# DNR IN INC.

## **Compartment Review Presentation**

**Gwinn Forest Management Unit** 

Compartment 32090 Entry Year 2016

Acreage: 1879.79180000

**County Alger** 

Management Area: Dead Horse Moraines

Revision Date: 2014-09-16

Stand Examiner: John Hamel

**Legal Description:** 

T44N, R22W, Sections 19, 30, 31

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

Improve the quality of the Northern Hardwoods stands through selective management while maintaining the conifer content and den trees for wildlife. Additional goals are to provide age-class distribution of Aspen by harvesting selected stands.

#### Soil and topography:

Terrain is mostly level to slightly rolling. Soils range from organic swamps and poorly drained loamy soils to well drained loams. Major soil series include Kalkaska, Munising, Keweenaw.

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

With the exception of only one 40 acre private holding, this compartment is comprised entirely of state land.

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

No Unique Natural Features known.

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

No Archeological, Historical, or Cultural Features known.

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

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

Two branches of Deer Creek flow through this compartment.

#### Wildlife Habitat Considerations:

Compartment 90 is found within the Dead Horse Moraines Management Area; on Ground Moraines in southeastern Marquette, southwestern Alger, and northwestern Delta Counties. The dominant Natural Communities are poor conifer swamps, mesic northern forests, and dry northern forests. Major forest cover types include Northern Hardwood, Aspen, and Mixed Lowland Conifer. This management area contains a large proportion of hardwood forest which regenerates well partly due to the heavier snow cover and lower deer numbers than the southern portion of this Management Area. The most significant wildlife management issues in the management area are: mast (hard and soft); mature forest (upland deciduous, especially aspen and mixed forest with little understory); course woody debris, early successional forest, and deer wintering complexes.

The following have been identified as featured species for the Dead Horse Moraines Management Area: black bear, pileated woodpecker, ruffed grouse, and white-tailed deer.

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

Section 19, 30 & 31, T44N-R22W, Alger County

Surface sediments consist of medium-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician Trenton Group subcrops below the glacial drift. The Trenton is quarried for stone/dolomite elsewhere in the UP. A gravel pit is located one mile to the south, and potential appears to be good. This compartment has never been leased for metallic exploration. There is no economic oil and gas production in the UP.

#### **Vehicle Access:**

Vehicle access to the compartment is poor due to the wet soils. Most management activities will be limited to the winter months.

#### **Survey Needs:**

No survey work is needed at this time.

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

Recreational activity for this area is primarily for ruffed grouse and whitetail deer hunting.

#### **Fire Protection:**

This compartment has a very low risk for wildfire.

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

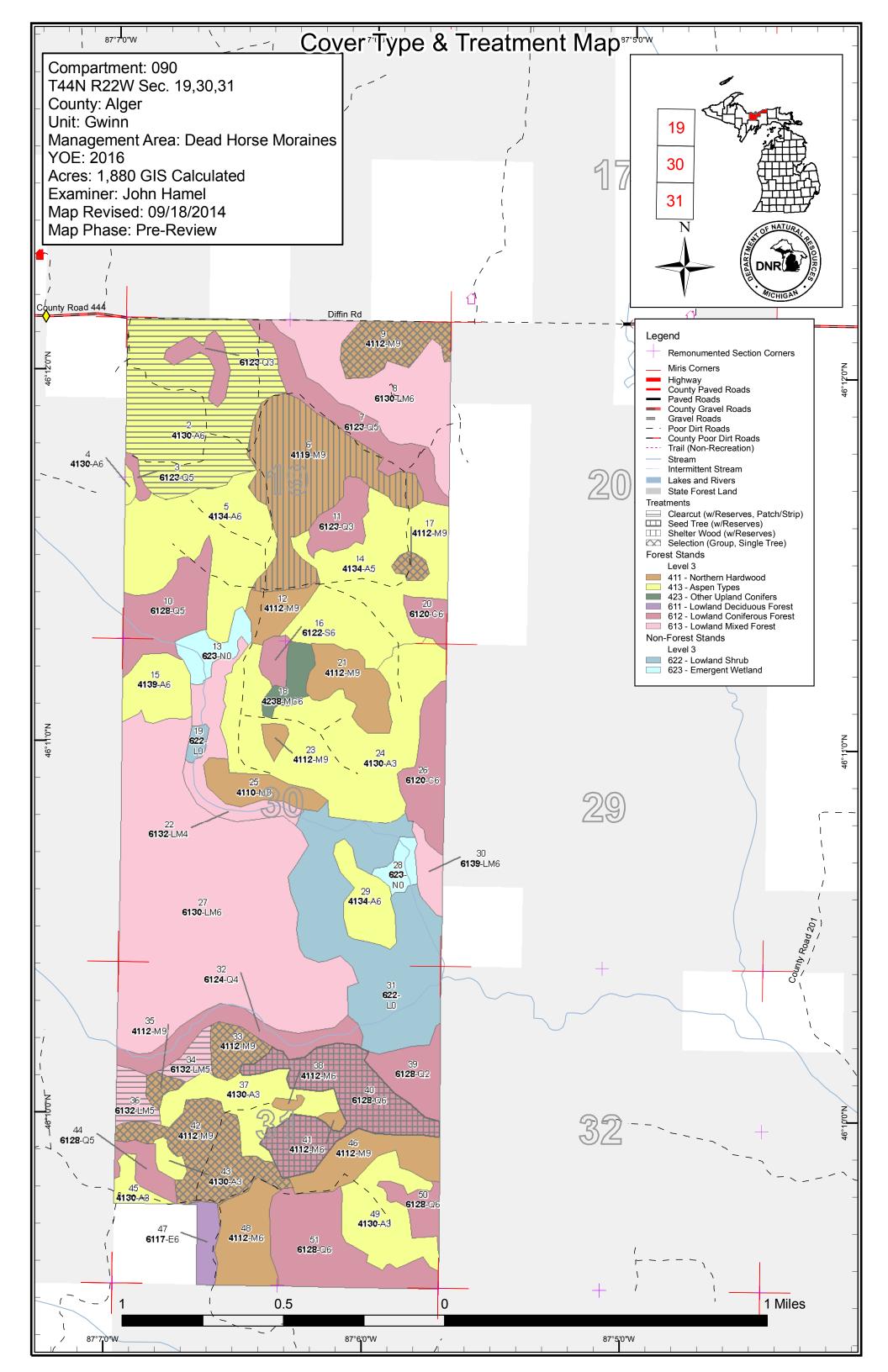
The following reports from the Inventory are attached:

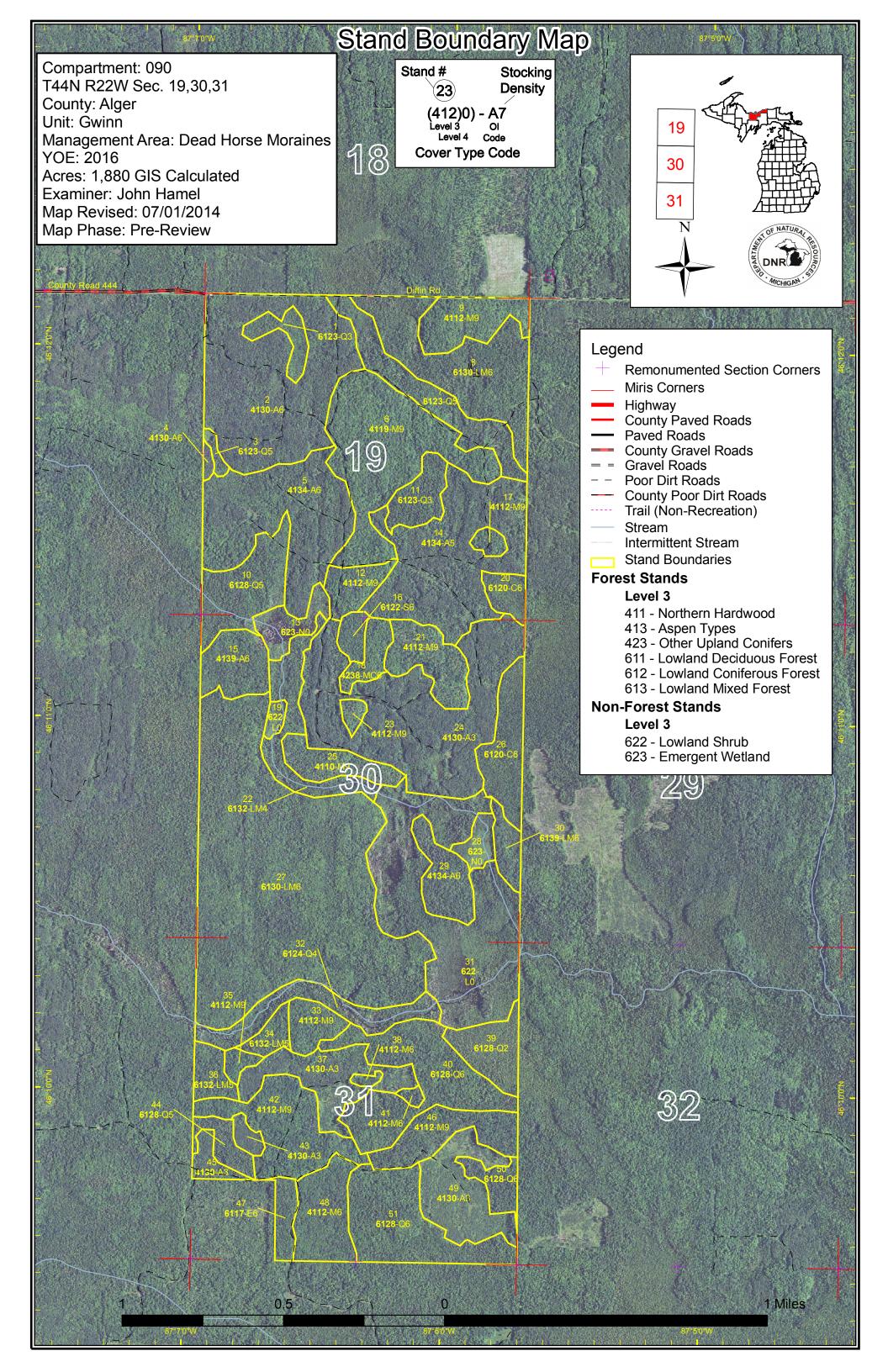
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

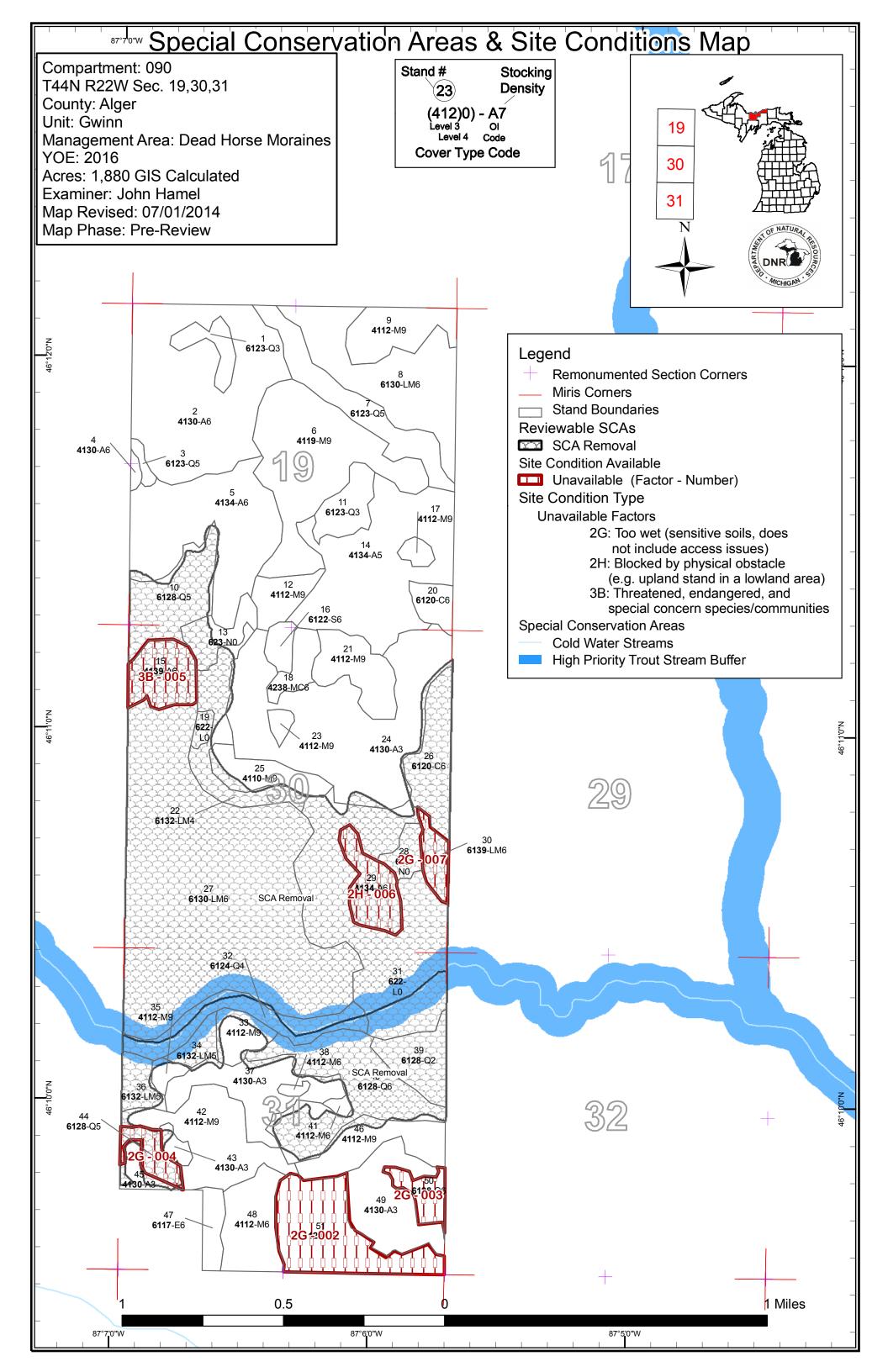
The following information is displayed, where pertinent, on the attached compartment maps:

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

Details on the road access system







John Hamel : Examiner

Gwinn Mgt. Unit



Compartment 090 Year of Entry 2016

Ane Class

Age Class																
		80	, a 70	Sep.	N. S.	D. D	S. S	88/	18 /	Son of	888	00,00	70,70	70× /30°	N. S.	, s <sup>to</sup>
Aspen	42	54	131	190	129	0	0	0	23	25	0	0	0	0	593	ĺ
Cedar	0	0	0	0	0	0	0	40	0	0	0	0	0	0	40	
Lowland Conifers	0	0	0	56	14	93	67	0	68	12	0	0	0	0	311	
Lowland Deciduous	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10	
Lowland Mixed Forest	0	0	0	0	0	395	0	0	12	19	0	0	0	0	426	
Lowland Shrub	131	0	0	0	0	0	0	0	0	0	0	0	0	0	131	
Lowland Spruce/Fir	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7	
Marsh	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
Northern Hardwood	0	0	0	0	0	0	32	0	30	65	24	0	0	176	326	
Upland Conifers	0	0	0	0	12	0	0	0	0	0	0	0	0	0	12	
Total	197	54	131	246	155	506	99	40	133	121	24	0	0	176	1880	



# **Report 2 – Proposed Treatment Summaries**

# Gwinn Mgt. Unit Year of Entry 2016

Compartment 090
Total Compartment Acres: 1,880

### **Acres by Treatment Type**

Commercial Harvest - 407

Tree Planting - 0

Other - 0

Habitat Cut - 0

Opening Maintenance - 0

			Cov	er Ty	oe by H	larves	st Meth	nod			
		The state of the s									
Aspen Types		126	0	0	0	0	0	126			
Lowland Coniferous Forest		0	0	67	0	0	0	67			
Lowland Mixed Forest		20	0	0	0	0	0	20			
Northern Hardwood	0	102	0	92	0	0	193				
	Total	147	102	67	92	0	0	407			

Compartment: 090 Gwinn Mgt. Unit Report 3 -- Treatments Prescribed Year of Entry 2016 with No Limiting Factor s t а **Treatment** Acres CoverType Size BA **Treatment Treatment Cover Type** Approval n Method Objective d Name Density Age Range Type **Status** Cmpt. Review 2 32090002-Cut 126.5 High 42 Harvest Clearcut 413 - Aspen 4130 - Aspen Density Proposal Pole Prescription Clearcut harvest. mark out 7, 1/2 acre retention patches. Specs: Other Comments: <u>Next</u> Steps: <u>Proposed</u> Start Date: 10/01/2015 32090006-Cut 91.6 4119 - Mixed High 111-140 Harvest Shelterwood 411 - Northern Cmpt. Review Northern Hardwoods Density Log Proposal Hardwood Prescription Shelterwood harvest. Mark down to 50 BA reserving high quality crop trees. In areas of better quality selectively harvest. favor High Quality Specs: Maple. <u>Other</u> Comments: <u>Next</u> regeneration check per current work instructions Steps: <u>Proposed</u> Start Date: 10/01/2015 32090009-Cut 27.4 4112 - Maple, High 111-140 Harvest Single Tree 411 - Northern Cmpt. Review Beech, Cherry Density Log Selection Hardwood Proposal Association Prescription Selectively mark hardwoods, using marking guidelines, managing for best tree in place. Target basal area 70-90. Create canopy gaps where appropriate, to establish regeneration, and maintain stand diversity Leave obvious wildlife trees. Leave all cedar, hemlock, cherry, and smaller conifers. <u>Other</u> Comments:

Specs:

**Next** Regeneration checks per current Work Instructions

Steps:

Proposed

Start Date: 10/01/2015

32090017-Cut 4.6 4112 - Maple, High 90 111-140 Harvest Single Tree 411 - Northern Cmpt. Review 17 Beech, Cherry **Density Log** Selection Hardwood Proposal Association

Prescription Selectively mark hardwoods, using marking guidelines, managing for best tree in place. Target basal area 70-90. Create canopy gaps where appropriate, to establish regeneration, and maintain stand diversity. Leave obvious wildlife trees. Leave all cedar, hemlock and smaller conifers. Specs:

<u>Other</u> Comments:

**Next** Regeneration checks per current Work Instructions

Steps:

**Proposed** 

10/01/2015 Start Date:

Compartment: 090 Gwinn Mgt. Unit Report 3 -- Treatments Prescribed Year of Entry 2016 with No Limiting Factor s t а **Treatment** Acres CoverType Size BA **Treatment Treatment Cover Type** n Method Objective d Name Density Age Range Type 14.3 4112 - Maple, High 80 111-140 Single Tree 33 32090033-Cut Harvest Beech, Cherry Density Log Selection

Approval **Status** 

411 - Northern Cmpt. Review Hardwood Proposal Association

Prescription Selectively mark hardwoods, using marking guidelines, managing for best tree in place. Target basal area 70-90. Create canopy gaps where appropriate to establish regeneration, and maintain stand diversity. Leave obvious wildlife trees. Leave all cedar, hemlock, cherry, yellow birch

and smaller conifers.

Other Comments:

**Next** Regeneration survey as per work instructions.

Steps:

Specs:

**Proposed** 

Start Date: 10/01/2015

34 32090034-Cut 8.6 6132 - Mixed Medium 95 Harvest Clearcut with 613 - Lowland Cmpt. Review Lowland Forest with Density Mixed Forest Proposal Reserves Cedar Pole

Prescription Clearcut this stand leaving 2 tenth acre retention patches around clumped cedar if practicable. Reserve cedar

Specs:

Other Comments:

**Next** Regeneration survey as per work instructions.

Steps:

**Proposed** 

10/01/2015 Start Date:

32090035-Cut 4.8 4112 - Maple, High 80 111-140 Single Tree 411 - Northern Cmpt. Review 35 Harvest Beech, Cherry **Density Log** Selection Hardwood Proposal

Association

Prescription Selectively mark hardwoods, using marking guidelines, managing for best tree in place. Target basal area 70-90. Create canopy gaps where appropriate to establish regeneration, and maintain stand diversity. Leave obvious wildlife trees. Leave all cedar, hemlock, cherry, yellow birch,

and smaller conifers.

<u>Other</u> Comments:

**Next** Regeneration survey as per work instructions.

Steps:

Specs:

Proposed

10/01/2015 Start Date:

32090036-Cut 6132 - Mixed Medium 80 613 - Lowland Cmpt. Review 36 11.6 Harvest Clearcut with Lowland Forest with Density Reserves Mixed Forest Proposal

Cedar Pole

Prescription Clearcut this stand leaving 2 tenth acre retention patches around clumped cedar if practicable. Reserve cedar

Specs:

Other Comments:

<u>Next</u> Regeneration survey as per work instructions.

Steps:

**Proposed** 

Start Date: 10/01/2015 Gwinn Mgt. Unit

# Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 090 Year of Entry 2016

DEPARTME	DNR DNR
`	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
40	32090040-Cut	67.1	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	60		Harvest	Seed Tree with Reserves	612 - Lowland Coniferous Forest	Cmpt. Review Proposal

<u>Prescription</u> Seed tree with reserves harvest. leave approximately 10-15 seed trees per acre between spruce and fir. Leave all cedar and hemlock. All other

Specs: trees are to be cut.

Other Comments:

Next Regeneration survey as per work instructions.

Steps:

s

**Proposed** 

Start Date: 10/01/2015

42 32090042-Cut 50.4 4112 - Maple, High 90 141-170 Harvest Group Selection 411 - Northern Cmpt. Review Beech, Cherry Density Log Hardwood Proposal

Association

<u>Prescription</u> Selectively mark hardwoods, using marking guidelines, managing for best tree in place. Target basal area 70-90. Create canopy gaps where <u>Specs:</u> appropriate to establish regeneration, and maintain stand diversity. Leave obvious wildlife trees. Leave all cedar, hemlock, cherry, and smaller

conifers

Other Comments:

Next Regeneration survey as per work instructions.

Steps:

**Proposed** 

<u>Start Date:</u> 10/01/2015

**Total Treatment** 

Acreage Proposed: 406.9

Gwinn Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 090 a Site Condition s Year of Entry 2016 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Method Objective Status Name Range Density Age Type #Type! #Type! **Prescription** Specs: Other Comment: **Next** Steps: <u>Proposed</u> #Type! Start Date:

**Total Treatment** 

**Limiting Factor** 

Acreage Proposed: 0.0

# **Report 5 – Site Conditions**

Gwinn Mgt. Unit

John Hamel: Examiner

Compartment 090 Year of Entry 2016

Avail	ability for I						
Total	Acres	Acres		Domina	nt Site	e Con	ditions
Acres	Available	Not Available		No	3B	2H	2G
592	544	48	Aspen	544	25	23	0
40	40		Cedar	40			
311	231	79	Lowland Conifers	231	0		79
10	10		Lowland Deciduous	10			
425	415	10	Lowland Mixed Forest	415			10
7	7		Lowland Spruce/Fir	7			
326	326		Northern Hardwood	326			
12	12		Upland Conifers	12			
1,724	1,586	137	Total Forested Acres	1,586	25	23	90
	92%	8%	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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	2G: Too wet (sensitive soils, does not include access issues)	57	No Limiting Factor			
С	omments:						
003	Not Available	2G: Too wet (sensitive soils, does not include access issues)	12				
С	comments:						
004	Not Available	2G: Too wet (sensitive soils, does not include access issues)	11				
С	comments:						

# Report 5 – Site Conditions

Gwinn Mgt. Unit
John Hamel: Examiner

Compartment 090 Year of Entry 2016

005	Not Available	3B: Threatened, endangered, and special concern species/communities	25	2G: Too wet (sensitive soils, does not include access issues)
	comments: his stand is part of	f a proposed DHA		
006	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	23	
C	comments:			
007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	11	
C	comments:			

Gwinn Mgt. Unit

Compartment: 090 Year of Entry: 2016



#### 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						
SCA Removal	Other SCA		SCA Removal	169.9						
Comments Coded as POG in the past. There is no evidence old growth features in this area.										
SCA Removal	Potential Old Growth		SCA Removal	589.7						
Comments Coded as POG in the pa	ast. There is no evidence old growth fea	tures in this area.								

Gwinn Mgt. Unit Compartment: 090
Year of Entry 2016



# 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	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical ristes of cultural and historical significance that may occur upon to bottomlands. They include thousands of Native American settler and British outposts, nineteenth century logging camps, mines at the Great Lakes, there are shipwrecks and other remains documbe identified by Natural heritage data from the State Historic Prethis compartment will be implemented in such a manner as to make the sensitive nature of this information, no further detail about log	errestrial areas and Great Lakes nents and burial sites, as well as French and homesteads. Beneath the waters of nenting the maritime trade. Such sites may servation Office. Proposed treatments in aintain the integrity of these sites. Due to
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 see conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildl and Waterfowl Production Areas, deer wintering complexes in lo openings and savannas. Habitat areas are distinct from critical hendangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperations.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more rendangered species, and are not
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

s t	Gwin	n Mgt. Unit		Report 8 –	Forested \$	Stands Compartment: 090 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6123 - Lowland Fir	High Density Sapling	11.4	42		
2	4130 - Aspen	High Density Pole	126.5	42		Young Aspen stand just geting in to the pole size classes.
3	6123 - Lowland Fir	Medium Density Pole	3.0	40		very wet portions are flooded by beaver
4	4130 - Aspen	High Density Pole	2.0	40		
5	4134 - Aspen, Spruce/Fir	High Density Pole	89.8	31		
6	4119 - Mixed Northern Hardwoods	High Density Log	91.6	Uneven Age	111-140	This stand has good advanced regeneration
7	6123 - Lowland Fir	Medium Density Pole	38.4	31		Poor stocking arvested in 1983
8	6130 - Fir, Aspen, Maple	High Density Pole	70.9	50		
9	4112 - Maple, Beech, Cherry Association	High Density Log	27.4	80	111-140	Good regeneration in spots, trace hemlock and yellow birch
10	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	38.3	50		wet slow growing area
11	6123 - Lowland Fir	High Density Sapling	17.7	30		
12	4112 - Maple, Beech, Cherry Association	High Density Log	15.0	Uneven Age	81-110	this stand was harvested in 2012 it has good advanced regeneration
14	4134 - Aspen, Spruce/Fir	Medium Density Pole	100.1	31		poor quality aspen slow growing due to shallow water table
15	4139 - Aspen, Mixed Deciduous	High Density Pole	24.6	92	81-110	stand is very wet, converting to Red Maple
16	6122 - Black Spruce	High Density Pole	7.4	50		
17	4112 - Maple, Beech, Cherry Association	High Density Log	4.6	90	111-140	fair quality red and suger maple
18	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	11.7	40	51-80	Poor quality Hardwood and softwood conifer
20	6120 - Lowland Cedar	High Density Pole	10.1	77		

S t	Gwinr	Mgt. Unit		Report 8 –	Forested	Stands Compartment: 090 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4112 - Maple, Beech, Cherry Association	High Density Log	27.6	90	81-110	Harvest 2012
22	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	31.0	50		very wet ground
23	4112 - Maple, Beech, Cherry Association	High Density Log	3.9	100	81-110	harvested in 2012
24	4130 - Aspen	High Density Sapling	130.8	25		
25	4110 - Sugar Maple Association	High Density Log	19.7	100	81-110	harvested in 2012 , lightly thinned.
26	6120 - Lowland Cedar	High Density Pole	29.8	77		
27	6130 - Fir, Aspen, Maple	High Density Pole	292.8	50		mostly wet ground with higher spots of better hardwoods. Part of DHA. poor accessability.
29	4134 - Aspen, Spruce/Fir	High Density Pole	22.8	85		
30	6139 - Mixed Lowland Forest	High Density Pole	10.7	90		
32	6124 - Lowland Spruce- Fir	Low Density Pole	31.8	50		
33	4112 - Maple, Beech, Cherry Association	High Density Log	14.3	Uneven Age	111-140	
34	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	8.6	95		Over mature stand with with lots of dead and down trees
35	4112 - Maple, Beech, Cherry Association	High Density Log	4.8	Uneven Age	111-140	
36	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	11.6	80		Over mature stand with with lots of dead and down trees
37	4130 - Aspen	High Density Sapling	40.7	15		Young aspen portionsa cut in 1997 and 2009, good regeneration.
38	4112 - Maple, Beech, Cherry Association	High Density Pole	1.9	90	51-80	small red maple stand
39	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density	23.0	50		
40	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	67.1	60		

S t	Gwin	n Mgt. Unit		Report 8 –	Forested S	tands	Compartment: 090 Year of Entry: 2016		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN 6	
41	4112 - Maple, Beech, Cherry Association	High Density Pole	2.2	85	51-80				
42	4112 - Maple, Beech, Cherry Association	High Density Log	50.4	Uneven Age	141-170		good quality stand		
43	4130 - Aspen	High Density Sapling	5.1	17					
44	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	11.2	80					
45	4130 - Aspen	High Density Sapling	8.1	17					
46	4112 - Maple, Beech, Cherry Association	High Density Log	30.8	90	51-80	Recently harve	sted in 2009. Good quality ha	rdwood	
47	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.5	50					
48	4112 - Maple, Beech, Cherry Association	High Density Pole	32.2	60	51-80	poor qu	ality red maple on low ground		
49	4130 - Aspen	High Density Sapling	42.0	5		cut	in 2009 good regeneration		
50	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	11.9	90					
51	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	57.3	80					

Compartment: 090 Year of Entry: 2016



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
13	623 - Emergent Wetland	15.0	No	Unspecified	
19	622 - Lowland Shrub	3.7	No	Unspecified	
28	623 - Emergent Wetland	9.0	No	Unspecified	
31	622 - Lowland Shrub	127.0	No	Unspecified	