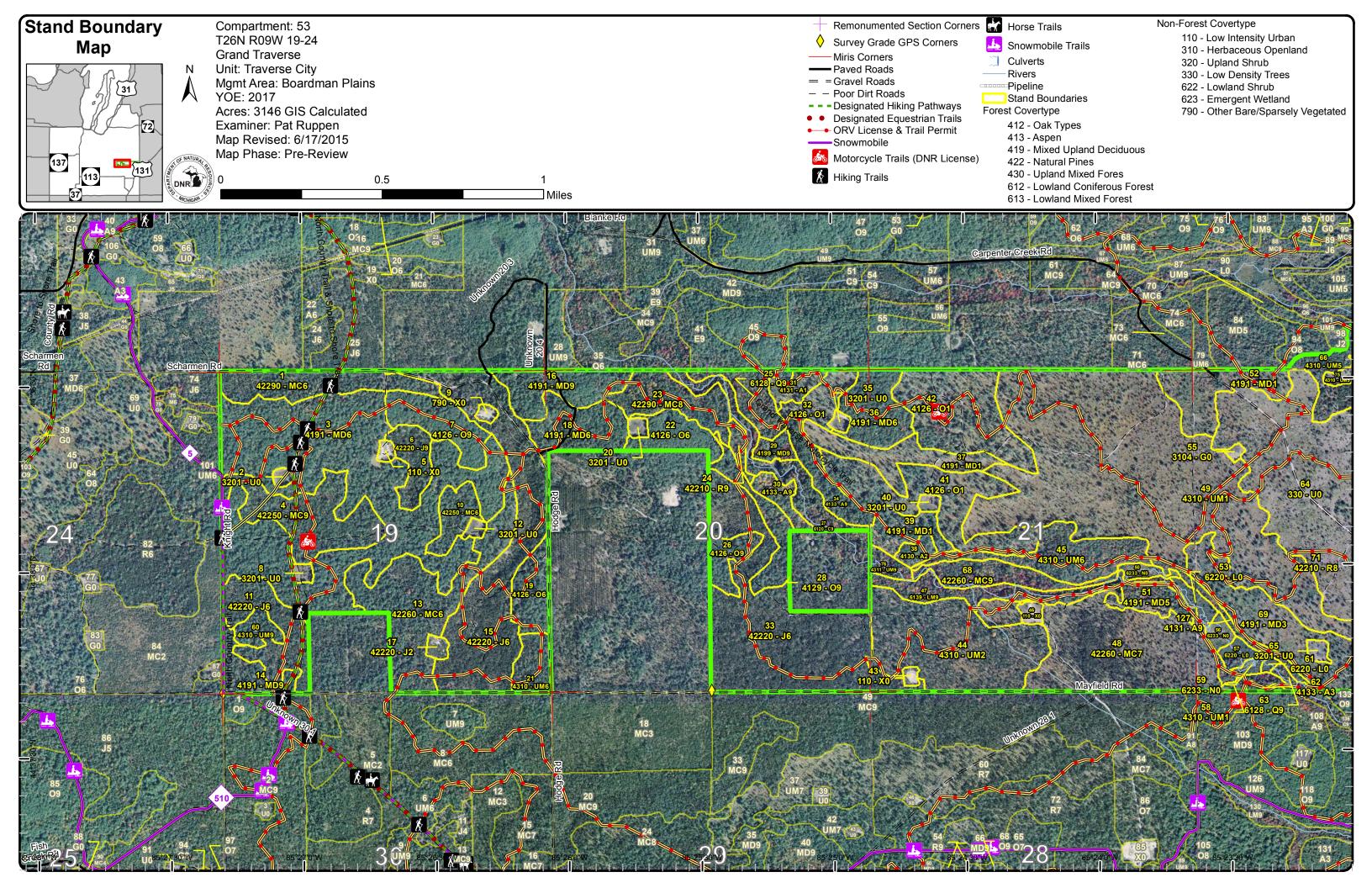
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

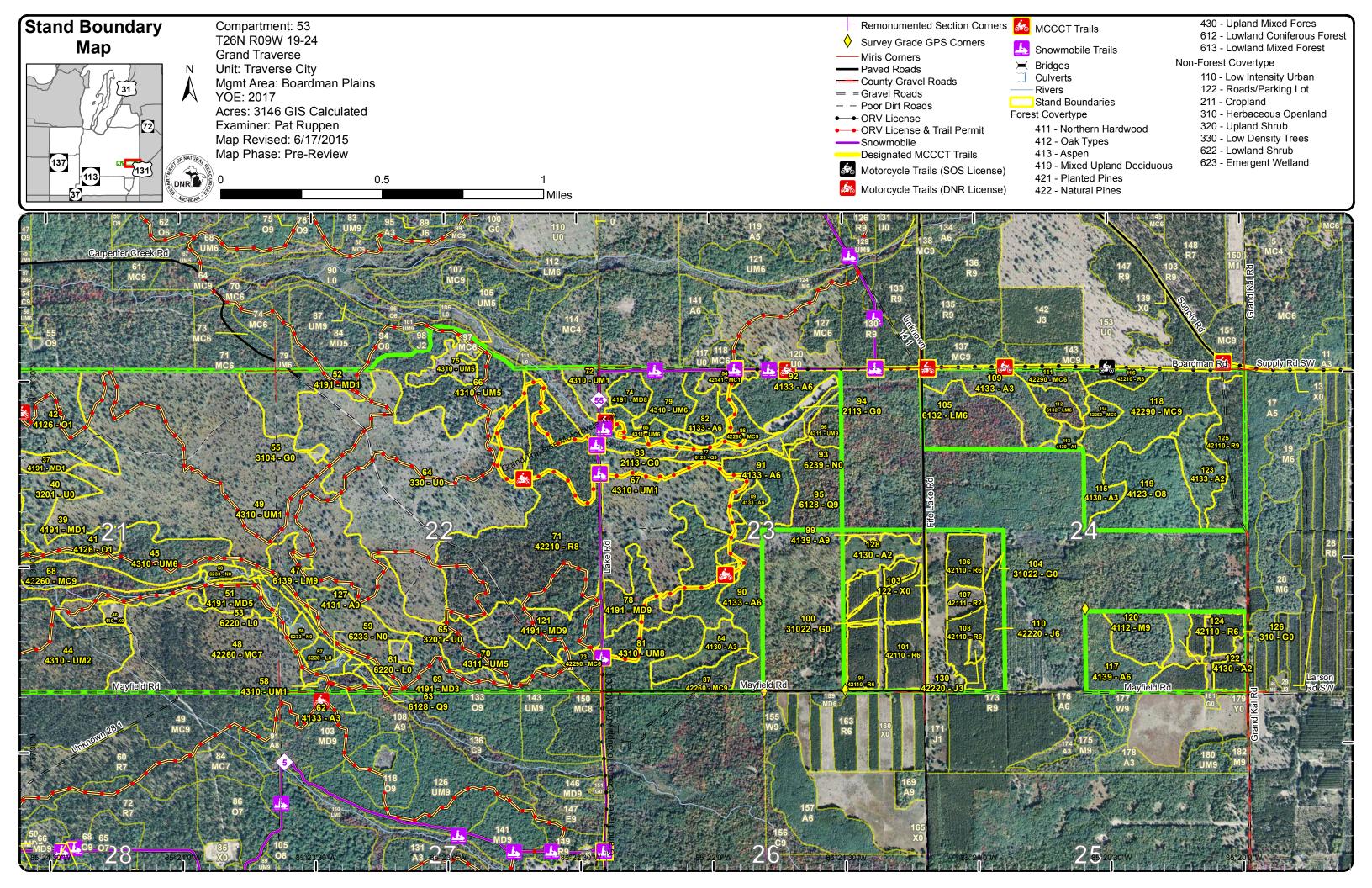


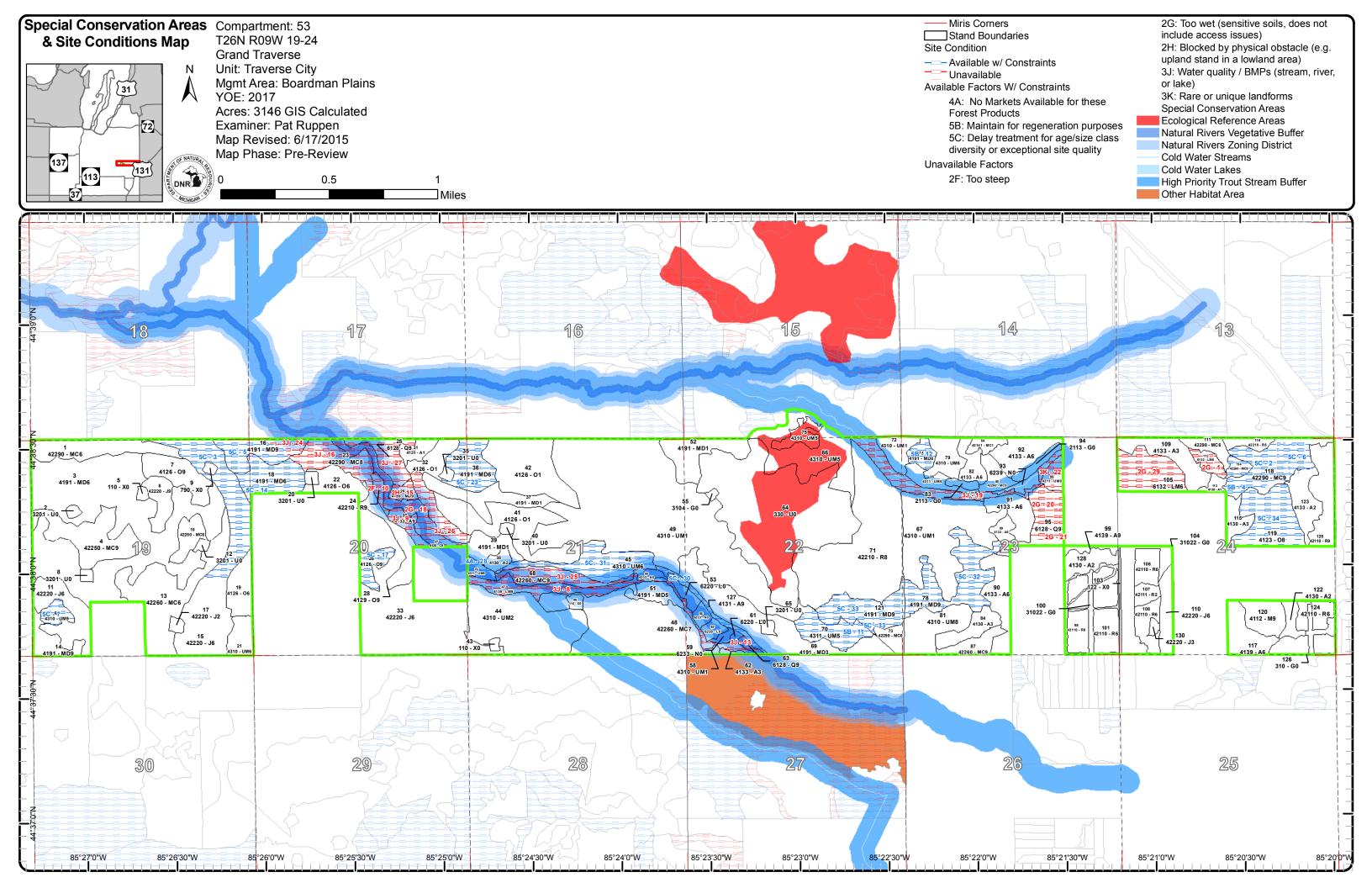


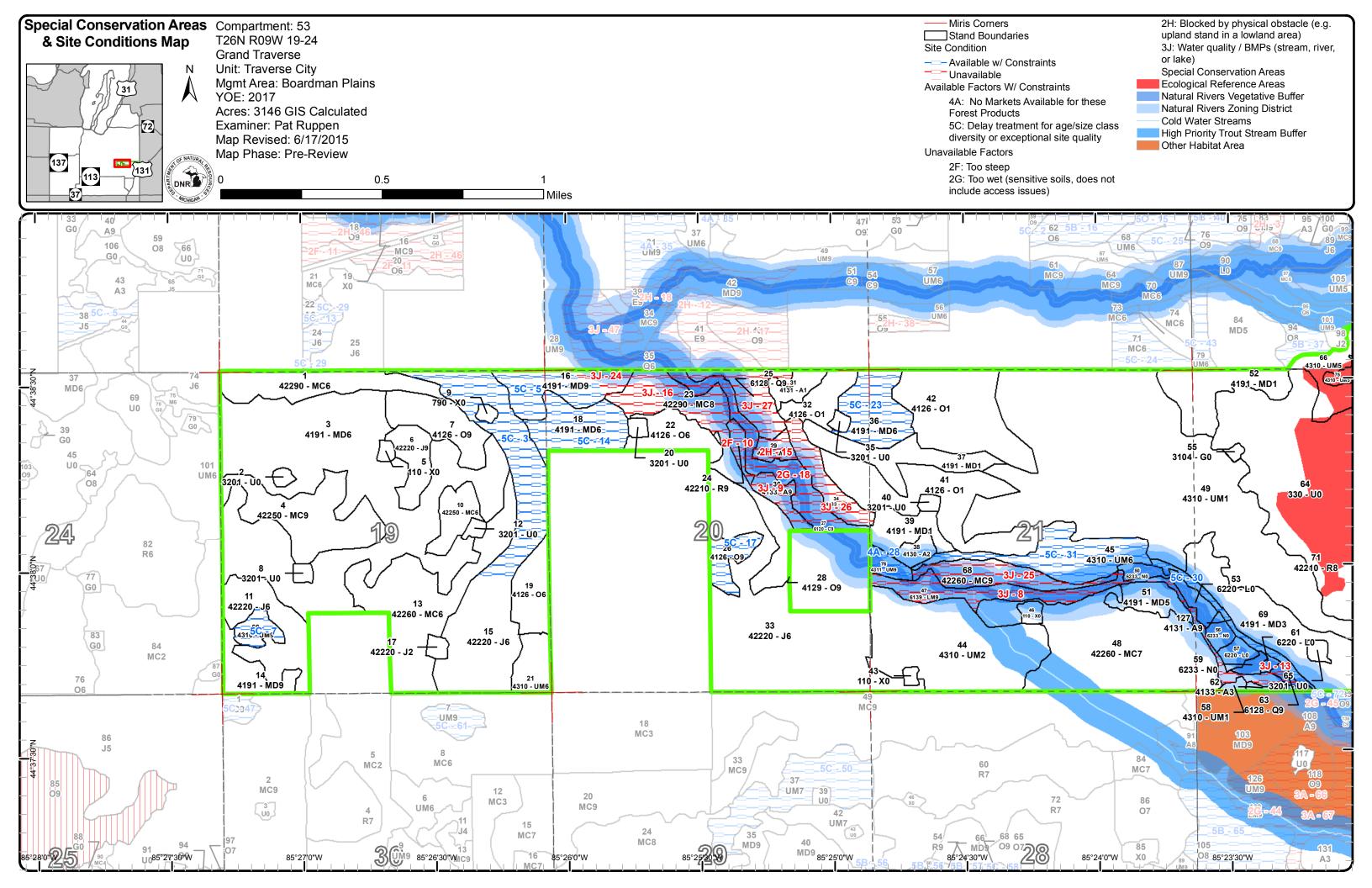


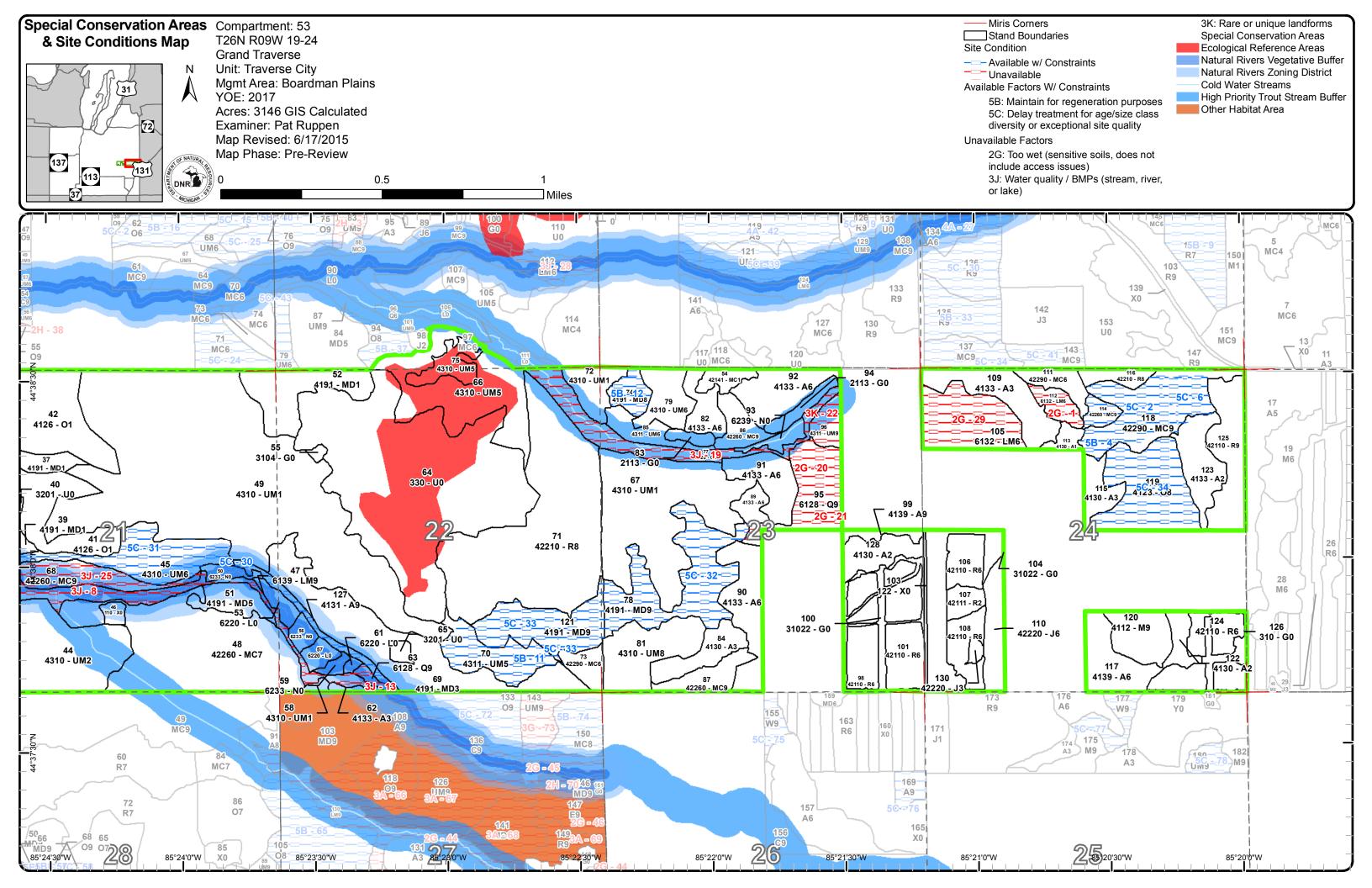












Traverse City Mgt. Unit

Compartment 53

Year of Entry 2017



Pat Ruppen : Examiner

Age Class

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Aspen	0	67	5	36	0	56	0	0	57	28	0	0	0	0	0	0	0	0	249
Bare/Sparsely Vegetated	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Cedar	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	26
Cropland	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Herbaceous Openland	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
Jack Pine	0	2	0	3	0	0	15	249	0	0	0	0	0	0	0	0	0	16	285
Low-Density Trees	183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183
Lowland Conifers	0	0	0	0	0	0	0	0	0	30	29	0	18	0	0	0	0	0	77
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	72
Lowland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Marsh	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed Upland Deciduous	0	122	15	0	0	0	202	12	6	0	185	0	0	0	0	0	0	0	542
Natural Mixed Pines	0	0	0	0	0	0	53	148	127	11	0	0	46	0	0	0	0	0	385
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	18
Oak	0	120	0	0	0	0	0	0	0	44	43	17	29	0	0	0	0	0	253
Planted Mixed Pines	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Red Pine	0	0	6	0	0	0	98	0	166	0	0	0	4	0	0	0	0	0	274
Upland Mixed Forest	0	362	2	105	65	10	15	13	5	0	81	0	0	0	0	0	0	0	658
Upland Shrub	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Urban	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	298	679	28	144	65	66	383	422	361	185	382	17	97	0	0	0	0	16	3143



Report 2 – Treatment Summary

Traverse City Mgt. Unit Year of Entry: 2017

Acres of Harvest

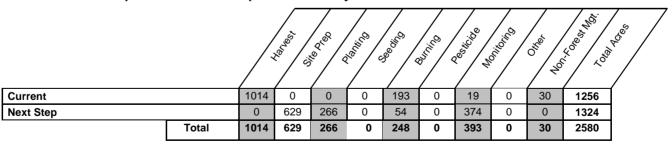
Compartment 53
Total Compartment Acres: 3,146

Commercial Harvest - 0 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 251

Cover Type by Harvest Method

		/			TO T		DOM SHO!	Original Sport	Key Out of Control of	85 / 80 /		\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
Aspen		48	0	0	0	0	0	0	0	0	48	
Cropland		0	0	0	0	0	10	0	0	0	10	
Herbaceous Openland		8	0	0	0	0	0	0	0	0	8	
Jack Pine		198	0	15	0	0	0	0	0	0	212	
Mixed Upland Deciduous		2	214	0	0	0	13	0	0	0	228	
Natural Mixed Pines		79	65	58	8	0	0	0	0	0	210	
Oak		43	17	0	0	0	18	0	0	0	78	
Red Pine		0	28	0	0	0	94	0	0	0	122	
Upland Mixed Forest		67	0	0	0	0	0	31	0	0	98	
	Total	444	324	73	8	0	134	31	0	0	1014	

Proposed and Next Step Treatments by Harvest Method



Compartment: 53 Year of Entry: 2017

t а **Treatment** Stand BA **Treatment Treatment Cover Type** Acres Stand Size Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 1 61053001-42290 - Natural 32.0 Poletimber 60 81-110 Harvest Clearcut with 4122 - Oak, Pine Even-Aged Field Boundary Mixed Pine Well Retention Cut_Cut

Site Condition: Habitat Cut: No

Prescription Retain some well formed oak and pine and harvest remaining stems to regenerate. If possible weave some red pine in after harvest. Specs:

s

Next Step **Treatments:**

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

Regen: Other

Old next step comments: Burn to promote advanced oak regeneration.

Comment:

Proposed Start Date: 7 /31/2014

61053003-201.5 55 4191 - Mixed Uneven-Field Boundary 4191 - Mixed Poletimber 51-80 Harvest Single Tree **Cut Cut**

Upland Deciduous Selection Well Upland Aged with Conifer Deciduous with

Conifer

Habitat Cut: No Site Condition:

Prescription harvest all stems to 4" unless green marked retention. If stand is chip harvested trench in a weave pattern and plant red pine in open areas

avoiding retention and pockets of advanced regeneration. Specs:

Next Step Treatments:

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

Regen:

Other Old next step comments: This stand is two aged currently. The second age is the old wolfy oak. Removing these large crowned trees should

promote a new second age. Comment:

Proposed Start Date: 7 /31/2014

Draft Proposal 61053004-Cut 45.0 42250 - Pine, Oak Sawtimber 55 51-80 Strip/Patch/Gap 4319 - Mixed Harvest Two-Aged

Well Cut **Upland Forest**

(Femelschlag)

Habitat Cut: No Site Condition:

Prescription Remove jack pine, aspen and poorly formed oak, red maple. Most oak is well formed in stand and should be retained to create oak island within

Specs: surrounding harvest.

Next Step

Treatments:

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

Regen:

Other Expect new age class to form in gaps. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

61053006-Cut 14.6 42220 - Natural Sawtimber 55 51-80 Harvest Strip/Patch/Gap 4122 - Oak, Pine Two-Aged Proposal Jack Pine Well Cut

(Femelschlag)

Habitat Cut: No Site Condition:

Prescription Harvest jack pine, aspen, and poorly formed oak/red maple. Manage stand as oak island within surrounding harvest area.

Specs:

Next Step Treatments:

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

Regen:

Other Expect new age class to form in gaps. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



Compartment: 53

Year of Entry: 2017

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
7	61053007- Cut_Cut	24.4	4126 - White, Black, N. Pin Oak	Sawtimber Well	95	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Field Boundary

Site Condition: Habitat Cut: No

Prescription Retain some well formed pine and oak and final harvest remaining stems. If sale is chip harvested trench in a weave pattern and plant red pine in gaps after harvest. .

Specs:

Next Step **Treatments:**

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

Regen:

Other Old next step comments: Open oak. Lots of small oak regen that is getting broused. WO savannah look. If just opened up would fill in with jp

Comment: wp an d rm so some fire would be needed. Burn 1 year after harvest

Proposed Start Date: 7 /31/2014

10 61053010-Cut 13.1 42250 - Pine, Oak Poletimber 60 Strip/Patch/Gap 4122 - Oak, Pine Two-Aged Draft Proposal 51-80 Harvest Well Cut

(Femelschlag)

Site Condition: Habitat Cut: No

Prescription Harvest jack pine, aspen and poorly formed oak and red maple. Maintain as oak island within larger surrounding harvest. Expect new age class

to form in gaps created by harvest. Specs:

Next Step Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

11 61053011-Cut 32.2 42220 - Natural Poletimber 65 51-80 Harvest Clearcut with 42111 - Planted Even-Aged Draft Proposal Jack Pine Red Pine, Well Retention

Mixed Deciduous

Habitat Cut: No Site Condition:

Prescription Retain some well formed oak and pine and harvest remaining stems to 2" dbh. Require tree length chipping to prep stand for site prep and

Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

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

Regen:

Other Trench and plant red pine after harvest. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

13 61053013-42260 - Natural Poletimber 51-80 Harvest Group Selection 4122 - Oak, Pine Uneven-Field Boundary

Pine, Mixed Well Cut_Cut Aged

Deciduous

Habitat Cut: No Site Condition:

Prescription Harvest all merchantable except green marked retention.

Specs:

Next Step Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 7 /31/2014

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 53 Year of Entry: 2017 **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** Name CoverType Density Age Range Type Method Objective Structure

61053014-5-4191 - Mixed Sawtimber 95 81-110 Clearcut with 42111 - Planted 14 1.8 Harvest **Upland Deciduous** Well Retention Red Pine, New with Conifer

Mixed Deciduous **Status**

Even-Aged Draft Proposal

Habitat Cut: No Site Condition:

Prescription retain some well formed oak and pine and tree length chip harvest remaining stems. Trench and plant red pine after harvest. Treat only south Specs:

east part of stand where stocking is low and understory undeveloped.

Next Step **Treatments:**

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

Regen:

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Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

61053014-Cut 12.8 4191 - Mixed Sawtimber 95 81-110 Harvest Crown Thinning 4319 - Mixed Two-Aged Proposal

Upland Deciduous Well **Upland Forest**

with Conifer

Habitat Cut: No Site Condition:

Prescription Remove jack pine and poorly formed oak and red maple to release advanced regeneration forming in sub canopy.

Specs:

Next Step Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

42220 - Natural 61053015-Cut 46.4 Poletimber 60 51-80 Harvest Clearcut with 42111 - Planted Even-Aged Draft Proposal Jack Pine Well Retention Red Pine.

> Mixed Deciduous

Habitat Cut: No Site Condition:

Prescription Retain some widely spaced well formed oak and pine and harvest remaining stems to 2: dbh. Require tree length chipping to reduce slash and

prep site for trenching and planting of red pine. Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

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

Regen:

Trench and plant red pine after harvest. Treat with stands 19 and 21 to east. Old next step comments: Other

Comment:

Proposed Start Date: 10/1 /2016

61053019-Cut 4126 - White 42111 - Planted 18.2 Poletimber 110 51-80 Harvest Clearcut with Even-Aged Draft Proposal Black, N. Pin Oak Well Retention Red Pine,

Mixed

Deciduous

Habitat Cut: No Site Condition:

Prescription Retain some widely spaced well formed oak and pine. Harvest remaining stems to 2" dbh and require tree length chipping job to reduce slash

and prepare site for trenching and planting. Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

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

Regen:

Other trench and plant with red pine in a weave pattern after harvest. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016 Report 4 -- Treatments Compartment: 53 Year of Entry: 2017

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
21	61053021-Cut	12.9	4310 - Pine, Oak Mix	Poletimber Well	60	81-110	Harvest	Clearcut with Retention	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	Draft Proposal

Site Condition: Habitat Cut: No

Prescription Retain some widely spaced well formed oak and pine and harvest remaining stem to 2" dbh. Require tree length chipping job to prepare site for Specs:

trenching and planting.

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

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

Regen:

Other trench and plant red pine in a weave pattern after harvest. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

61053022-17.3 4126 - White. Poletimber 100 81-110 Harvest Single Tree 4129 - Mixed Uneven-Field Boundary Cut_Cut Black, N. Pin Oak Well Selection Oak Aged

Site Condition: Habitat Cut: No

Prescription Specs:

Next Step **Treatments:**

<u>Acceptable</u> Regen:

Other Comment:

Proposed Start Date: 4 /7 /2014

28 61053028-Cut 18.1 4129 - Mixed Oak Sawtimber 95 51-80 Crown Thinning 4319 - Mixed Two-Aged Draft Proposal Harvest Well **Upland Forest**

Habitat Cut: No Site Condition:

Prescription Remove declining jack pine from stand while harvesting stand 33. Crown thin remaining stems as needed.

Specs:

Next Step **Treatments:**

<u>Acceptable</u> Regen:

Consider ORV trail and NCT. Old next step comments: Other

Comment:

Proposed Start Date: 10/1 /2016

42111 - Planted Even-Aged Draft Proposal 61053033-Cut 119.0 42220 - Natural Poletimber 65 51-80 Clearcut with Harvest Well Retention Red Pine, Jack Pine

Mixed Deciduous

Site Condition: Habitat Cut: No

Prescription Retain some well formed oak, maple, red pine and white pine. Require whole tree skidding/chipping to prep site for re-planting. Prescribed stand to south in adjacent compartment that has not been harvested. Green up concerns? Could mark heavier retention along road Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant

Treatments:

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

Regen:

Other Needs survey work to locate private corners. State lands posted around private and corners not found. NE corner was located so maybe others

are there. ORV and NCT in stand. Retain trees along trail. Old next step comments: Comment:

Proposed Start Date: 10/1 /2016

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 53 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 61053048-Cut 37.8 42260 - Natural 1-50 Clearcut with 42111 - Planted Even-Aged Draft Proposal 48 Sawtimber 65 Harvest Pine, Mixed Poor Retention Red Pine, Deciduous Mixed Deciduous **Habitat Cut: No Site Condition:** Prescription Retain some well formed pine and oak and final harvest remaining stems to prepare site for re-planting. Specs: Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant **Treatments:** Acceptable red pine, white pine, jack pine, oak, maple, aspen. Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 61053051-Cut 12.1 4191 - Mixed Poletimber 60 51-80 Harvest Group Selection 412 - Oak Types Two-Aged Draft Proposal **Upland Deciduous** Medium with Conifer **Habitat Cut: No Site Condition:** Prescription Remove declining jack pine, aspen and poorly formed oak and red maple. Keep well formed oak and red/white pine. Sell with stand 45 treatment and chip tops. WLD may want to restore old opening. Specs: Next Step Treatments: Acceptable aspen, jack pine, red pine, white pine, red maple, oak Regen: Other Consider orv and recreation trails. Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 54 42141 - Planted 61053054-Sapling 5 Immatu Monitoring Artificial 42111 - Planted Even-Aged Approved Monitor Mixed Pine, Mixed Poor Regen(3yr) Red Pine, Proposal re Deciduous Mixed Deciduous **Habitat Cut: Yes Site Condition:** Prescription Stand planted to red pine spring 2012 Specs: Next Step **Treatments:**

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

64 61053064- 182.9 330 - Low-Density Nonstocked 0 Unspec Burn Opening 330 - Low-Draft Proposal Burn Density Trees

Habitat Cut: Yes Site Condition:

Prescription Burn periodically to maintain and enhance barrens type.

Specs:

Next Step Treatments:

Acceptable

Regen:

Other (

old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

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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
66	61053066-Cut	54.2	4310 - Pine, Oak Mix	Poletimber Medium	30	1-50	Harvest	Clearcut with Retention	330 - Low- Density Trees		Draft Proposal

Habitat Cut: No Site Condition:

Prescription Retain most well formed oak and some red/white pine if found--possibly a couple small clumps of jp. Harvest remaining stems to begin the restablishment of the barrens feature in this area. This stand will be added to the rotational burn to maintain and enhance this feature. Chip tops and require low stumps to allow for future management. Retain oak of various age classes

Next Step

Treatments:

Acceptable typical barrens type flora.

Regen:

Other Mange as part of surrounding managed barrens area. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

4310 - Pine, Oak 72 Immatu 42111 - Planted Even-Aged Draft Proposal 61053072-12.6 Artificial Sapling Monitoring Monitor Mix Poor Regen(3yr) Red Pine, re Mixed

Deciduous

Compartment: 53

Year of Entry: 2017

Habitat Cut: Yes Site Condition:

Prescription Planted spring 2012. Recheck regeneration spring 2015

Specs:

Next Step
Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 5 /6 /2015

73 61053073-Cut 8.2 42290 - Natural Poletimber 53 51-80 Harvest Seed Tree 4319 - Mixed Pine Well Upland Forest

Habitat Cut: No Site Condition:

<u>Prescription</u> retain some well formed oak, white pine and red pine and harvest remaining stems. Retain 10-40 ba. Retain pocket in southern tip of stand that

Specs: has less jack pine.

Next Step Treatments:

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

Regen:

Other ORV Trail along west edge. Consider trail. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

75 61053075- 10.5 4310 - Pine, Oak Poletimber 30 1-50 Burn Opening 31022 - Warm Draft Proposal Burn Mix Medium Season Grass

Habitat Cut: Yes Site Condition:

Prescription Carpenter Creek Oak Pine Barrens. Continue rotational burns as needed. Divide into several burn units to stagger burns over several years.

<u>Specs:</u> Treat for exotics as needed, particularly spotted knapweed along two tracks.

Next Step Treatments:

Acceptable Barrens typical flora.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Compartment: 53

Year of Entry: 2017

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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
81	61053081-Cut	30.6	4310 - Pine, Oak Mix	Sawtimber Medium	95	51-80	Harvest	Overstory Removal	4319 - Mixed Upland Forest	Even-Aged	Draft Proposal

Habitat Cut: No Site Condition:

Prescription remove most remaining over story to release advanced regeneration. Retain some pine, oak and maple for mast and seed production. Retain a buffer strip along Mayfield Road. Specs:

Next Step

Treatments:

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

61053090-Cut 26.8 4133 - Aspen, Poletimber 75 141-4319 - Mixed Two-Aged Draft Proposal Harvest Clearcut with Mixed Pine Well 170 Retention **Upland Forest**

Habitat Cut: No Site Condition:

Prescription Mark some retention of pine, oak and maple and also a retention strip along west edge along stand 84 for budding and travel cover. Final

harvest remaining stems to 2" dbh to regenerate stand. Specs:

Next Step Treatments:

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

Regen:

Other Timber trespass along east line. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

42110 - Planted 61053098-Cut 20.5 4211 - Planted Poletimber 55 141-Crown Thinning Even-Aged Draft Proposal Harvest Red Pine

Well 170 Red Pine

Habitat Cut: No Site Condition:

Prescription Crown thin. Reduce basal area to 120. Remove suppressed, poorly formed and broken stems. Some areas of stand are close to ba target and Specs:

won't need much thinning.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Old next step comments: Other

Comment:

Proposed Start Date: 10/1 /2016

27.6 Even-Aged Draft Proposal 101 61053101-Cut 42110 - Planted Poletimber 55 141-Harvest Crown Thinning 4211 - Planted

Red Pine Red Pine Well 170

Habitat Cut: No Site Condition:

Prescription Crown thin. Reduce basal area to 120. Remove suppressed, poorly formed and broken stems. Some areas of stand are close to ba target and

Specs: won't need much thinning

Next Step Treatments:

<u>Acceptable</u>

Regen: Other

Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016 Report 4 -- Treatments Compartment: 53 Year of Entry: 2017

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n d	Name	Acres	CoverType	Density	Age	Range	Type	Method	Objective	Structure	Status
106	61053106-Cut	11.9	42110 - Planted Red Pine	Poletimber Well	58	171- 200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Proposal

Habitat Cut: No Site Condition:

Prescription Crown thin. Reduce basal area to 120. Remove suppressed, poorly formed and broken stems. Some areas of stand are close to ba target and Specs:

won't need much thinning

Next Step **Treatments:**

Acceptable Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

108 61053108-Cut 13.1 42110 - Planted Poletimber 58 141-Harvest Crown Thinning 4211 - Planted Even-Aged Draft Proposal Red Pine Well 170 Red Pine

Habitat Cut: No Site Condition:

Prescription Crown thin. Reduce basal area to 120. Remove suppressed, poorly formed and broken stems. Some areas of stand are close to ba target and

won't need much thinning Specs:

Next Step **Treatments:**

Acceptable Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

111 61053111-Cut 42290 - Natural Poletimber Two-Aged Draft Proposal 9.2 65 51-80 Clearcut with 4319 - Mixed Harvest Mixed Pine Well Retention **Upland Forest**

Habitat Cut: No Site Condition:

Prescription Retain some good oak, white pine and maple for mast and seed production. Harvest remaining stems to regenerate stand.

Specs:

Next Step **Treatments:**

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

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

117 61053117-Cut 4139 - Aspen, 21.1 Poletimber 70 141-Clearcut with 4319 - Mixed Two-Aged Draft Proposal Harvest 170 Retention **Upland Forest**

Mixed Deciduous Well

Prescription Retain some pine, northern hardwoods and oak (especially pole sized red oak) and harvest remaining stems to 2" dbh to regenerate stand.

Specs: Could create some retention islands where white pine is heavier

Site Condition:

Next Step Treatments:

Habitat Cut: No

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

Regen:

Trim back treatment to exclude area heavier to northern hardwood mix along east edge Old next step comments: Other

Comment:

Proposed Start Date: 10/1 /2016

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 53 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 61053124-Cut 20.8 42110 - Planted Poletimber 171-Crown Thinning 4211 - Planted Even-Aged Draft Proposal 124 55 Harvest Red Pine Well 200 Red Pine **Site Condition: Habitat Cut: No** Prescription Crown thin. Reduce basal area to 120. Remove suppressed, poorly formed and broken stems. Some areas of stand are close to ba target and won't need much thinning Specs: Next Step **Treatments:**

Acceptable Regen:

Old next step comments:

Comment:

Other

Proposed Start Date: 10/1 /2016

Single Tree ___ 4110 - Sugar Field Boundary 125 61053125-Cut 28.5 42110 - Planted Sawtimber 75 141-Harvest Uneven-Red Pine Well 170 Selection Maple Aged Association

Habitat Cut: No Site Condition:

Prescription Manage north half for pine and move southern part to hardwoods. Red pine has been thinned but has not responded. South part of stand is on Specs: better site and tending toward hardwoods. Open up to encourage regeneration.

Next Step Treatments:

Acceptable Regen:

Other Old next step comments: Monitor regeneration sucess.

Comment:

Proposed Start Date: 12/30/1899

126 61053126-Cut 8.0 310 - Herbaceous Nonstocked 0 Unspec Harvest Clearcut 31021 - Cool Even-Aged Field Boundary Openland ified Season Grass

Habitat Cut: No Site Condition:

Prescription Strip of open ground between plantations grown in with bushy white pine. Remove and chip when plantation pine is thinned.

Specs:

Next Step Treatments:

Acceptable

Regen:

Other Comment:

Proposed Start Date: 10/1 /2006

NF 61053058-1.7 4310 - Pine, Oak Sapling 10 Immatu NonForestMgt **Brush Cutting** 3105 - Mixed Draft Field Mix Poor Upland Boundary NonFor re Herbaceous

Habitat Cut: Yes Site Condition:

Prescription Handfell with chainsaws/brushcutter. Handfell any encroaching pine and maple.

Specs:

Next Step **Treatments:**

Acceptable Regen:

Other Old next step comments:

Comment:

4 /7 /2015 **Proposed Start Date:**

Traverse City Mgt. Unit Report 4 -- Treatments Compartment: 53 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n Method Objective d Name CoverType Density Age Range Type Structure **Status** NF 61053083-83 3.4 2113 - Forage Crops Nonstocked Crown Thinning Draft Field Harvest NonFor Boundary **Site Condition: Habitat Cut: Yes** Prescription Forage crop. This is a DNR rye field. Continue planting rye to benefit white-tailed deer. - BJR Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 12/30/1899 94 NF 61053094-6.2 2113 - Forage Crops Nonstocked Harvest Crown Thinning Draft Field Boundary NonFor **Habitat Cut: Yes Site Condition:** Prescription Forage crop. This is a DNR rye field. Continue planting rye at this location to benefit white-tailed deer. - BJR Specs: Next Step Treatments: Acceptable Regen: Other Comment: **Proposed Start Date:** 12/30/1899 104 NF_61053104-27.9 31022 - Warm Unspec NonForestMgt 31022 - Warm Draft Field Nonstocked Other - Specify

NonFor Habitat Cut: Yes

Prescription Possibly cut and chip most of the pine with adjacent timber sales. WLD will mark. Local forester approves. Prep for medium priority burn.

ified

Season Grass

Specs: Protect old homestead site that is located on SE side. - BJR

Season Grass

Site Condition:

Next Step Treatments:

Acceptable

Regen:
Other
Comment:

Proposed Start Date: 12/30/1899

Total Treatment 1255.8 Acreage Proposed:

Boundary

Compartment: 53

Traverse City Mgt. Unit

Pat Ruppen : Examiner Year of Entry: 2017

Dominant Site Conditions

	2G	2H	3J	3K	4A	5B	5C
Aspen	1		23			0	8
Bare/Sparsely Vegetated							
Cedar	26						
Cropland							
Herbaceous Openland							
Jack Pine							51
Low-Density Trees							
Lowland Conifers	28		49	1			
Lowland Mixed Forest	41		31			0	
Lowland Shrub							
Marsh							
Mixed Upland Deciduous		6	5			12	154
Natural Mixed Pines			46			10	36
Northern Hardwood							
Oak							56
Planted Mixed Pines							
Red Pine							
Upland Mixed Forest	1			7	5	23	42
Upland Shrub							
Urban							
Total Forested Acres	98	6	154	7	5	44	347
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 Dominant Site No. Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Lowland mix-cedar						

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2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: ba and SI Stand of	of oversized natural pine.					
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	52	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5B: Maintain for regeneration purposes	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	21	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Almost pure overs	sized red pine. Regenerate. Get	Kotar				
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	31	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Bottom land and sl	ope along creek bottom					
9	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
10	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
11	Available	5B: Maintain for regeneration purposes	26	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
12	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
13	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
	Comments: Upland steep slope	e and bottomland along creek d	rainage.				

Traverse City Mgt. Unit

Pat Ruppen : Examiner

14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
15	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Blocked by drainag	ge and steep slopes.					
16	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	26	2F: Too steep	3D: Recreational / Scenic values	Unspecified	Unspecified
	Comments: Steep slope and fla	at along Parker Creek					
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Nice small oak sta	nd with jp stand around it. Keep	o for mast	production and diversity	·.		
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	27	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Cedar/lowland fore	est along Parker Creek					
19	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	28	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Orainage on Tribut	ary to Parker Creek.					

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20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	22	Unspecified	Unspecified	Unspecified	Unspecified
1	Comments: Rich Cedar Swamp	. Headwaters for Parker Creek					
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
-	Comments: Headwaters for Parl	ker Creek. Rich Cedar Swamp					
22	Unavailable	3K: Rare or unique landforms	8	2B: Unknown if access through adjacent landowner(s) is possible	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
Е	Comments: Blocked in by draina n natural state.	age to north, Cedar Swamp to so	outh a	and west and private lands t	o east. Large natural pine s	stand. Small Unique are. F	Recommend keeping
23	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
`	Comments: Young age classes Retain for age and s	all around this stand. structure diversity.					
24	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	2F: Too steep	3D: Recreational / Scenic values	Unspecified	Unspecified
(Comments:						
25	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	20	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
(Comments:						

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26	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	2F: Too steep	Unspecified	Unspecified	Unspecified
	Comments: Steep slope along	Parker Creek drainage					
27	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	18	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments: Lowland along Par	ker Creek					
28	Available	4A: No Markets Available for these Forest Products	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Winter cover alono regenerate it,	g creek bottom. Stand is small s	ize with	n poor access. May not mal	ke merchantable timber sa	le even though it may be o	desirable to
29	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	34	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Low hummocky gr	ound-lowland mix					
30	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Adjacent to draina	ge, pockets of stand are wet.					
31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	35	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	50	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
33	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
34	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	44	Unspecified	Unspecified	Unspecified	Unspecified
C	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: 53

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.

Conservatio Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish specified 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 ese 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 effe 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 spapproved 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 local folder.	s Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Elemen (Excellent) or B (Good) and a Global (G) or State (S) element (rathreatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological public recommendations for lands as ERAs using the DNR Con	al Features Inventory (MNFI) within the t Occurrences with viability ranks of A arity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may

S t	Traverse City	Mgt. Unit		Report 8	– Forested	Stands Compartment: 53 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42290 - Natural Mixed Pine	Poletimber Well	31.0	60	81-110	2015: part of TS# 052-14. Cut all merchantable -oak and pine retention. Consider trenching and planting after harvest if sale is chipped.
3	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	202.4	55	51-80	2015: part of TS# 052-14. Cut all merchantable-green marked retention. Consider weaving pine in after harvest if the stand is chipped. Large old oak scattered around age 105. 2005; Large crowned old scattered oak-mostly white, with jp,wp,oak,rm,filled in.
4	42250 - Pine, Oak	Sawtimber Well	45.0	55	51-80	
6	42220 - Natural Jack Pine	Sawtimber Well	14.6	55	51-80	
7	4126 - White, Black, N. Pin Oak	Sawtimber Well	24.6	95	81-110	
10	42250 - Pine, Oak	Poletimber Well	13.1	60	51-80	
11	42220 - Natural Jack Pine	Poletimber Well	32.2	65	51-80	2015: Consider harvesting this and planting red pine. Most of the stand would be pretty clean after harvest. Northwest part has heavier oak understory. Part of stand 14 could also be final harvested where there is light understory development. Stand 60 should be retained as good age/structure diversity. 2005;Older pine and oak scattered JP variable aged 30-50 most 30. Jack pine looks fine but the quality is poor. Red pine did much better on this site. Let grow in more and look at in next entry.
13	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	65.1	70	51-80	
14	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	14.6	95	81-110	
15	42220 - Natural Jack Pine	Poletimber Well	98.0	60	51-80	Jack pine with scattered log size oak, white pine and red pine.
16	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	26.1	95	141-170	
17	42220 - Natural Jack Pine	Sapling Medium	2.7	20	Immature	
18	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	27.9	95	51-80	
19	4126 - White, Black, N. Pin Oak	Poletimber Well	18.2	110	51-80	
21	4310 - Pine, Oak Mix	Poletimber Well	12.9	60	81-110	

S t	Traverse City		Report 8	- Forested	Stands Compartment: 53 Year of Entry: 2017	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4126 - White, Black, N. Pin Oak	Poletimber Well	17.3	100	81-110	
23	42290 - Natural Mixed Pine	Sawtimber Medium	26.1	110	141-170	
24	42210 - Natural Red Pine	Sawtimber Well	4.4	115	111-140	Natural Red and White Pine along Carpenter Creek.
25	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	18.4	110	111-140	Old Lowland block. Pretty unique.
26	4126 - White, Black, N. Pin Oak	Sawtimber Well	11.5	110	51-80	
27	6120 - Lowland Cedar	Sawtimber Well	25.7	95	111-140	cedar swamp along creek
28	4129 - Mixed Oak	Sawtimber Well	18.1	95	51-80	
29	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.6	70	51-80	
30	4133 - Aspen, Mixed Pine	Sawtimber Well	8.4	80	81-110	
31	4131 - Aspen, Oak	Sapling Poor	7.4	6	Immature	
32	4126 - White, Black, N. Pin Oak	Sapling Poor	13.6	6	Immature	
33	42220 - Natural Jack Pine	Poletimber Well	119.0	65	51-80	
34	4133 - Aspen, Mixed Pine	Sawtimber Well	15.9	80	111-140	
36	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	26.2	95	111-140	2015: Keep for age class and structure diversity. 2005: Some very old red pine scattered around. Scattered older oak and pine filled in with real nice mix in the 50 year age. A third age class 23-30 year and then younger regen. It is too thick to remove the olest age class without messing up a lot of other trees leave for now and let it grow in.
37	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	26.0	6	1-50	
38	4130 - Aspen	Sapling Medium	5.4	17	Immature	cut in 1998. Young regen
39	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	14.9	17	1-50	

S t	Traverse City		Report 8	Forested	Stands Compartment: 53 Year of Entry: 2017	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4126 - White, Black, N. Pin Oak	Sapling Poor	53.4	6	1-50	
42	4126 - White, Black, N. Pin Oak	Sapling Poor	53.2	6	Immature	
44	4310 - Pine, Oak Mix	Sapling Medium	80.8	20	1-50	
45	4310 - Pine, Oak Mix	Poletimber Well	34.9	95	51-80	
47	6139 - Mixed Lowland Forest	Sawtimber Well	30.8	80	81-110	
48	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	94.9	65	1-50	
49	4310 - Pine, Oak Mix	Sapling Poor	265.3	7	Immature	
51	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	12.1	60	51-80	
52	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	28.1	7	Immature	
54	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Poor	6.1	5	Immature	
58	4310 - Pine, Oak Mix	Sapling Poor	1.7	10	Immature	
60	4310 - Pine, Oak Mix	Sawtimber Well	7.6	95	111-140	
62	4133 - Aspen, Mixed Pine	Sapling Well	1.6	20	Immature	Scattered oak and older pine. part of small clearcut. Other side is still open cover. Aspen /rm regen.
63	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	2.4	80	111-140	Creek bottom
66	4310 - Pine, Oak Mix	Poletimber Medium	54.2	30	1-50	
67	4310 - Pine, Oak Mix	Sapling Poor	84.1	5	1-50	TS# 072-07. Harvested fall 2009. Planted spring 2011. Planted red pine with oak, jp, aspen, rm, wp, ba that started after harvest. Retention of log sized oak and pine from last treatment. Heavy browsing on oak but some is growing through. Good pine site but also good deciduous mix coming in.
68	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	20.1	115	111-140	·

S t	Traverse City Mgt. Unit			Report 8 – Forested Stands			Compartment: 53 Year of Entry: 2017		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN	
69	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	67.9	5	Immature				
70	4311 - Pine, Aspen Mix	Poletimber Medium	23.7	25	51-80				
71	42210 - Natural Red Pine	Sawtimber Medium	129.7	73	81-110				
72	4310 - Pine, Oak Mix	Sapling Poor	12.6	5	Immature				
73	42290 - Natural Mixed Pine	Poletimber Well	8.2	53	51-80				
74	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	8.3	95	51-80				
75	4310 - Pine, Oak Mix	Poletimber Medium	10.5	30	1-50				
76	4311 - Pine, Aspen Mix	Sawtimber Well	5.4	75	111-140				
77	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	28.0	80	111-140		Low area along drainage		
78	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	49.7	95	111-140				
79	4310 - Pine, Oak Mix	Poletimber Well	15.4	55	81-110				
81	4310 - Pine, Oak Mix	Sawtimber Medium	30.6	95	51-80				
82	4133 - Aspen, Mixed Pine	Poletimber Well	11.0	45	111-140				
84	4130 - Aspen	Sapling Well	14.9	6	1-50				
85	4311 - Pine, Aspen Mix	Poletimber Well	10.3	45	81-110		and aspen grown in among Heavier wp stocking on wes east.		
86	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	10.6	80	81-110				
87	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	12.2	75	81-110				
89	4133 - Aspen, Mixed Pine	Poletimber Well	6.1	45	111-140			_	

S t	Traverse City Mgt. Unit			Report 8	- Forested	Stands Compartment: 53 Year of Entry: 2017		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
90	4133 - Aspen, Mixed Pine	Poletimber Well	26.8	75	141-170			
91	4133 - Aspen, Mixed Pine	Poletimber Well	17.8	45	81-110			
92	4133 - Aspen, Mixed Pine	Poletimber Well	21.3	45	111-140			
95	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	29.0	95	111-140	Part of stand in SE corner cut in trespass.		
96	4311 - Pine, Aspen Mix	Sawtimber Well	7.9	95	171-200	Large "old Growth" natural pine stand. Smal Unique area. Recommend keeping in natural state.		
98	42110 - Planted Red Pine	Poletimber Well	20.5	55	141-170			
99	4139 - Aspen, Mixed Deciduous	Sawtimber Well	3.7	80	81-110			
101	42110 - Planted Red Pine	Poletimber Well	27.6	55	141-170			
105	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	33.8	80	141-170	Low hummocked ground		
106	42110 - Planted Red Pine	Poletimber Well	11.9	58	171-200	red pine plantation. Part of pine to south burned in 2005 and was cut and planted in same year.		
107	42111 - Planted Red Pine, Mixed Deciduous	Sapling Medium	6.4	10	Immature			
108	42110 - Planted Red Pine	Poletimber Well	13.1	58	141-170			
109	4133 - Aspen, Mixed Pine	Sapling Well	24.8	26	Immature			
110	42220 - Natural Jack Pine	Poletimber Well	16.2	46	81-110	JP and WP that has been slowly seeding in to pockets. A few red pine poles. Various age classes resulting. Most is getting to a merchantable size. Large weeviled white pine scattered around along with some bushy open grown beech. A few log sized red oak and maple. This stand could be harvested and replanted to red pine or it could go another cycle. Not too much snow damage or mortality at this time.		
111	42290 - Natural Mixed Pine	Poletimber Well	9.2	65	51-80			
112	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	7.7	80	141-170	Small Deer Yard. Hummocky		

S t	Traverse City Mgt. Unit			Report 8	- Forested Stand	S Compartment: 53 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
113	4130 - Aspen	Sapling Poor	4.4	6	1-50	
114	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	5.2	70	141-170	
115	4130 - Aspen	Sapling Well	10.0	20	Immature	
116	42210 - Natural Red Pine	Sawtimber Medium	6.5	70	111-140	Part of larger cut to north. Has been opened up
117	4139 - Aspen, Mixed Deciduous	Poletimber Well	21.6	70	141-170	
118	42290 - Natural Mixed Pine	Sawtimber Well	44.3	70	171-200	
119	4123 - Red Oak	Sawtimber Medium	44.0	80	51-80	
120	4112 - Maple, Beech, Cherry Association	Sawtimber Well	17.7	95	81-110	
121	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	32.4	95	111-140	
122	4130 - Aspen	Sapling Medium	7.3	6	Immature	
123	4133 - Aspen, Mixed Pine	Sapling Medium	19.8	6	1-50	
124	42110 - Planted Red Pine	Poletimber Well	25.2	55	171-200	A little white pine scattered in.
125	42110 - Planted Red Pine	Sawtimber Well	30.3	75	141-170	
127	4131 - Aspen, Oak	Sawtimber Well	8.1	70	111-140	
128	4130 - Aspen	Sapling Medium	14.3	7	1-50	
130	42220 - Natural Jack Pine	Sapling Well	1.9	7	Immature	



Stand	Cover Type	Acres	Managed Site	General Comments:
2	3201 - Sweet Fern	2.0	No	Mostly sweetfern with clumps of little bluestem. A few holes.
5	110 - Low Intensity Urban	1.9	No	Active well site.
8	3201 - Sweet Fern	2.1	No	Really nice old well pad. Equal mixture of sweetfern and little bluestem. Jack pine encroaching. Leave as-is.
9	790 - Other Bare/Sparsely Vegetate	1.8	No	Allot of bare soil in center. Should do something here. FMFM recommends leaving as-is, replant to jack pine during next compartment cycle when adjacent stand is ready for cut. Need to fix berm.
12	3201 - Sweet Fern	2.1	No	Sweetfern opening.
20	3201 - Sweet Fern	2.2	No	Big clumps of sweetfern. Redtop (?) grass. Nice oaks surrounding opening. A couple holes, a patch of milkweed. Two-track goes around perimeter.
35	3201 - Sweet Fern	2.0	No	Another nice sweetfern opening. Blown-over pine blocks access. Leave as-is. Couple nice snags NW corner.
40	3201 - Sweet Fern	2.1	No	Nice sweetfern opening.
43	110 - Low Intensity Urban	1.6	No	Oil well site. Pipe has been capped. Active.
46	110 - Low Intensity Urban	2.9	No	Oil well site. Has a cap on the pipe.
50	6233 - Wet Meadow	4.1	No	Twenty two creek runs through. Cedar is dead and dying. Mostly sedges with traces of fern and other forbs.
53	6220 - Alder/willow	5.1	No	
55	3104 - Degraded	1.3	No	Degraded site. Would like to do something here. Could try to restore native grasses or let FMFM do something here. Prescription would be a prescribed burn, along with the adjacent stands.
56	6233 - Wet Meadow	4.2	No	Sedge meadow. Evidence of an old beaver flooding.
57	6220 - Alder/willow	4.7	No	
59	6233 - Wet Meadow	2.5	No	
61	6220 - Alder/willow	1.2	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
64	330 - Low-Density Trees	182.9	Yes	OPEN LOW DENSITY TREES. jp SEEDING IN.
65	3201 - Sweet Fern	2.7	No	Some areas degraded with spotted knapweed/st. john's wort. Autumn olive is deteriorating. Big clumps of sweetfern. Leave as-is.
83	2113 - Forage Crops	3.4	No	DNR rye field. Continue planting here.
93	6239 - Mixed Emergent Wetland	4.9	No	Allot of dead, standing wood. Unlisted specie is goldenrod.
94	2113 - Forage Crops	6.2	Yes	This is a DNR rye field. Continue planting here. Looking good. A few large oaks and white pine within this opening.
100	31022 - Warm Season Grass	13.2	No	Fire-break between two red pine stands.
103	122 - Road/Parking Lot	3.1	Unspecified	
104	31022 - Warm Season Grass	27.9	No	Clumps of pine & upland deciduous. Lots of little bluestem. Possibly cut and chip most of the pine with adjacent timber sale. Medium priority burn. Old homestead site SE side with walnut and apple trees. This area would have to be protected if burned.
126	310 - Herbaceous Openland	8.0	No	opening seeding in with bushy wp jp and rm