

Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 47
Entry Year 2015

Acreage: 1,742
County Antrim

Management Area: Jordan Valley

Revision Date: 04/16/2013

Stand Examiner: Lucas Merrick

Legal Description:

Warner Township, T31N, R05W, Sections: 16, 21, 22, 28, & 33

Identified Planning Goals:

To provide for the protection, integrated management and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and topography:

The soils in the hilly hardwoods are primarily a Kalkaska-Montcalm association. These soils are well drained loams and sands. Tawas-Ensley-Roscommon soil associations are found in the lowland conifer complex along the river corridor. These soils are poorly drained mucks and loams. Topography in compartment ranges from level to very steep.

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

Private ownership borders the eastern and southern boundaries. The private ownership is primarily agricultural. This compartment is the eastern edge of the Jordan Valley Management area. A large contiguous block of state ownership continues westward following the river valley.

Unique Natural Features:

Potential for Blanding's turtle, wood turtle, eastern massasauga, red-shouldered hawk, northern goshawk, grasshopper sparrow and spike-lip crater. Potential for ram's head lady's-slipper, limestone oak fern, round-leaved orchis, and calypso orchid in mixed conifer swamps.

Archeological, Historical, and Cultural Features:

HAL concerns recorded in section 22. The Jordan River was the state's first designated "Natural River".

Special Management Designations or Considerations:

Compartment 47 is a part of the Jordan River Management Area. This area is a dedicated High Value Conservation Area (HCVA). The Jordan River is a designated "Natural River" which is also a HCVA's. Per the Jordan River Management Plan portions of this compartment are designated as "potential old growth".

Watershed and Fisheries Considerations:

This compartment is in the Jordan River watershed. Portions of the Jordan River headwaters and Obrien's Pond / Warner Creek are found within the proposed treatment area. The appropriate BMP's and Natural Rivers buffers should be followed.

Wildlife Habitat Considerations:

This compartment consists mostly of upland hardwoods and a lowland complex associated with the Jordan River. The lowland area is used by a variety of species including waterfowl, amphibians, and various songbirds and furbearers. The hardwoods in the northern portion of this compartment will be treated and will provide structural diversity to the stand. A number of openings in this compartment are prescribed to be maintianed to benefit white-tailed deer and wild turkey. This area gets considerable hunting pressure for white-tailed deer and wild turkey.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and an end moraine of coarse-textured till (uplands) and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Devonian Ellsworth Shale. The Ellsworth is quarried for cement products elsewhere in the State. Gravel pits are located in the area and potential appears to be good on the uplands. Oil and gas potential in the area is primarily for the Antrim Shale gas play and most of the State land in the compartment is currently leased and has been developed. Part of the compartment is in the Jordan Valley Management Area and surface development is not allowed. Some State land is being drained of hydrocarbons.

Vehicle Access:

Vehicle access throughout the compartment is adequate. There are multiple "closed" roads previously used for logging

that may be re-opened during future management activities. These roads will be closed to vehicle traffic again once management operations cease.

Survey Needs:

A survey may be required in section 28.

Recreational Facilities and Opportunities:

Warner Creek Trail and The North Country trail are non-motorized pathways found in the compartment. Jordan River Road is used as a snowmobile trail (#766) December 1st Through March 31st. Dead Man's Hill Scenic overlook is in the southern portion. Dispersed recreational activities are evident throughout the compartment.

Fire Protection:

The cover types found in and around this compartment are not prone to large fire events. Topography and the wetland complex adjacent to the river may limit fire equipment access.

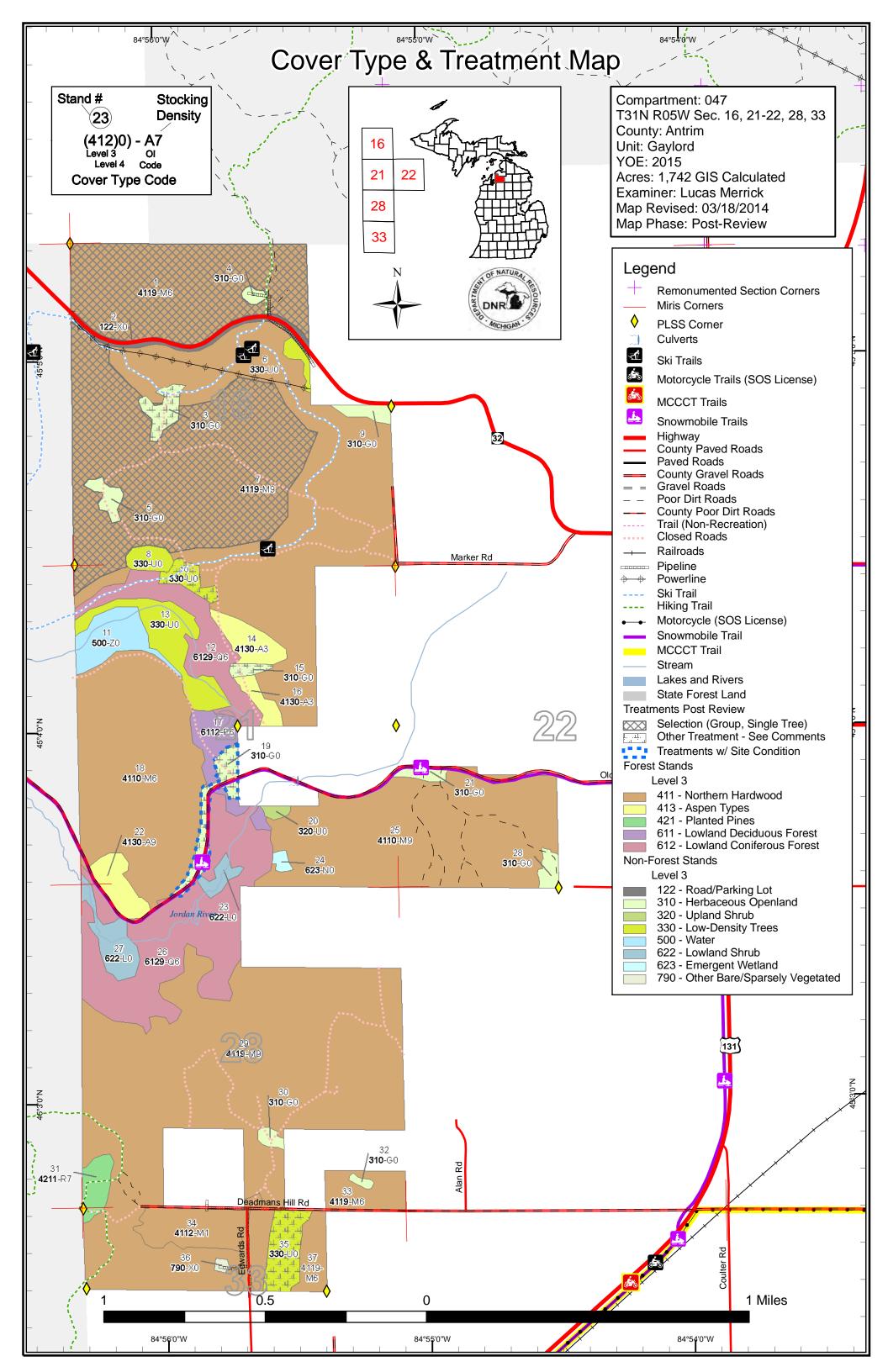
Additional Compartment Information:

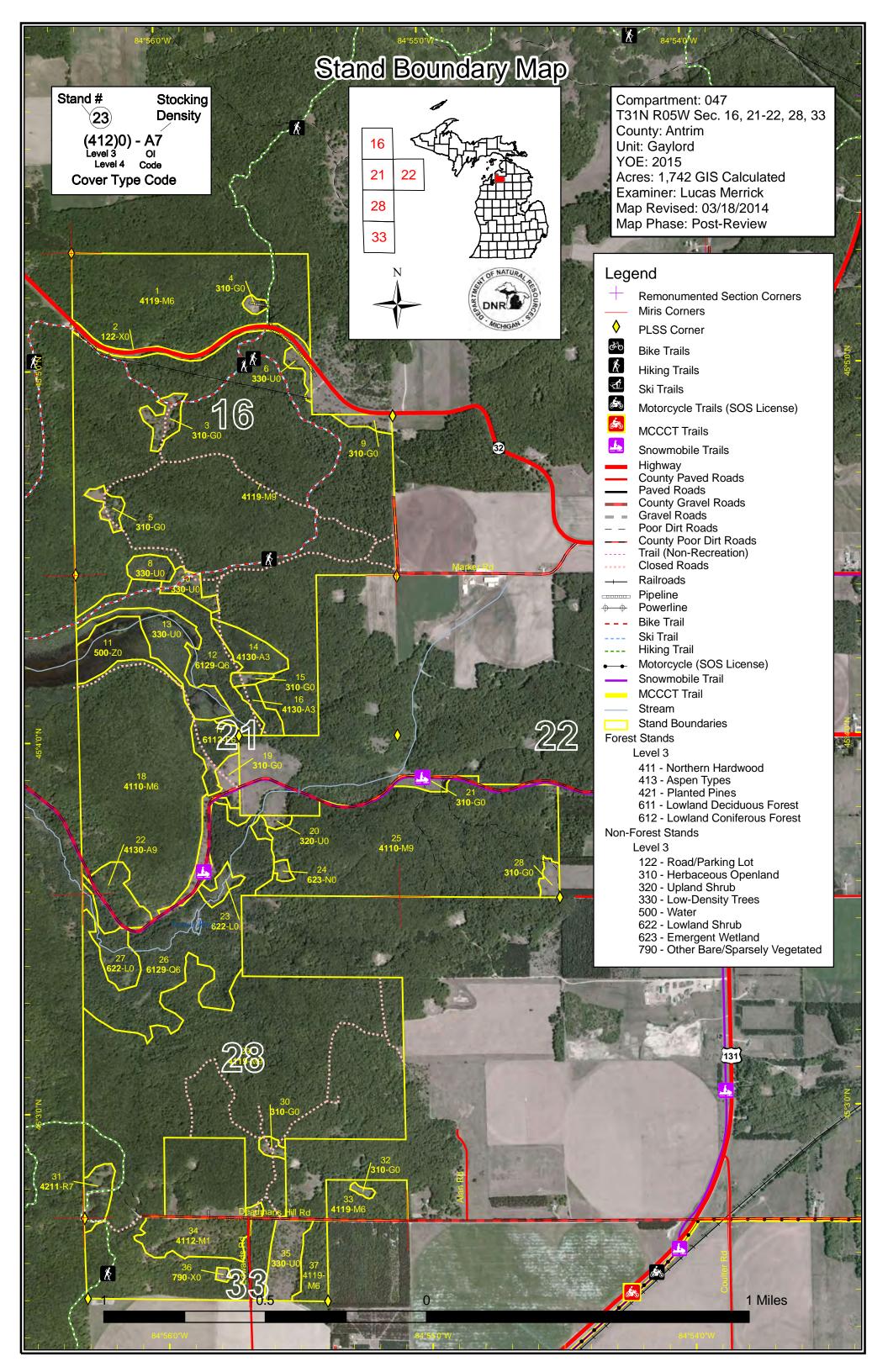
The following reports from the Inventory are attached:

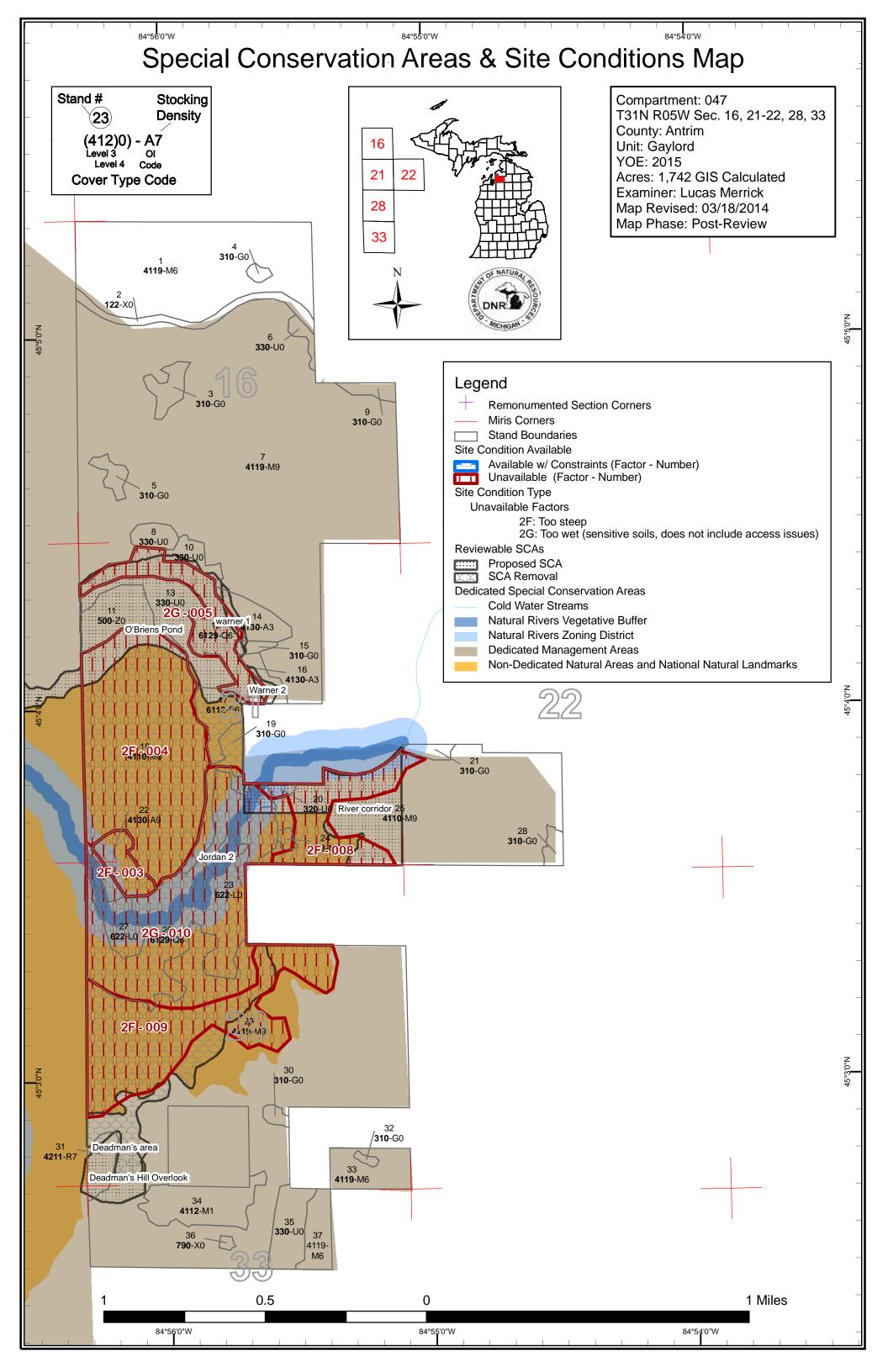
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

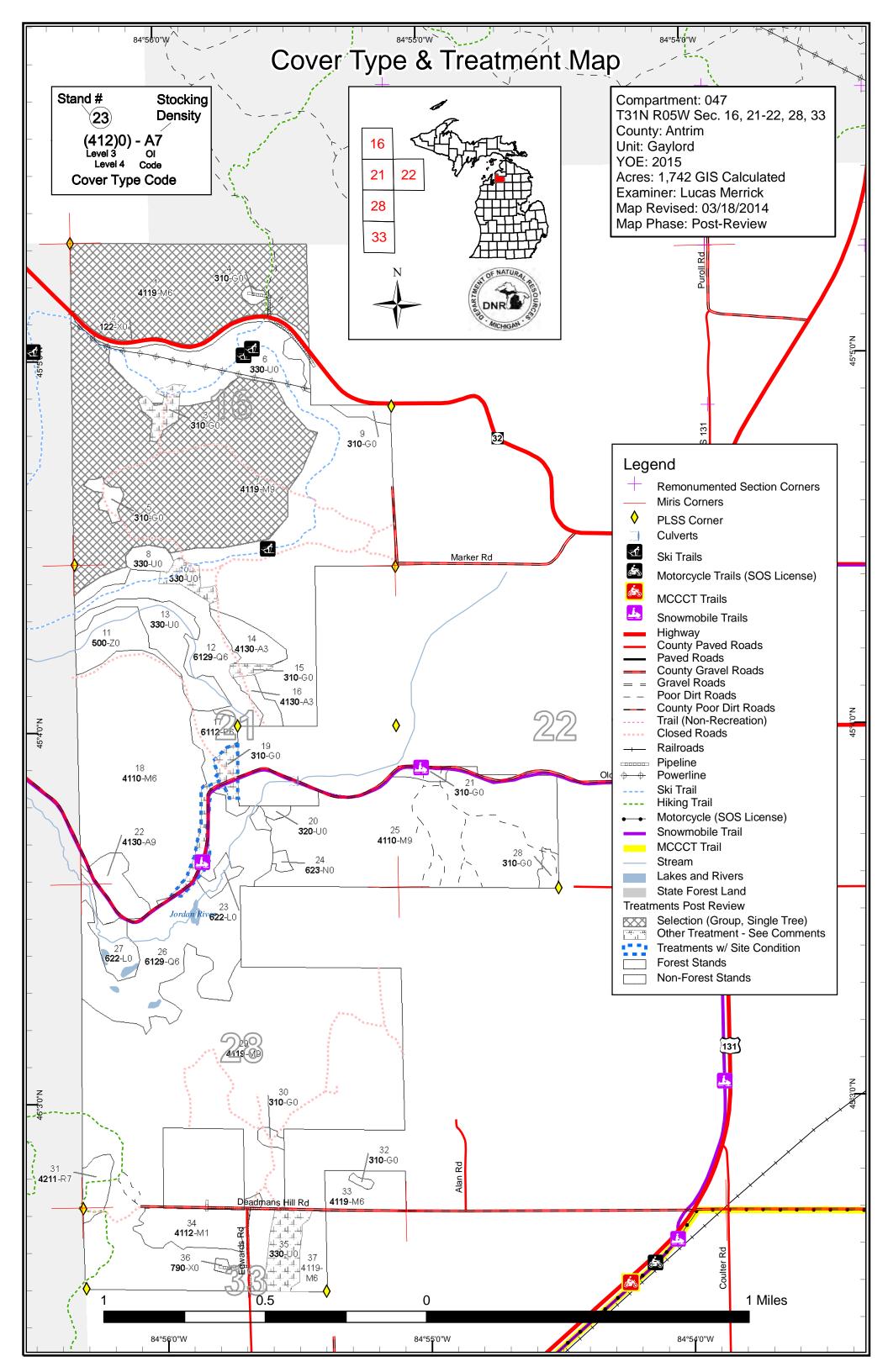
The following information is displayed, where pertinent, on the attached compartment maps:

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









Compartment 047 Year of Entry 2015

Gaylord Mgt. Unit **Lucas Merrick: Examiner**



	Age Class															
		60	70,70	Park /	Now No.	and a	Sa Sa	So So	d'all	\$ 8 S	88.00	o'a'	/a,/a	No. No.	St. A.	, pro
Aspen	0	0	19	0	0	0	0	0	13	0	0	0	0	0	32	
Bare/Sparsely Vegetated	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Herbaceous Openland	47	0	0	0	0	0	0	0	0	0	0	0	0	0	47	
Low-Density Trees	61	0	0	0	0	0	0	0	0	0	0	0	0	0	61	
Lowland Aspen/Balsam Poplar	0	0	0	17	0	0	0	0	0	0	0	0	0	0	17	
Lowland Conifers	0	0	0	0	0	0	0	110	0	38	0	0	0	0	148	
Lowland Shrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Northern Hardwood	0	0	26	0	0	0	19	595	730	0	0	0	0	0	1371	
Red Pine	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	ĺ
Total	165	0	45	17	0	0	28	706	743	38	0	0	0	0	1742	



Report 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit Year of Entry 2015

Compartment 047 Total Compartment Acres: 1,742

Acres by Treatment Type

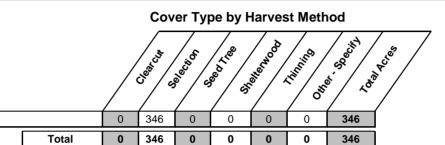
Commercial Harvest - 346 Tree Planting - 0

Northern Hardwood

Other - 0

Habitat Cut - 0

Opening Maintenance - 48



Gaylord Mgt. Unit S

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 047 Year of Entry 2015

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	52047001-Cut	123.3	4119 - Mixed Northern Hardwoods	High Density Pole	79	81-110	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Fld. Tr. Bdy Incomplete

Prescription Thin stand to a residual BA of 70 - 80. Put in at least one 75' x 75' regen gap per two acres.

Specs

Other Consider salvaging majority of beech. But be sure to leave trees showing possible signs of resistance. Do not remove all beech, make sure that Comments: some are left for mast production. If aspen removal occurs try to create regen pockets spesifically intended for aspen regen. Do not leave

residual overtopping aspen pockets. Make attempts to enhance conifer component in understory/overstory if opportunities arise. Noted one

legacy hemlock in stand.

Monitor regen. A mix of species dominated by northern hardwood species is acceptable. If regen does not meet minimum standards address Next Steps:

issue with divisions and stakeholders.

Proposed

10/01/2014 Start Date:

52047007 sm 222.7 4119 - Mixed High 81-110 Harvest Single Tree 4110 - Sugar Maple Fld. Tr. Bdy. all-Cut Northern Hardwoods Density Log Selection Association Incomplete

Prescription Single tree selection. Mark to a residual of 70-80 BA. Crop tree release. Remove majority of beech. Leave a few per acre as a mast source.

Put in at least one 75' x 75' regen gap per two acres. Specs:

Sale boundary has been designed for minimum impact to the walking/ski trail. Mark with stands in adjacent compartment. These stand have Other

Comments: been left out of YOE so they can be sold together.

Monitor regen. A mix of northern hardwoods at minimum stocking is acceptable regen. If natural regen does not meet minimum standards **Next**

Steps: address issue with other divisions/stakeholders.

<u>Proposed</u>

10/01/2014 Start Date:

3 NF 52047003-8.0 3105 - Mixed Non-Forest Other - Specify 3105 - Mixed Fld. Tr. Bdy. -NonFor **Upland Herbaceous** Management Upland Herbaceous Incomplete

Prescription opening maintenance by available means such as but not limited to manual removal, herbicide, fire, mechanical means.

Specs:

Other Comments:

Next

Steps:

Proposed

Start Date: Unspecified

NF 52047010-7.0 3301 - Low Density Non-Forest Other - Specify 3105 - Mixed Fld. Tr. Bdy. -Upland Herbaceous NonFor **Deciduous Trees** Management Incomplete

Prescription opening maintenance by available means such as but not limited to manual removal, herbicide, fire, mechanical means.

Specs:

Other

<u>Next</u>

Comments:

Steps:

<u>Proposed</u>

Start Date: Unspecified

Compartment: 047 Gaylord Mgt. Unit Report 3 -- Treatments Prescribed Year of Entry 2015 with No Limiting Factor s t а **Treatment** Acres CoverType Size BA **Treatment Treatment Cover Type** Approval n Method Objective Name **Density** Range Type **Status** Age NF_52047015-2.7 3105 - Mixed Non-Forest 3105 - Mixed Fld. Tr. Bdy. -15 Other - Specify

Management

Upland Herbaceous

Incomplete

<u>Prescription</u> opening maintenance by available means such as but not limited to manual removal, herbicide, fire, mechanical means.

Upland Herbaceous

Specs:

Other Comments:

Next Steps:

Proposed

Start Date: Unspecified

NonFor

35 NF_52047035- 16.5 3302 - Low Density Non-Forest Other - Specify 3204 - Mast Fld. Tr. Bdy. - NonFor Conifer Trees Management Producing Shrub Incomplete

<u>Prescription</u> opening maintenance by available means such as but not limited to manual removal, herbicide, fire, mechanical means.

Specs:

Other Comments:

Next Steps:

Proposed

Start Date: Unspecified

Total Treatment

Acreage Proposed: 380.3

Gaylord Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 047 a Site Condition s Year of Entry 2015 t а **Treatment** CoverType Size BA **Treatment Treatment Cover Type Approval** n Method Objective Status Name **Density** Age Range Type NF_52047019-13.3 3103 - Rubus-Fern Non-Forest Other - Specify 3105 - Mixed Fld. Tr. Bdy. -19 NonFor Management **Upland Herbaceous** Incomplete

<u>Prescription</u> opening maintenance by available means such as but not limited to manual removal, herbicide, fire, mechanical means.

Specs:

Other Lots of scotch pine seeding in.

Comment:

<u>Next</u> <u>Steps:</u>

Proposed

Start Date: Unspecified

<u>Limiting Factor</u> 2G: Too wet (sensitive soils, does not include access issues)

Total Treatment

Acreage Proposed: 13.3

Report 5 – Site Conditions

Gaylord Mgt. Unit

Lucas Merrick: Examiner

Compartment 047 Year of Entry 2015

Availability for Management Total Acres Acres Dominant Site Conditions Acres Available Not Available No 2G 2F

32	19	13	Aspen	19		13
17	13	4	Lowland Aspen/Balsam Poplar	13	3	0
148	0	148	Lowland Conifers	0	147	1
1370	1043	327	Northern Hardwood	1,043	30	297
9	9		Red Pine	9		
1,576	1,084	492	Total Forested Acres	1,084	181	311
	69%	31%	Relative Percent			

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
003	Not Available 2F: Too steep 13		13	1C: Other dept or div proc/practices			
C	Comments:						
004	Not Available	2F: Too steep	155	1C: Other dept or div proc/practices			
	Comments: /ery Steep. Also pa	art of a Non-designated natur	al area.				
005	Not Available	2G: Too wet (sensitive soils, does not include access issues)	38				
C	Comments:						
800	Not Available	2F: Too steep	46	1C: Other dept or div proc/practices			
	Comments: Come portions part	of a non-designated natural a	irea SCA				

Report 5 – Site Conditions

Gaylord Mgt. Unit

Lucas Merrick: Examiner

Compartment 047 Year of Entry 2015

009	Not Available	2F: Too steep	100	1C: Other dept or div proc/practices					
С	Comments:								
S	Steep topography, also part of a non-designated natural area.								
010	Not Available	2G: Too wet (sensitive soils, does not include access issues)	172						
С	Comments:								
S	Swamp complex around the Jordan river. Multiple seeps flowing out of hardwoods into conifer. This area is part of a non-designated natural area.								

Gaylord Mgt. Unit

Compartment: 047 Year of Entry: 2015



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
Deadman's Hill Overlook Comments Trail head parking and overlo	Concentrated Recreation Area	Trail Head	SCA	17.9
River corridor Comments Inaccessible are of the valley	Habitat Areas or Corridors	Habitat Corridor	SCA	54.4
O'Briens Pond Comments inaccessible are of the valley	Habitat Areas or Corridors	Habitat Corridor	SCA	118.4
Warner 2 Comments accessible	Habitat Areas or Corridors	Habitat Corridor	SCA Removal	2.7
warner 1 Comments accessible	Habitat Areas or Corridors	Habitat Corridor	SCA Removal	3.4
Deadman's area Comments accessible	Habitat Areas or Corridors	Habitat Corridor	SCA Removal	19.1
Jordan 2 Comments Non-designated natural area	Habitat Areas or Corridors offers appropriate protection	Habitat Corridor	SCA Removal	437.9

Gaylord Mgt. Unit Compartment: 047



ERA = Ecological Reference Area



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	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical sites of cultural and historical significance that may occur upon bottomlands. They include thousands of Native American settly and British outposts, nineteenth century logging camps, mine the Great Lakes, there are shipwrecks and other remains doctobe identified by Natural heritage data from the State Historic Fithis compartment will be implemented in such a manner as to the sensitive nature of this information, no further detail about	n terrestrial areas and Great Lakes lements and burial sites, as well as French is and homesteads. Beneath the waters of umenting the maritime trade. Such sites may preservation Office. Proposed treatments in maintain the integrity of these sites. Due to
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen co stocked trout populations and those of other coldwater fish sp year to year. Coldwater streams in Michigan typically provide to contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	ecies (e.g., slimy sculpin) to persist from these conditions due to substantial
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Various proposed for legal dedication, but for which legal dedication by nomination process is defined by Part 351, Wilderness and Naturion Environmental Protection Act, 1994 PA 451. The program is a require the submittal of a Natural Areas Nomination Packet to proposed sites in various stages of review. Final dedication of Areas is accomplished through legislative action.	y legislature has not occurred. The atural Areas, of the Natural Resources and dministered by the DNR. Nominations the DNR. This is an active program, with
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific marules, as governed by Part 5, Department of Natural Resource 324.504). Section 38 of the Administrative Procedures Act (Mothe promulgation of rules. This is an active program, with one DNR.	es, of the NREPA (MCL 324.502(2) and CL 24.238) provides for public requests for
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness ar and Environmental Protection Act, 1994 PA 451. The program require the submittal of a Natural Areas Nomination Packet to proposed sites in various stages of review. Final dedication of Areas is accomplished through legislative action.	is administered by the DNR. Nominations the DNR. This is an active program, with
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from approved distance from the river centerlines. The Natural River most Natural Rivers. The Vegetative Buffer ranges from 25 to and Vegetative Buffers for each Natural River see the table log folder.	ers Zoning District is a 400 foot buffer for 100 feet. To view specific Zoning Districts

S t	Gaylord Mgt. Unit			Report 8	Forested	Stands Compartment: 047 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	High Density Pole	123.3	79	81-110	A fully stocked northern hardwood stand.
7	4119 - Mixed Northern Hardwoods	High Density Log	459.5	79	81-110	A good quality hardwood stand.
12	6129 - Mixed Coniferous Lowland Forest	High Density Pole	37.9	91	81-110	Mixed conifer swamp. Open water.
14	4130 - Aspen	High Density Sapling	12.7	27	51-80	A regenerating aspen stand with scattered hardwood.
16	4130 - Aspen	High Density Sapling	6.0	27	51-80	A regenerating aspen stand w/ mixed hardwoods. Aspen in good condition.
17	6112 - Lowland Aspen	High Density Pole	16.9	38	51-80	Lowland aspen stand w/ a variety of hardwoods and mixed conifer in the understory.
18	4110 - Sugar Maple Association	High Density Pole	155.9	82	81-110	Hardwood stand found on a large hill. Fairly open in the understory with patches of thick beech and ironwood regen.
22	4130 - Aspen	High Density Log	13.2	82	111-140	Stand on southwest facing hillside. Aspen and hdwd are variable throughout in regards to size and quality. Location to lowland may make aspen management desirable.
25	4110 - Sugar Maple Association	High Density Log	174.6	82	81-110	A rolling northern hardwood stand.
26	6129 - Mixed Coniferous Lowland Forest	High Density Pole	110.5	71	111-140	Conifir swamp around the Jordan River. Multiple streams and seeps.
29	4119 - Mixed Northern Hardwoods	High Density Log	399.7	80	81-110	Large hardwood stand that has had multiple trearments over last 30 years.
31	42110 - Planted Red Pine	Low Density Log	9.4	66	81-110	Dead man's hill over look. Open with pockets of red pine, white pine, white spruce and mixed deciduous.
33	4119 - Mixed Northern Hardwoods	High Density Pole	19.0	67	51-80	A northern hardwood stand.
34	4112 - Maple, Beech, Cherry Association	Low Density Sapling	26.1	26	1-50	A regenerating hardwood site with open areas of hardwood brush. Small islands of low quality sawlog hardwoods.
37	4119 - Mixed Northern Hardwoods	High Density Pole	12.6	76	81-110	A lower quality northern hardwood stand. Clumpy with poor form.

Compartment: 047 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	122 - Road/Parking Lot	12.4	Unspecified	Unspecified	M-32 ROW
3	3105 - Mixed Upland Herbaceous	8.0	No	Low	A small grass and upland brush opening.
4	3104 - Degraded	1.9	Unspecified	Unspecified	Two wells located on site.
5	3103 - Rubus-Fern	4.9	No	Low	An open frost pocket type area with juniper shrubs, bracken fern, and blackberry.
6	330 - Low-Density Trees	3.4	Unspecified	Unspecified	An opening adjacent to M32.
8	3302 - Low Density Conifer Trees	6.5	Unspecified	Unspecified	A blueberry lowland area filling in with trees.
9	3105 - Mixed Upland Herbaceous	4.6	Unspecified	Unspecified	
10	3301 - Low Density Deciduous Tree	7.0	No	Low	An open area filling in with trees.
11	50 - Water	20.1	Unspecified	Unspecified	Water and sedge. Minor snag component.
13	3302 - Low Density Conifer Trees	28.2	Unspecified	Unspecified	Majority of standing timber is dead. There are a few islands with tamarack, spruce, fir, and misc hdwds.
15	3105 - Mixed Upland Herbaceous	2.7	No	Low	A small opening.
19	3103 - Rubus-Fern	13.3	No	Low	An open area with scattered cherry, service berry, and other misc shrubs.
20	3204 - Mast Producing Shrub	1.9	Unspecified	Unspecified	open area with cherry brush
21	310 - Herbaceous Openland	4.1	Unspecified	Unspecified	A grassy opening.
23	6220 - Alder/willow	4.8	No	Unspecified	Stand created by a small beaver damn. Standing dead timber throughout.
24	623 - Emergent Wetland	1.9	Unspecified	Unspecified	Very wet. A large seep flowing out of the hillside.
27	6220 - Alder/willow	14.0	Unspecified	Unspecified	Alder and scattered mixed conifer.

Report 9 - Nonforested Stands

Compartment: 047 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
28	310 - Herbaceous Openland	4.1	Unspecified	Unspecified	Open area with sedge, bracken, grass, knappweed, and a single basswood clump.
30	3103 - Rubus-Fern	2.5	Unspecified	Unspecified	An opening covered with bracken fern and raspberry
32	310 - Herbaceous Openland	1.2	Unspecified	Unspecified	A small open field.
35	3302 - Low Density Conifer Trees	16.5	No	Medium	An open area filling in with scotch pine, cherry brush, and sugar maple.
36	790 - Other Bare/Sparsely Vegetate	1.1	Unspecified	Unspecified	well site