Compartment Review Presentation

Grayling Forest Management Unit

Compartment 205
Entry Year 2015
Acreage: 1,087
County Crawford
Management Area: Camp Grayling

Revision Date: 06/12/2013

Stand Examiner: Joan Charlebois

Legal Description:

T27N R04W Sections 27, 34, 35

Identified Planning Goals:

To maintain riparian and forest health, structural and species diversity, and overall productivity while providing for sustainable multiple uses. And additionally, on Military Board Lands in the west half of section 34, to provide an area that allows for National Guard training.

Soil and topography:

The west half of the compartment occupies predominantly Grayling sands on shallow to rolling terrain. Moving east toward the river, the terrain levels out and the soil type shifts to Croswell-AuGres sands. The river corridor and cedar swamps are on saturated organic soils such as Tawas-Lupton and AuSable-Bowstring mucks.

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

Private property bordering the compartment's north side is largely used for seasonal recreation. Both seasonal and year-round residences occur on the east side of the AuSable River. The Hanson Game Refuge is to the south, and state ownership in the west half of section 34 is Military Board Land, where military training takes precedence over resource management activities. The DNR will coordinate all prescribed activities with the National Guard to ensure compatibility with their training needs. The east half of section 34 and section 35 west of the AuSable were purchased with Land Trust funds in 1994. This area, informally known as the Williams Tract, is being managed for walk-in public access. A concrete slab remains at the former Williams cabin site on the AuSable River.

Unique Natural Features:

The mainstream of the AuSable, a designated Natural River, borders the compartment's east edge There is the potential for uncommon birds and reptiles to occur along the riparian corridor, as well as for dry prairie plants in the upland grassy openings.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The AuSable River is a High Conservation Value Area (HCVA), with associated Cold Water Stream and Riparian Special Conservation Areas (SCA). State land within section 27 and the west half of section 34 are part of the Military Area SCA.

Watershed and Fisheries Considerations:

The mainstream of the AuSable is a high quality cold water trout stream. A Fisheries Division sand trap maintenance site is accessed through this compartment, and fish habitat has been enhanced through an on-going project of strategically placing trees within the stream channel.

Wildlife Habitat Considerations:

The compartment’s oak, aspen and conifer cover types, and riparian corridor provide habitat for a variety of game and non-game wildlife species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Marshall Sandstone. The Marshall has been used as a building stone in the past. The nearest gravel pit is located in Section 34 and potential is good on the upland areas. The entire Compartment is leased for oil and gas development. The nearest production is Beaver Creek Field, located seven miles to the south. The field has produced over 21 MBO from the Devonian Richfield and over 5 Bcf gas from the Ordovician Prairie du Chien.

Vehicle Access:

The Williams property was fenced when in private ownership and that fence was left in place after state acquisition in order to maintain the tract for walk-in public access. Vehicle traffic through the gate off Pollack Bridge Road is limited to resource management, powerline maintenance, and land-locked private property access. Holes cut in the fence and breached berms need to be re-closed.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

The Blue Bear Snowmobile/ORV Route crosses through the southwest corner of the compartment. Aside from that designated trail, the compartment has no developed sites. Dispersed recreation opportunities include fishing, hiking, hunting, canoeing and wildlife viewing.

Fire Protection:

Existing trail roads provide adequate access for fire protection. Accessable water source points on the AuSable River include Pollack Bridge and the Fisheries Division sand trap.

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**

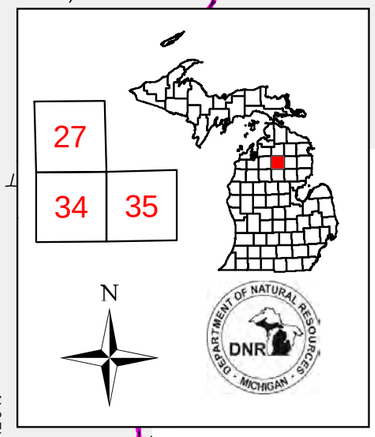
The following information is displayed, where pertinent, on the attached compartment maps:

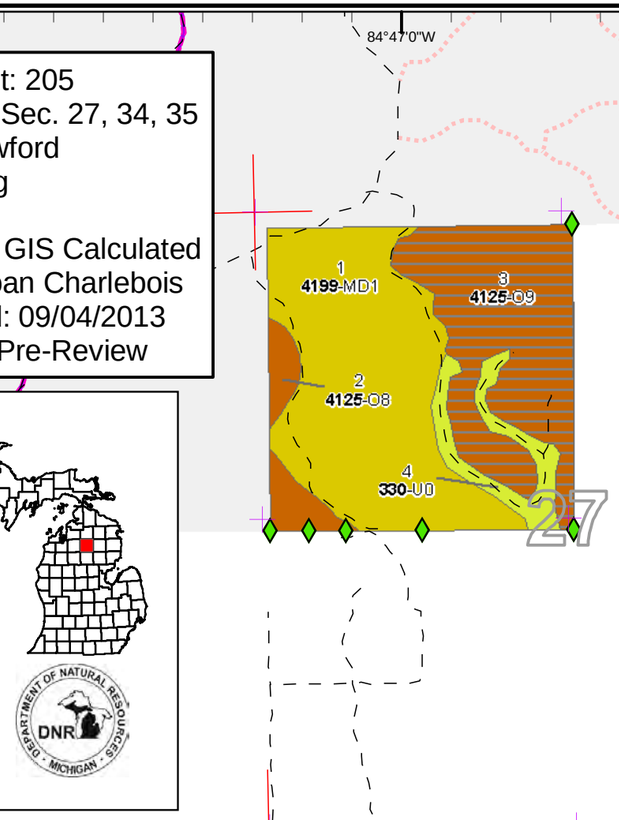
- **Base feature information, stand boundaries, cover types, and numbers**
- **Proposed treatments**
- **Site condition boundaries**
- **Details on the road access system**

Cover Type & Treatment Map

Compartment: 205
T27N R04W Sec. 27, 34, 35
County: Crawford
Unit: Grayling
YOE: 2015
Acres: 1,087 GIS Calculated
Examiner: Joan Charlebois
Map Revised: 09/04/2013
Map Phase: Pre-Review

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





Legend

- PLSS Corner
- GPS Point
- Remonumented Section Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- ORV Route
- Snowmobile Trail
- ORV Routes
- Snowmobile Trails
- Powerline
- Stream
- Intermittent Stream
- Fence
- Lakes and Rivers
- State Forest Land

Planned Regeneration

- Natural

Treatments w/ Site Condition

- Treatments w/ Site Condition

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- Other Treatment - See Comments

Forest Stands

Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated

Stand Boundary Map

Compartment: 205
T27N R04W Sec. 27, 34, 35
County: Crawford
Unit: Grayling
YOE: 2015
Acres: 1,087 GIS Calculated
Examiner: Joan Charlebois
Map Revised: 09/04/2013
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Stand # 23 — Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
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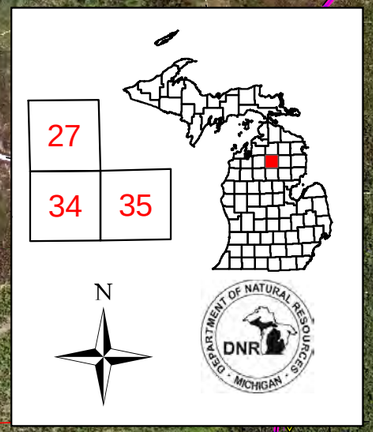

Legend

- PLSS Corner
- GPS Point
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
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- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
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- ORV Routes
- Snowmobile Trails
- Powerline
- Fence
- Stand Boundaries

Forest Stands
Level 3
411 - Northern Hardwood
412 - Oak Types
419 - Mixed Upland Deciduous
421 - Planted Pines
422 - Natural Pines
431 - Upland Mixed Forest
612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
330 - Low-Density Trees
622 - Lowland Shrub
790 - Other Bare/Sparsely Vegetated

0.5 0 1 Miles

Special Conservation Areas & Site Conditions Map

Compartment: 205
T27N R04W Sec. 27, 34, 35
County: Crawford
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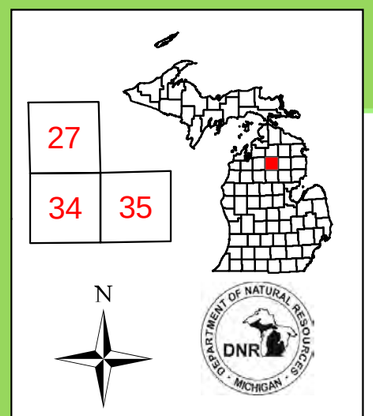

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 / Level 4 — OI Code
Cover Type Code

Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries

Site Conditions - Availability

- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)

Site Condition Type

Available Factors W/ Constraints

- 5B: Retention for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality

Unavailable Factors

- 1A: Federal/State/Local Law

Dedicated Special Conservation Areas

- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Essential Habitat (Kirtland Warbler)
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands

1 — 4199-MD1
2 — 4125-O8
3 — 4125-O9
4 — 330-U0
5 — 4126-O8
6 — 4211-R4
7 — 4125-O1
8 — 4211-R4
9 — 4199-MD3
10 — 4126-O9
11 — 4211-R4
12 — 4199-MD2
13 — 4126-O7
14 — 4214-MC5
15 — 6125-Q4
16 — 4125-O8
17 — 622-L0
18 — 330-U0
19 — 6129-Q5
20 — 790-X0
21 — 4126-O7
22 — 6127-Q8
23 — 4125-O9
24 — 4125-O9
25 — 790-X0
26 — 4211-R5
27 — 4211-R6
28 — 4199-MD6
29 — 4211-R5
30 — 790-X0
31 — 4214-MC5
32 — 6120-C6
33 — 4119-M1
34 — 4225-MC8
35 — 622-D0
36 — 622-V0
37 — 622-V0
38 — 6126-J5
39 — 4211-R6
40 — 4214-MC6
41 — 4310-UM1
42 — 622-V0
43 — 622-V0
44 — 4211-R6
45 — 4226-MC8
46 — 4211-R6

5B - 003
5B - 003
5C - 004
5C - 006
5B - 007
5B - 005
1A - 008

27
34
35

1 0.5 0 1 Miles

84°48'0"W 84°47'0"W 84°46'0"W 84°45'0"W 84°44'0"W
44°43'0"N 44°42'0"N 44°41'0"N

Report 1 – Total Acres by Cover Type and Age Class

Grayling Mgt. Unit **Compartment 205 Year of Entry 2015**

Joan Charlebois : Examiner

Age Class

	0-9	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
Bare/Sparsely Vegetated	7	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
Bog	10	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
Cedar	0	0	0	0	0	0	0	0	0	0	0	14	0	0	**14**
Jack Pine	0	0	0	0	5	0	0	0	0	0	0	0	0	0	**5**
Low-Density Trees	18	0	0	0	0	0	0	0	0	0	0	0	0	0	**18**
Lowland Conifers	0	0	0	0	0	0	21	0	0	0	5	0	0	0	**25**
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Mixed Upland Deciduous	208	0	31	0	0	0	0	0	24	0	0	0	0	0	**262**
Natural Mixed Pines	0	0	0	0	20	0	0	0	0	11	0	0	0	0	**32**
Northern Hardwood	8	0	0	0	0	0	0	0	0	0	0	0	0	0	**8**
Oak	0	0	8	0	0	0	0	59	0	345	0	0	0	0	**412**
Planted Mixed Pines	0	0	0	67	0	0	0	0	0	0	0	0	0	0	**67**
Red Pine	0	0	0	68	144	0	0	0	0	0	0	0	0	0	**212**
Treed Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
Upland Mixed Forest	10	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
Total	**264**	**0**	**39**	**135**	**170**	**0**	**21**	**59**	**24**	**356**	**5**	**14**	**0**	**0**	**1087**

Report 2 – Proposed Treatment Summaries

Grayling Mgt. Unit
Year of Entry 2015

Compartment 205
Total Compartment Acres: 1,087

Acres by Treatment Type

Commercial Harvest - 326	Tree Planting - 0	Other - 13
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Oak Types	232	0	0	0	0	0	**232**
Planted Pines	23	0	0	0	71	0	**93**
Total	**255**	**0**	**0**	**0**	**71**	**0**	**326**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	72205003-ccr	57.2	4125 - Black, N. Pin Oak	High Density Log	96	81-110	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription Specs: Final harvest with reserves. Remove the overstory except leave approximately 3% in retention islands and leave all pine. Protect the oak regen from the 1997 harvest, but spec the RM to be cut 1" & up.

Other Comments: NOTE that at time of inventory the N-S fence near the stand's E edge is on private. The fence starts out 25' east of the survey corner at the south end. Heading north, the fence drifts closer to the property line and ends up 3' east of the survey corner at the north end.

Next Steps: Natural regen check. Acceptable regen includes a moderately-stocked mix of oak, RM & aspen. If natural regen fails, supplemental plant RP.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
16	72205016-ccr	58.7	4125 - Black, N. Pin Oak	Medium Density Log	74	51-80	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Final harvest with reserves. Remove the overstory except leave the WP, RP, and few xlog WO. Protect the oak regen. Cut the RM & BC 1" & up. No NPO retention due to poor vigor.

Other Comments: Slash load from deadfalls will complicate planting -- evaluate during harvest prep and consider spec'ing harvest to skid them. Note potential green-up concerns with adjacent 2014 YOE comp 180 stand 28 treatment and address as needed. Note snowmobile trail protection spec needs.

Next Steps: Supplemental plant JP. Regen surveys. The goal is a moderately-stocked mix of natural & artificial regen including oak, aspen & RM, along with planted JP. Plant-over the informal two-track that snakes from the stand's SW toward its NE corner. If trenching recon finds overall moderate stocking in natural regen, cancel the planting prescription.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
23	72205023-ccr	34.5	4125 - Black, N. Pin Oak	High Density Log	91	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Final harvest with reserves. Remove the overstory except leave approximately 3% in retention islands. Protect the oak regen from the 1996 thinning and the WP saplings, but cut the RM 1" & up.

Other Comments: Protect fence along east edge.

Next Steps: Supplemental plant RP. Regen surveys. The goal is a moderately-stocked mix of natural & artificial regen including oak, aspen & RM, along with planted RP. If trenching recon finds moderate stocking in natural regen, cancel the planting prescription.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	72205024-ccr	81.8	4125 - Black, N. Pin Oak	High Density Log	95	111-140	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription Specs: Final harvest with reserves. Remove the overstory except leave approximately 3% in retention islands and leave all pine. Avoid island placement where the aspen is concentrated. Encompass the former borrow pit stands with retention islands. Cut the RM 1" & up.

Other Comments: Protect the fence on the west & south sides and close all access points through those segments.

Next Steps: Natural regen survey. Natural regen goal is a moderately stocked mix of oak, aspen & RM. If natural regen fails, supplemental plant RP.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	72205027-rowthin	6.9	42110 - Planted Red Pine	High Density Pole	46	171-200	Harvest	Systematic Thinning		Cmpt. Review Proposal

Prescription Specs: Row thin treatment was approved for the 2005 YOE, set up in 2006, and is currently on proposal 72-055-06-01. Additional marking outside of designated rows will be necessary for equipment operability in areas with tight row spacing and abrupt row direction changes.

Other Comments: Note Natural Rivers restrictions.

Next Steps: None needed.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
44	72205044-rowthin	63.8	42110 - Planted Red Pine	High Density Pole	46	141-170	Harvest	Systematic Thinning		Cmpt. Review Proposal

Prescription Specs: Row thin treatment was approved for the 2005 YOE, set up in 2006, and is currently on proposal 72-055-06-01. Additional marking outside of designated rows will be necessary for equipment operability in areas with tight row spacing and abrupt row direction changes.

Other Comments: Protect the fence along the south edge. Note Natural Rivers restrictions.

Next Steps: None at this time.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
46	72205046-ccr	22.7	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	34	81-110	Harvest	Clearcut		Cmpt. Review Proposal

Prescription Specs: Final harvest with reserves. Cut all stems 1" & up except leave an approximately 3/4-acre retention island around the pocket of naturally-established RP in the stand's south-center.

Other Comments: A narrow, 2-acre strip of jack pine and oak was put on proposal 72-055-06-01. Trees were marked to leave with green in that strip. Remove that area (2005 YOE stand 56) from the proposal and set up according to the 2014 YOE stand 46 prescription. Protect the fence on the stand's south edge.

Next Steps: Plant RP, with site prep as needed to achieve full stocking. Plan site prep around maintaining an oak component (ie: 5-15%). Regen surveys.

Proposed Start Date: 10/01/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	72204_OYOE-Fish	0.5					Other	Unspecified	790 - Other Bare/Sparsely Vegetated	Cmpt. Review Proposal

Prescription Specs: Maintain site for stockpiling material dredged from sand traps.

Other Comments: Currently used for Williams Tract and AuSable Trail sand traps.

Next Steps: When the site will no longer be used for additional sand deposits, re-contour and re-vegetate with site-appropriate species as indicated in IC4287 " Vegetation Restoration of ROW, Well Sites and Other Cleared Sites on State Forest Land - NLP" or current equivalent guidance.

Proposed Start Date: 10/01/2013

Total Treatment Acreage Proposed: 326.1

Report 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	72205014-Fish	1.2	42140 - Planted Mixed Pine	Medium Density Pole	34	81-110	Other	Unspecified	790 - Other Bare/Sparsely Vegetated	Cmpt. Review Proposal

Prescription Specs: Maintain the Williams Sand Trap access pad and dredged sand stockpile site, leveling the disposal site after each use.

Other Comment: This site was approved for use during the previous YOE under FTP# F72-457. It is within a powerline corridor, alongside the sand trap access road. Use of the site must not interfere with the overhead powerline utility easement.

Next Steps: When the site will no longer be used for additional sand deposits, re-contour and re-vegetate with site-appropriate species as indicated in IC4287 " Vegetation Restoration of ROW, Well Sites and Other Cleared Sites on State Forest Land - NLP" or current equivalent guidance.

Proposed Start Date: 10/01/2013

Limiting Factor: 1A: Federal/State/Local Law

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19	72205019-Fish	1.2	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	67	51-80	Other	Unspecified	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal

Prescription Specs: Cut dispersed trees along the river for placement in the stream channel for fish habitat improvement. No cedar trees, live cavity, den or nest trees, or snags will be cut.

Other Comment: This treatment allows for completion of FTP# F72-707 that was approved in 2012 to cut approximately 200 dispersed trees along the river, to be placed in-stream with a winch.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor: 1A: Federal/State/Local Law

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45	72205045-Fish	10.2	42260 - Natural Pine, Mixed Deciduous	Medium Density Log	48	51-80	Other	Unspecified	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Cut dispersed trees along the river for placement in the stream channel for fish habitat improvement. No cedar trees, live cavity, den or nest trees, or snags will be cut.

Other Comment: This treatment allows for completion of FTP# F72-707 that was approved in 2012 to cut approximately 200 dispersed trees along the river, to be placed in-stream with a winch.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor: 1A: Federal/State/Local Law

Total Treatment Acreage Proposed: 12.6

Data updated before 2:00 PM

Report 5 – Site Conditions

Grayling Mgt. Unit

Joan Charlebois : Examiner

Compartment 205

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	5C	5B	1A
14	10	5	**Cedar**	10			5
5	5		**Jack Pine**	5			
25	20	5	**Lowland Conifers**	20			5
262	262		**Mixed Upland Deciduous**	262			
31	17	15	**Natural Mixed Pines**	17			15
8	8		**Northern Hardwood**	8			
412	412		**Oak**	241	21	150	
67	67		**Planted Mixed Pines**	67			
212	212	0	**Red Pine**	212			0
10	10		**Upland Mixed Forest**	10			
1,048	1,023	25	Total Forested Acres	851	21	150	25
	98%	2%	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		**Available**	**5B: Retention for regeneration purposes**	10				

Comments:

Treat this stand concurrent with the rest of the type in comp 179 stand 25 (63 acres) when the overstory will likely be prescribed for removal in 2021. OFS point to that effect was added to stand 25 in comp 179.

Site No.	Dominant Site Cond	Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
004		**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	5				

Comments:

Left when all adjacent stands were cc'd or deciduous species-removed. Stand is a narrow strip (2 chaines wide) along the fence, with an older abandoned fencline running up through the middle. Low volume/value/acreage.

005	**Available**	**5B: Retention for regeneration purposes**	65

Comments:

Shelterwooded in 2008. Oak regen still recruiting. Residual cored showed positive response to release. Leave the overstory this YOE, final harvest next YOE, 1" & up on the RM regen also, and plan to immediately follow-up plant with RP to boost stocking.

006	**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	17

Comments:

Oak regen in small cutting blocks gets browsed heavily in this area. Hold this YOE; final harvest next YOE along with stands 21, 11 & 14. Plan for immediate post-harvest supplemental planting with RP to boost stocking. Stands 11 & 14 would be planted to full stocking of RP (45 acres).

007	**Available**	**5B: Retention for regeneration purposes**	75

Comments:

Shelterwooded in 2007. Oak regen still recruiting. Leave the overstory this YOE; final harvest next YOE, 1" & up on the RM regen also, and plan to immediately follow-up plant with RP to boost stocking. Harvest at same time with stands 10, 11 & 14 to form one larger cutting block to distribute deer browse pressure.

008	**Not Available**	**1A: Federal/State/Local Law**	27

Comments:

Natural Rivers restricted cutting zone, 150 feet from river's edge.

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

Report 7 – 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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4199 - Other Mixed Upland Deciduous	Low Density Sapling	82.1	6		Was cut in 2007 (#641-06), 2" & up except RP & WP. On shallow rolling terrain. The lower slopes and valleys are heavier to oak and have poorly-stocked inclusions that were typed out as grassy opening stands previous YOE. Climbing onto the upper slopes, cover shifts to more RM than oak, with pockets of BTA. The regen is mostly stump origin, but there is also a single-stem oak component unrecordable in the canopy because it is <3' tall. That seedling category oak is seeing the heaviest browse. Most of the stump-origin oak is recruiting above the browse line. Residual WP & RP are scattered across the stand, mostly in the NW. See M.C.s
2	4125 - Black, N. Pin Oak	Medium Density Log	10.0	98	51-80	Was shelterwood cut by 2005, part of adjacent comp 179 harvest (#066-01), merch & up except green-marked. Mature oak residual ranges from 40-70 sq. ft. Stand's SE includes a couple acres on the flats that weren't part of the harvest because the cover was near shelterwood status already. The large cull RM and trace of NPO occur there. Regen from the cut includes stump-sprout RM & oak, mostly above the browse line. The single-stem oak is shorter and experiencing the most browse. BRO SI 65. See M.C.'s
3	4125 - Black, N. Pin Oak	High Density Log	57.2	96	81-110	Was thinned in 1997 (#045-95), spec'd to cut all aspen, RM & marked oak. Some RM & marked oak were left. The marking didn't clean up all of the supressed oak poles. The BRO saw is decent-quality. The WO is mostly small-diameter, suppressed. Understory has RM and some oak stump sprouts, with a little aspen on the perimeter. BRO SI 62. See M.C.'s
5	4126 - White, Black, N. Pin Oak	Medium Density Log	4.7	95	51-80	Dry oak site, heavy to WO & NPO with some BRO. NPO has been dropping out of the stand for some time. Slash accumulation is from deadfalls, with standing dead also common. Scattered JP in the canopy. Subcanopy has locally high cover in WO saplings, with an unrecordable seedling oak component and occasional WP saps. WO SI 48. See M.C.s
6	42110 - Planted Red Pine	Low Density Pole	27.9	41	1-50	Was cut in 2007 (#048-05), merch & up except RP. The RP had been interplanted through established oak cover, resulting in irregular, often widely-spaced rows. The RP was largely suppressed until the 2007 overstory removal, but is now responding to release. RP canopy closure across the stand ranges from <25 to >75%, with the most intact plantation occurring at the north end. Deciduous sprout regen from the cut is vigorous and will likely be recordable in the canopy by next YOE, evening out the canopy closure to 50-75%. Slash is a combination of logging residue and deadfalls. RP SI 52. See M.C.s
7	4125 - Black, N. Pin Oak	Low Density Sapling	8.5	26		Was cut by 1987 (#045-85), merch & up. Same harvest as the adjacent stand, but came back more to oak and sparser canopy cover. Poorer site in the valley, on flats. RM reduced to trace. Cherry brush common. Scattered brushy WP, RP, JP. Oak is largely stump-origin, with a portion of stems just into the pole class but not enough to call the stand pole overall. Did not record BA swings in this majority sapling stand.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
8	42110 - Planted Red Pine	Low Density Pole	9.4	39	1-50	Was cut in 2007 (#048-05), merch & up except RP. The RP had been interplanted on rolling terrain around considerable oak residual. The RP was suppressed before the deciduous overstory was removed, and is now responding to release. Oak stump sprouts from the harvest are recruiting and will likely be part of the canopy by next YOE, bringing the canopy closure up a class and making the stand a mixed pine-oak type. Slash is a combination of logging residue and deadfalls. See M.C.s
9	4199 - Other Mixed Upland Deciduous	High Density Sapling	30.9	26		Was cut by 1987 (#045-85), merch & up. On shallow rolling terrain, with cover sparser on the lower slopes. Canopy of oak & RM stump-sprouts, BTA regen, and scattered residual WP & RP. The oak is better-developed than the RM, with larger ave diam & fewer stems/clump. Most of the aspen occurs in one clone on the stand's south edge. The stand is transitioning into the pole class, but not enough to call pole overall. See M.C.s
10	4126 - White, Black, N. Pin Oak	High Density Log	16.7	94	51-80	Shallow rolling terrain. BRO-WO-RM on hilltops, transitioning to NPO-JP-WP-RP on the lower slopes to SE. Sketchy rows of underplanted RP wander through; most of those stems are subcanopy, a small amount made it into the canopy. The overmature JP & NPO have been dying out. Occasional BTA & xlog oak. One supercanopy WP. Pretty open below except where WP seeded in. BRO SI 47. See M.C.s
11	42110 - Planted Red Pine	Low Density Pole	11.6	47	51-80	Most of the stand was part of a 2007 harvest (#054-06) in which the RP was row-thinned and all else except WP was cut 2" & up. The residual planted RP distribution is highly variable, ranging from solitary rows to more intact plantation patches. Within-row spacing was tight, as close as 3 ft between trees in places. Poorly-stocked openings occur where the cover was predominantly JP & NPO; the sparse regen there is mostly oak stump sprouts and WP & JP saplings. Residual overstory WP are scattered throughout. There is a combined heavy slash load of top bundles from the harvest and deadfalls. Sketchy rows of this plantation extend into the adjacent stands to the E & W. RP SI 60, 62. See M.C.s
12	4199 - Other Mixed Upland Deciduous	Medium Density	125.4	6		Was cut in 2007 (#048-05), 2" & up. A-RM-O regen 5-10' tall, with scattered residual planted RP & some WP. Species distribution varies across the stand; some areas have high aspen coverage, other areas have moderate RM or oak cover, with all gradations in between. Oak stump sprouts generally vigorous and recruiting above the browse line. The single-stem oak component is under 3' tall and seeing the most browse. See M.C.s
13	4126 - White, Black, N. Pin Oak	Low Density Log	64.6	96	1-50	Was shelterwood cut by 2008 (#013-05), merch & up except green-marked, stated residual of 30-40 sq. ft. On shallow-rolling terrain. The residual mature oak is decent quality BRO, with WO. The scattered RP & WP residual is concentrated in the stand's west half. The regen is mostly RM stump sprouts, with oak & small pockets of BTA. The best oak cover is in the stand's W & SW. Most of the oak is still within browse range. A lot of deer use. BRO SI 62. See M.C.s

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	42140 - Planted Mixed Pine	Medium Density Pole	32.9	34	81-110	Planted RP with a lesser component of planted WP that's a few years older. Most of the WP was planted separate from the RP, in the stand's SE, but rows of WP also alternate with rows of RP in the stand's NE. The pine was planted around considerable residual JP & oak, material which is now overmature, poor quality and breaking up. In addition to the overmature component, the stand has a significant amount of naturally-established immature WP & JP. The plantation's pattern is variable; rows weave & sometimes criss-cross, in-row spacing is as close as 3 ft. The most suppressed RP are subcanopy-stature only. Occasional supercanopy WP & RP. Trace of black spruce by lowlands. Some branch flagging in the WP. Cleared powerline corridor cuts through east side, with a sand trap spoils stockpiling site on it. Small OFS wetlands. WP SI 63, RP SI 51, 54, 64. See M.C.s
15	6125 - Lowland Black Spruce, Jack Pine	Low Density Pole	3.5	103	1-50	Stand of WP & black spruce that have been slowly colonizing a pair of leatherleaf/labrador tea bogs. Some cranberry. The two bogs are separated by a shallow dry ridge which is included in the stand boundary. The north end is not much above treed bog status and contains a small lens of open water. With the progressive nature of the colonization, this stand is approaching multi-storied status.
16	4125 - Black, N. Pin Oak	Medium Density Log	58.7	74	51-80	Dry valley stand, tough site. Poor quality NPO in multiple-stem clumps and individual stems. Single-stem oak tend to have double tops, low forks; alot of asymmetrical breakage. Slash accumulation from that top breakage, and root-tipping. Oak snags common. The stand is very close to dropping a canopy closure category. Poorly-stocked inclusions common. Scattered overstory WO & cull RM (more to NE). Small clone (<2 ac.) of overmature QA in the stand's SW. Pocket of RP in the W-center. Subcanopy of black cherry & RM, with localized pockets of oak regen. Tracked vehicle turfing in the past. NPO SI 64. See M.C.'s
19	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	20.7	67	51-80	Mixed lowland conifer stand on ground ranging from year-round saturated to seasonal high water table. Cedar is concentrated on the most saturated ground in the stand's south four acres and bordering the AuSable River. On the stand's slightly higher PArVCo ground, the cover shifts to more black spruce, WP & RM. The overstory spruce spans a range of ages, but mature stems are in the minority. Black spruce, WP & balsam fir have been progressively filling in from below, moving the stand toward multi-storied status. Tag alder swale drainages cross through the stand to the river (OFS pts). Slash is from root-tip and breakage in the older components. Powerline cuts through west edge; OFS wetlands dot the cleared corridor. Fisheries Division sand trap access site is within the stand. BS SI 48. See M.C.s
21	4126 - White, Black, N. Pin Oak	Low Density Log	75.2	93	1-50	Was shelterwood cut in 2007 (#054-06), merch & up except WP & green-marked, to a stated residual of 34 sq. ft. Decent-quality residual BRO with WO saw. Occasional RP & WP pole-saw. On a shallow ridge; site & oak quality decrease on the stand's perimeter lower slopes. Sprout regen from the cut is RM with oak and patches of aspen. The RM sapling cover is at the low end of medium. Oak stump sprouts that survived are generally recruiting; a portion of the oak stumps didn't sprout or died after year 1. The single-stem seedling oak are being browsed the hardest. Slash is mostly top bundles. BRO SI 56. See M.C.s

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	6127 - Lowland Pine	Medium Density Log	1.1	107	81-110	Small lowland stand of large WP with overmature JP and some black spruce, growing on cool acid bog conditions. Leatherleaf, sheep laurel and sphagnum moss groundcover. Standing water in the springtime. WP poles and saplings filling in from below.
23	4125 - Black, N. Pin Oak	High Density Log	34.5	91	81-110	Was thinned in 1996 (#025-95), cutting all aspen, RM & marked oak. On rolling terrain. Decent quality small saw BRO & WO with largely-suppressed poles. Understory has RM & oak stump sprouts from the cut along with seed-origin regen of both. Not much above trace cover in WP saplings. A lot of deer use. BRO SI 59. See M.C.'s
24	4125 - Black, N. Pin Oak	High Density Log	81.8	95	111-140	On rolling terrain. Fair-good quality small saw-large pole BRO, with uneven BTA distribution that varies from widely-scattered stems to dense clones on the ridgetops. BTA starting to break up. WO mostly in suppressed poles. Intermediate-suppressed RM pole-sap stump clumps. While there is little canopy representation in RM, there are 300+ stems/acre in RM sap-pole material. Except for the canopy dominants, the average oak has poor crown development. The more suppressed oak are epicormic branching. Open below; occasional WP sapling. Inclusion of RP planted around 1970 in the stand's far NW that had the deciduous removed in 2007 (#048-05); also some RP rimming the borrow pits. The early 1960's harvest (encompassed mostly within Pre-Inv stand 19) fingers into this stand. BRO SI 63. See M.C.'s
26	42110 - Planted Red Pine	Medium Density Pole	24.9	43	81-110	Plantation was row-thinned: north half in 2007 (#054-06), south half in 2006 (#068-05). The RP had been planted in a valley at relatively tight row spacing except where the furrows swerved around scattered open-grown oak & RM. That deciduous residual tends to be large cull, breaking up. This stand's RP plantation acreage is reduced by inclusions: clearcut pockets, wetland buffer strips, uncut oak islands that were excluded from harvest, and two-track corridors. The second age is also on the planted RP, recorded toward the stand's middle. Slash is from logging residue and break-up of the cull oak. RP SI 56, 64, ave 60. See M.C.s
27	42110 - Planted Red Pine	High Density Pole	7.4	46	171-200	Five acres of RP plantation fragmented by inclusions: two-track road, overhead powerline corridor, and former cabin site opening. Concrete slab remains in stand's NE by the AuSable River. Small OFS wetland with black spruce in north-center. Most of the stand's older naturally-established oak, RM, WP & JP are concentrated on the stand's perimeter. Core of the plantation has good RP stocking and relatively straight rows. Variable spacing between trees in rows though; less than 3 ft in places. Second age based on adjacent stands' similar overmature JP-NPO components that run 85-95 years old. RP SI 65, 68. See M.C.s

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	4199 - Other Mixed Upland Deciduous	High Density Pole	24.0	81	81-110	Fairly heavy cut evident on the 1963 air photos, when the tract was in private ownership. They cut pretty cleanly in the aspen; there's only the occasional overmature BTA stem amongst the 50-year old poles. A fair amount of pre-commercial RM was left by the cut; that material is now 80+ years old & large pole-small saw in size. The largest residual stems were oak (medium saw now), although they did some cutting within that component. Oak stump sprouts from the harvest have weeded down to 1-2 stems/clump, are large pole-small saw in size and of nice quality (cored age 50 yrs). Two acres on the stand's NE edge were not cut; that area on the flats has large cull RM & poorer quality oak. The uneven cutting resulted in a stand that is two-aged to a varying extent across all species, but the dominant age for each species was applied in the canopy listing. Not quite enough canopy cover is in the saw class to call the stand log overall, but it's close. BTA SI 75. See M.C.s
29	42110 - Planted Red Pine	Medium Density Pole	8.2	47	81-110	Was thinned in 2007 (#054-06), designated rows and JP, oak, RM. Narrow stand with a lot of edge, planted in a shallow valley. Wide row spacing common where planting runs down an old swede-holed RR grade. Row-thin really opened it up along that grade corridor. The stand widens out at the south end; is closer to the water table and has better stocking and height. Occasional supercanopy RP on the stand margins and naturally-established WP. Stand has sub-acre openings where pockets of oak were cut out. Some oak stump sprouts from the harvest. RP SI 55 @ north end, 67 @ south end. See M.C.s
31	42140 - Planted Mixed Pine	Medium Density Pole	28.7	38	81-110	Planted WP, with a lesser component of planted RP that is a few years younger. The planted RP tends to occur in perimeter patches, but rows of that species also intermix with rows of the planted WP. The plantation's pattern is variable, almost like a KW weave, with a tendency toward wide spacing between rows and excessive stocking within rows. In addition to the planted pine, the stand has a significant naturally-established JP pole component that is in the same age cohort. That JP established best in areas where the ground is closest to the water table, such as in the SW where there is sheep laurel and traces of leatherleaf. Above the majority immature pine cover is mature-overmature JP, RP, WP & poor-quality oak; concentrated on the perimeter but also scattered across the stand. Traces of black spruce occur adjacent to lowland stands. OFS point is a small leatherleaf bog. JP SI 50, WP SI 53, 62, RP SI 58. See M.C.s
32	6120 - Lowland Cedar	High Density Pole	14.4	117	111-140	Lowland stand, mostly on saturated soils but with bands of slightly drier ground near the AuSable River. The cedar is largest and healthiest on the river floodplain. Moving west onto the saturated ground, the cedar cover is smaller diameter and stagnating. Black spruce is mixed in with the cedar and concentrated on the transition ground to the uplands. An ephemeral stream originates in the stand's NE and flows out to the river (OFS pt). BS SI 39. See M.C.s
33	4119 - Mixed Northern Hardwoods	Low Density Sapling	7.7	7		Was cut in 2006 (#068-05), 2" & up. Stand barely averages out to the forested benchmark. Predominantly RM stump sprouts, with NPO stump sprouts and single-stem oak saplings. The stump-origin oak is mostly above the browse line. The solitary oak saplings are browsed below 3'. Black cherry throughout. Occasional WP & RP sap/pole. See M.C.s

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42250 - Pine, Oak	Medium Density Log	11.3	95	51-80	Dry pine-oak stand on outwash sands pitted with wetland depressions. The stand borders two large bog stands and includes five small OFS wetlands. The canopy has two main classes: mature JP, oak, WP & RP, and and immature WP & JP. Slash accumulation is from the overmature, poor-quality oak & JP breaking up. Cull & standing dead common. The large pine are concentrated along the wetland edges. WP & JP have been filling in across the stand. As the WP subcanopy recruits, the canopy will move up a closure class. Some branching flagging in the WP. The stand's NE has a few rows of underplanted RP. WP SI 45. See M.C.s
38	6126 - Lowland Jack Pine	Medium Density Pole	5.4	44	51-80	JP growing over a seasonal high water table. Leatherleaf and sheep laurel in groundcover. The stand had been partially harvested when in private ownership, and the current pole-sapling JP cover seeded in afterwards. The resulting JP distribution is variable, tending to have established in clumps. Mature RP, WP & JP occur above the majority immature JP; those log-sized stems are scattered throughout and concentrated along the stand margins. OFS point in the NE is a small wetland with salix & leatherleaf that is separated from the lowland JP by a shallow ridge; a row of planted RP runs along that dry ridge. JP SI 56
39	42110 - Planted Red Pine	High Density Pole	36.2	33	81-110	RP was planted around varying levels of residual oak-JP-RP. Where suppression was heaviest, the planted RP is subcanopy stature, but most of the stand's RP is represented in the canopy. The JP is split between overmature saw and immature poles. The oak is all overmature. Slash is slowly building as the overmature component breaks up. Row spacing ranges from fairly uniform and straight, to swerving widely around pockets of residual. The stand's NW grades down onto ground with good access to the water table; groundcover shifts to sheep laurel with traces of leatherleaf. Two small OFS wetlands occur there. RP SI 60. See M.C.s
40	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Pole	5.5	34	81-110	Planted RP and naturally-established WP poles with overmature oak & JP. Under the heaviest residual, the RP is suppressed to subcanopy stature. Slash is from the poor quality oak breaking up and from snow-load breakage in the subcanopy WP. Some branch flagging in the WP. Occasional RM & older RP saw. Second age based on adjacent stands' similar overmature JP-NPO components that run 85-95 years old. RP SI 48, 54; adjacent plantation with less overstory suppression had SI's in the mid-60's. See M.C.s
41	4310 - Pine, Oak Mix	Low Density Sapling	10.1	7	1-50	Was cut in 2006 (#068-05), 2" & up except for bog buffers that have mature JP, NPO & WP. Regen from the cut is patchy, and includes oak, JP, WP & RM. The mature buffer strips are recorded as part of the canopy; without their contribution, the regen alone would not meet the forested benchmark. JP continues to seed into the temporary access road and fireplow lines. Slash is from logging residue and deadfalls. See Management Considerations regarding managment objective.
44	42110 - Planted Red Pine	High Density Pole	63.8	46	141-170	RP planted on shallow-rolling terrain. Areas with decent plantation integrity alternate with patches where rows swerve widely around mature NPO, JP & WP. Abrupt row direction changes not uncommon. Slash slowly building as the overmature oak & JP break up. Second age based on adjacent stands' similar overmature JP-NPO components that run 85-95 years old. RP SI 52, 65, 67. See M.C.s

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	42260 - Natural Pine, Mixed Deciduous	Medium Density Log	20.2	48	51-80	Upland stand bordering the AuSable, with a narrow discontinuous band of tag alder along the river's edge. Traces of cedar, black spruce & balsam fir occur there too. The majority upland ground has variable cover in naturally-established mixed pine, oak & RM, with traces of paper birch & aspen. A few sketchy rows of the adjacent RP plantation extend into this stand. The overstory cover generally lands in 3 age classes: 40-50, 80-90, & 110+. The 40-50 year old class is represented mostly by WP & the planted RP. Much of the RM, oak & JP is 80-90 years old. The stand's significant supercanopy WP & RP component falls in the oldest category. Stand is approaching multi-storied status as the subcanopy WP recruits. Slash is accumulating as the overmature component declines & from snow-load breakage in the subcanopy WP. Some branch flagging in the young WP. Seasonal drain crosses through north end. Windthrow salvage occurred (mid-1960's?) when in private ownership. See M.C.s
46	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	22.7	34	81-110	RP was interplanted through an area with considerable JP & oak residual. Stand is two-aged: immature planted RP/seeded-in JP and mature-overmature JP/NPO. Rows serpentine, with wide spacing as they weave around pockets of residual. Where the planted RP is most suppressed, it is recordable only in the subcanopy. The NPO is very poor quality. Slash is starting to build as the oak & JP break up. Standing dead becoming more common. There is a chain-wide strip of only JP & oak along the fence that was not planted through. Naturally-established older RP are scattered across the stand and in a small pocket on the south side. Sketchy rows of RP from the adjacent older plantation occasionally extend into this stand. RP SI 54, 58 ave 56; surrounding older plantation with less suppression had SI's 52, 65, 67, ave 61. See M.C.s

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	3301 - Low Density Deciduous Tree	12.2	No	Unspecified	Valley opening/two-track corridor. West edge used for adjacent harvest landing. Sweetfern & grass with encroaching cherry, RM, WP, oak, aspen & JP.
17	6220 - Alder/willow	1.7	No	Unspecified	Tag alder over marsh grass on river floodplain. Colonizing WP, BF, BS.
18	3302 - Low Density Conifer Trees	5.3	Natural Regen	Upland Conifers	Was cut in 2007 (#054-06), 2" & up except WP. The cover is just below the forested benchmark. The residual is mostly WP, with a single row of planted RP on the W edge, and black spruce and JP rimming the OFS wetlands inclusions (two bogs). Regen is a mix of oak stump sprouts and pine saplings & seedlings. Heavy slash load of top bundles and deadfall material. See Management Considerations.
20	790 - Other Bare/Sparsely Vegetate	1.4	No	Unspecified	Old borrow pit in process of re-vegetating. Encroaching cherry brush, RM, A, O, WP. See M.C.'s
25	790 - Other Bare/Sparsely Vegetate	2.2	No	Unspecified	Old borrow pit in process of re-vegetating. Encroaching cherry brush, RM, oak, RP. See M.C.'s
30	790 - Other Bare/Sparsely Vegetate	3.0	No	Unspecified	Old borrow pit in process of re-vegetating. Scattered cherry brush, perimeter oak, aspen, RP. See M.C.'s
35	6224 - Treed Bog	2.8	No	Unspecified	Leatherleaf bog with WP-JP-RP-black spruce growing in the center.
36	6225 - Bog	5.5	No	Unspecified	Leatherleaf bog with JP seeding in from the rimming overmature JP. Old RR grade crosses E end. Two small bogs on the N and SW edges are physically cut off from the main bog by low ridges, but are included within the stand boundary.
37	6225 - Bog	2.6	No	Unspecified	Leatherleaf bog with colonizing JP.
42	6225 - Bog	1.0	No	Unspecified	Leatherleaf bog rimmed with overmature JP. Most of the bog is in compt to S.
43	6225 - Bog	1.0	No	Unspecified	Leatherleaf bog rimmed with JP.