COMPARTMENT REVIEW PRESENTATION

GAYLORD FOREST MANAGEMENT UNIT

COMPARTMENT: 40

ENTRY YEAR: 2013
ACREAGE: 2,364
COUNTY: Charlevoix

Revision Date: 04/01/2011

Stand Examiner: Ric Barta

Legal Description: T33N R04W Sec. 19-21, 28-30

Management 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: Most of this compartment falls with the wide flat valley of the Springbrook drainage and is vegetated with wetland coniferous associations. The uplands, located in the southwest corner, northwest corner and along its eastern edge, are covered primarily with hardwoods. Upland terrain varies from rolling to severe, including part of the west slope of the Chandler Hills. The low, level wetland areas are underlain with Tawas-Carbondale mucks. The upland areas are dominated by soils of the Kalkaska-Leelanau and Leelanau-Emmet associations, characterized as nonhydric soils with varying ratios of sand to loam in the surface horizons.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Two thirds of the compartment in state ownership. Much if the private land is cleared but very little is being farmed.

Unique, Natural Features: The compartment's combination of swamp and surrounding hardwoods present ideal habitat for red shouldered hawks. The Springbrook is also notable.

Archeological, Historical, and Cultural Features: Railroad grades from the logging era can be found in the swamp in Sections 19 and 20.

Special Management Designations or Considerations: A Director's Order prohibits the use of motorized vehicles in Section 21 and the north half of Section 28.

Watershed and Fisheries Considerations: Portions of the North Branch Spring Brook Creek and the South Branch of Spring Brook Creek, as well as their tributaries, flow through this compartment. Both of these stream systems are Type 1 designated trout streams within the Bear River watershed. These streams are not stocked, and their trout populations are supported by natural reproduction. The South Branch of Spring Brook was sampled by Fisheries Division in 2009 and was found to be a "classic brook trout nursery water" with "high quality groundwater" inputs (Cwalinski 2009). Shade, limiting sediment input, and woody debris recruitment are all crucial to maintaining a high quality trout stream system such as Spring Brook. Restricting cutting to outside of the appropriate buffers will help to maintain temperatures and the overall health of the watershed. As always, the appropriate BMP's should be applied when working in the proximity of surface water.

Wildlife Habitat Considerations: This compartment consists of a mix of northern hardwoods, a small component of aspen and a lowland complex associated with Spring Brook creek and various drainages. The lowland complex is utilized by white-tailed deer, black bear, various amphibians and furbearers. In the upland portion stands 4, 11, 22, 32, 34, 40, and 68 are going to be treated to provide structural diversity within these stands and the compartment. The southeast corner of this compartment contains a heavy component of Northern Red Oak that gets heavily used during good acorn production years by a variety of wildlife species.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of a mixture of coarse-textured glacial end moraine deposits (high ground) and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 100 and 400 feet. Beneath the glacial drift is the Antrim Shale. This shale is quarried for shale/clay elsewhere in the State. One gravel pit is located on the moraine deposits in Section 33. All State lands located on these moraines have excellent gravel potential. Oil and gas potential in the area is primarily for the Antrim Shale gas play. The area is near the limit of the Antrim Shale and may be too risky to drill. All of the State land in the area is currently leased for oil and gas development.

Vehicle Access: Access is good throughout the compartment.

Survey Needs: Some survey assistance may be needed in Section 28.

Recreational Facilities and Opportunities: This compartment has the Michigan Cross Country Cycle Trail (MCCCT) running through section 30 and 31. There is a boating access site on Cochran Lake in section 21.

Fire Protection: No foreseen problems

Additional Compartment Information:

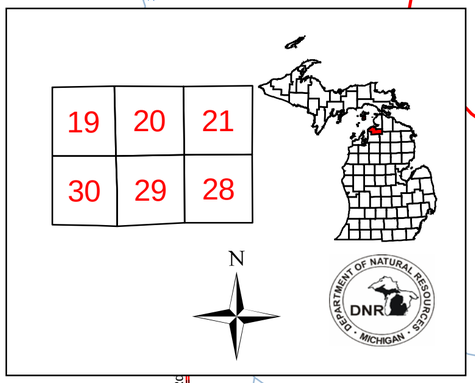
- **The following 3 reports from the IFMAP Inventory System are attached:**
  - **Cover Type by Age Class**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - **Base feature information, stand numbers, cover types**
  - **Proposed treatments**
  - **Proposed road access system**
  - **Suggested potential and current SCA's**

Cover Type & Treatment Map

Compartment 040
T33N, R04W, Sec. 19 - 21, 28 - 30
County: Charlevoix
Unit: Gaylord
YOE: 2013
Acres: 2,357 GIS Calculated
Stand Examiner: Ric Barta
Map Revised: 5/27/2011
Map Phase: Pre-Review

Stand # 23
Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code



Legend

- Bridges
- Powerlines
- Metal Post
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- County Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Bike Trail
- Horse Trail
- Hiking Trail
- Ski Trail
- Motorcycle (DNR Sticker)
- Motorcycle (SOS License)
- ORV Trail
- ORV Route
- Snowmobile Trail
- MCCCT Trail

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)

Forest Stands
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands
Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland

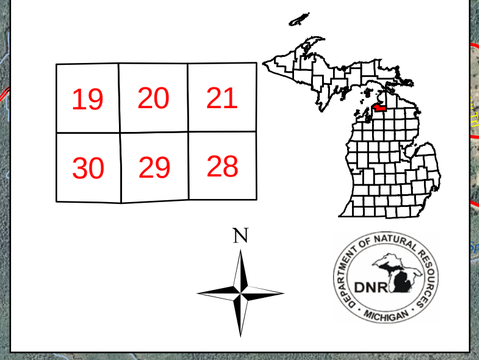
1 0.5 0 1 Miles

84°53'0"W 84°52'0"W 84°51'0"W 84°50'0"W 84°49'0"W 84°48'0"W 84°47'0"W
45°14'0"N 45°13'0"N

Stand Boundary Map

Compartment 040
T33N, R04W, Sec. 19 - 21, 28 - 30
County: Charlevoix
Unit: Gaylord
YOE: 2013
Acres: 2,357 GIS Calculated
Stand Examiner: Ric Barta
Map Revised: 5/27/2011
Map Phase: Pre-Review

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code



Legend

- Miris Corners
- Powerlines
- Metal Post
- County Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- MCCCT Trail
- Snowmobile Trail
- Motorcycle (DNR Sticker)
- Motorcycle (SOS License)
- ORV Trail
- ORV Route
- Hiking Trail
- Ski Trail
- Bike Trail
- Horse Trail
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

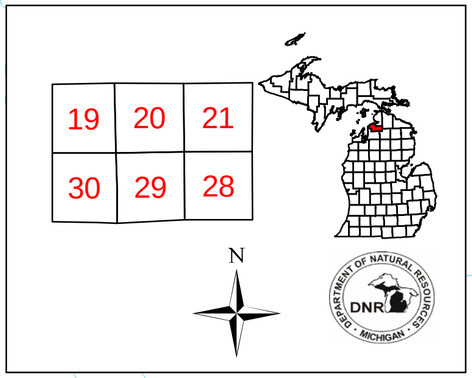
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland

1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

Compartment 040
T33N, R04W, Sec. 19 - 21, 28 - 30
County: Charlevoix
Unit: Gaylord
YOE: 2013
Acres: 2,357 GIS Calculated
Stand Examiner: Ric Barta
Map Revised: 5/27/2011
Map Phase: Pre-Review

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code



Legend
- Miris Corners
- Stand Boundaries

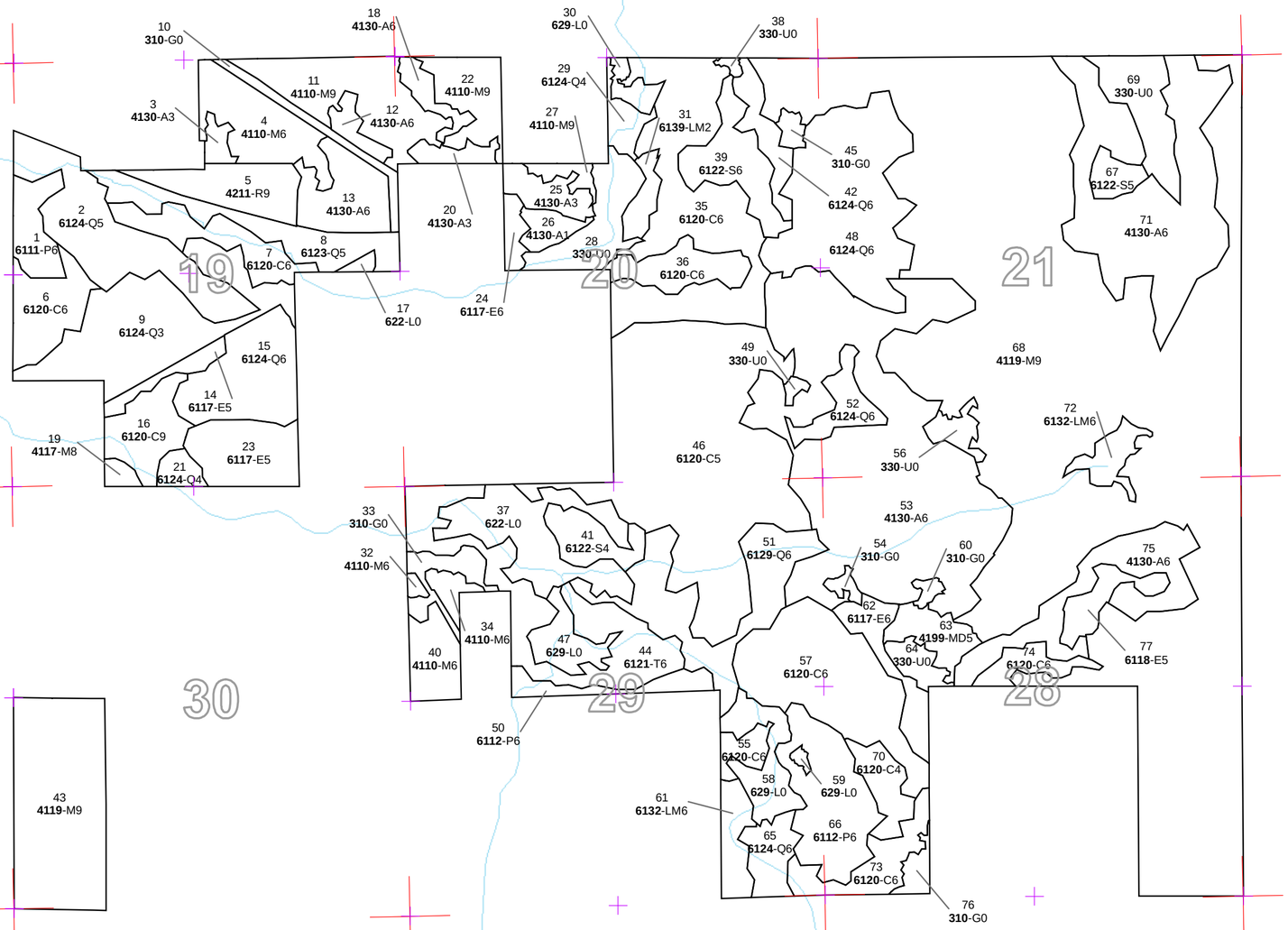
Dedicated Special Conservation Areas
- Cold Water Streams

Forest Stands

Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland



1 0.5 0 1 Miles

84°52'0"W 84°51'0"W 84°50'0"W 84°49'0"W 84°48'0"W 84°47'0"W
45°15'0"N 45°14'0"N 45°13'0"N

Table 1 – Total Acres by Cover Type and Age Class

Gaylord Mgt. Unit **Compartment 040 Year of Entry 2013**

Richard Barta : Examiner

Age Class

	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	Total
Aspen	0	27	0	36	129	182	0	0	0	0	0	0	0	0	0	**374**
Cedar	0	0	0	0	12	0	0	0	26	20	6	97	0	250	0	**411**
Herbaceous Openland	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**30**
Low-Density Trees	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**59**
Lowland Aspen/Balsam Poplar	0	0	0	39	0	0	0	14	0	0	10	0	0	0	0	**63**
Lowland Conifers	0	0	0	0	0	0	0	28	87	24	58	0	0	83	61	**342**
Lowland Deciduous	0	0	0	0	0	7	0	26	30	0	0	0	0	0	0	**62**
Lowland Mixed Forest	0	0	0	0	0	12	0	0	0	7	0	0	9	0	0	**28**
Lowland Shrub	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**76**
Lowland Spruce/Fir	0	0	0	0	0	0	7	0	0	0	0	14	23	0	0	**44**
Mixed Upland Deciduous	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	**13**
Northern Hardwood	0	0	0	0	0	0	0	0	690	91	0	0	0	0	0	**780**
Red Pine	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	**22**
Tamarack	0	0	0	0	0	0	0	0	0	0	0	0	52	0	0	**52**
Total	**166**	**27**	**0**	**75**	**142**	**200**	**19**	**68**	**854**	**142**	**75**	**110**	**85**	**334**	**61**	**2357**

Table 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2013

Compartment 040
Total Compartment Acres: 2357

Acres by Treatment Type

Commercial Harvest - 446	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	58	0	0	0	0	0	**58**
Northern Hardwood	0	366	0	0	0	0	**366**
Red Pine	22	0	0	0	0	0	**22**
Total	**80**	**366**	**0**	**0**	**0**	**0**	**446**

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	52040004-Cut	28.5	4110 - Sugar Maple Association	High Density Pole	77	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood thinning. Protect elm and oak.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	52040005-Cut	22.4	42110 - Planted Red Pine	High Density Log	74	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: Final harvest.

Other Comments: Try to protect the few oak saps and poles that are present. This won't be easy given the size of the pine.

Next Steps: Replant red pine.

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	52040011-Cut	20.3	4110 - Sugar Maple Association	High Density Log	72	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood thinning.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22	52040022-Cut	18.7	4110 - Sugar Maple Association	High Density Log	76	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood thinning.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32	52040032-Cut	1.3	4110 - Sugar Maple Association	High Density Pole	80	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood thinning.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
34	52040034-Cut	4.9	4110 - Sugar Maple Association	High Density Pole	80	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood thinning.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
40	52040040-Cut	14.9	4110 - Sugar Maple Association	High Density Pole	80	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood selection. Mark to 80-90.

Other Comments: Mark lightly along the drainage, if at all.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
68	52040068-Cut_small	277.3	4119 - Mixed Northern Hardwoods	High Density Log	73	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Specs: Conventional hardwood selection. Thin to 80-90. May want to make two sales out of this.

Other Comments: Thin with beech bark disease and emerald ash borer in mind. Protect steep slopes which are mostly in the south end.

Next Steps:

Total Treatment Acreage Proposed: 388.4

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						

Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2013

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status

Prescription Specs:

Other Comments:

Next Steps:

Total Treatment Acreage Proposed: **0**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6111 - Lowland Balsam Poplar	High Density Pole	14.0	63	51-80	
2	6124 - Lowland Spruce-Fir	Medium Density Pole	48.1	126	51-80	
3	4130 - Aspen	High Density Sapling	3.9	4		
4	4110 - Sugar Maple Association	High Density Pole	28.5	77	111-140	
5	42110 - Planted Red Pine	High Density Log	22.4	74	81-110	
6	6120 - Lowland Cedar	High Density Pole	21.6	126	81-110	Thick fir regeneration.
7	6120 - Lowland Cedar	High Density Pole	20.2	107	141-170	
8	6123 - Lowland Fir	Medium Density Pole	27.9	60	51-80	
9	6124 - Lowland Spruce-Fir	High Density Sapling	60.9	Uneven Age	51-80	Some blowdown. Fir regeneration is ubiquitous and heavy locally under a broken canopy of trees that survived one or more blowdown events.
11	4110 - Sugar Maple Association	High Density Log	38.1	72	111-140	
12	4130 - Aspen	High Density Pole	5.8	28	1-50	
13	4130 - Aspen	High Density Pole	22.8	28	1-50	
14	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	6.6	48	1-50	
15	6124 - Lowland Spruce-Fir	High Density Pole	35.2	126	51-80	Poor form in general. Some blowdown. Wet.
16	6120 - Lowland Cedar	High Density Log	19.8	81	171-200	Stream runs throught it.
18	4130 - Aspen	High Density Pole	7.1	28	111-140	
19	4117 - Mixed N. Hardwood - Pine	Medium Density Log	2.9	75	1-50	Trees are open grown.
20	4130 - Aspen	High Density Sapling	5.8	4		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6124 - Lowland Spruce-Fir	Low Density Pole	5.1	89	1-50	
22	4110 - Sugar Maple Association	High Density Log	18.7	76	111-140	
23	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	24.4	70	1-50	
24	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	5.2	70	51-80	
25	4130 - Aspen	High Density Sapling	10.6	4		Regeneration is somewhat patchy.
26	4130 - Aspen	Low Density Sapling	6.7	4		This is the south part of a recent clearcut. It didn't regenerate as well as the north half but I would expect it to catch up eventually. It is lower ground so it may come back with more fir.
27	4110 - Sugar Maple Association	High Density Log	4.4	73	81-110	
29	6124 - Lowland Spruce-Fir	Low Density Pole	7.0	82	1-50	LOTS of blowdown. Lots of deciduous mortality as if it has been flooded though it is not underwater now.
31	6139 - Mixed Lowland Forest	Medium Density	6.8	82	1-50	
32	4110 - Sugar Maple Association	High Density Pole	1.3	80	111-140	Manage with 32 and 33.
34	4110 - Sugar Maple Association	High Density Pole	4.9	80	111-140	Manage with 31 and 32.
35	6120 - Lowland Cedar	High Density Pole	76.6	107	81-110	
36	6120 - Lowland Cedar	High Density Pole	16.5	76	51-80	
39	6122 - Black Spruce	High Density Pole	23.3	110	81-110	
40	4110 - Sugar Maple Association	High Density Pole	14.9	80	111-140	Manage with 31 and 33.
41	6122 - Black Spruce	Low Density Pole	13.7	105	1-50	An "island" of spruce in a tag alder swamp.
42	6124 - Lowland Spruce-Fir	High Density Pole	12.2	72	111-140	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4119 - Mixed Northern Hardwoods	High Density Log	69.7	86	81-110	Cut ten years ago except slopes.
44	6121 - Tamarack	High Density Pole	52.0	117	51-80	
46	6120 - Lowland Cedar	Medium Density Pole	150.7	140	51-80	Poor form and patchy stocking.
48	6124 - Lowland Spruce-Fir	High Density Pole	74.8	74	111-140	Wet in places. Several seeps and small streams that need protection. This stand can be viewed as one big seep, with the resulting streams coming together as they flow westward. Significant blowdown. Species composition and size class both vary considerably.
50	6112 - Lowland Aspen	High Density Pole	10.1	91	51-80	
51	6129 - Mixed Coniferous Lowland Forest	High Density Pole	46.3	97	81-110	
52	6124 - Lowland Spruce-Fir	High Density Pole	12.0	93	51-80	Stream passes through.
53	4130 - Aspen	High Density Pole	181.6	41		All young aspen, some of which was last cut in 1983 and some in 1970.
55	6120 - Lowland Cedar	High Density Pole	6.4	97	81-110	
57	6120 - Lowland Cedar	High Density Pole	60.2	127	111-140	
61	6132 - Mixed Lowland Forest with Cedar	High Density Pole	11.7	41	51-80	
62	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	14.9	68	81-110	
63	4199 - Other Mixed Upland Deciduous	Medium Density Pole	12.6	52	1-50	
65	6124 - Lowland Spruce-Fir	High Density Pole	12.3	83	111-140	Contains streams. Some blowdown. Large patch of fir regeneration.
66	6112 - Lowland Aspen	High Density Pole	39.0	28	1-50	High water table.
67	6122 - Black Spruce	Medium Density Pole	6.9	54	51-80	
68	4119 - Mixed Northern Hardwoods	High Density Log	596.9	73	111-140	Heavy to oak in southeast. Ash is heavy in places. Beech bark disease is present.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	6120 - Lowland Cedar	Low Density Pole	12.3	30	1-50	
71	4130 - Aspen	High Density Pole	91.5	34	51-80	
72	6132 - Mixed Lowland Forest with Cedar	High Density Pole	9.3	115	141-170	Stream and headwaters. Lots of deer activity; appears to be a travel corridor between the Howard Rd swamp and the oaks to the east.
73	6120 - Lowland Cedar	High Density Pole	17.8	137	111-140	Stream passes through.
74	6120 - Lowland Cedar	High Density Pole	9.1	78	171-200	Multiple streams present. More to conifers in the west end.
75	4130 - Aspen	High Density Pole	37.8	37	51-80	Beaver activity.
77	6118 - Lowland Deciduous with Cedar	Medium Density Pole	11.2	60	1-50	Very wet with flowing water and evidence of flooding. Signs of beaver activity.

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
10	3105 - Mixed Upland Herbaceous	8.0	N\A	Unspecified	
17	6220 - Alder/willow	1.6	N\A	Unspecified	Scattered conifer saplings.
28	3303 - Mixed Low Density Trees	21.7	N\A	Unspecified	Mixed bag. Lots of mortality, perhaps from recent beaver flooding. Better stocked in the south with fir, p. birch, r. maple and b. ash. Tag alder and cattails common.
30	629 - Mixed non-forested wetland	5.3	N\A	Unspecified	Heavy mortality in standing water. Beaver flooding is assumed.
33	3105 - Mixed Upland Herbaceous	10.1	N\A	Unspecified	
37	6220 - Alder/willow	38.4	N\A	Unspecified	
38	3302 - Low Density Conifer Trees	1.1	N\A	Unspecified	Scattered conifer saplings in a marsh.
45	3105 - Mixed Upland Herbaceous	3.0	N\A	Unspecified	
47	629 - Mixed non-forested wetland	12.1	N\A	Unspecified	
49	3301 - Low Density Deciduous Tree	1.5	N\A	Unspecified	
54	3105 - Mixed Upland Herbaceous	2.4	N\A	Unspecified	
56	3301 - Low Density Deciduous Tree	6.1	N\A	Unspecified	
58	629 - Mixed non-forested wetland	17.8	N\A	Unspecified	
59	629 - Mixed non-forested wetland	1.1	N\A	Unspecified	
60	3105 - Mixed Upland Herbaceous	2.0	N\A	Unspecified	
64	3301 - Low Density Deciduous Tree	6.8	N\A	Unspecified	
69	3303 - Mixed Low Density Trees	21.9	N\A	Unspecified	Beaver ponds and meadows with expected mortality. Patchy with live trees and shrubs.

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
76	3105 - Mixed Upland Herbaceous	4.6	N\A	Unspecified	

7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments

8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.