Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 205
Entry Year 2015
Acreage: 825
County Marquette
Management Area: Yellowdog Plains

Revision Date: 05/03/2013

Stand Examiner: Dean Wilson

Legal Description:

T50N-R28W, sections 5-8. T51N- 28W, section 36.

Identified Planning Goals:

Habitat/vegetation and mixed use.

Soil and topography:

The southern part of this compartment is a portion of the Yellow Dog Plains, a flat sandy outwash area with level to gently sloping topography. The northern portion of this compartment consists of glacial moraines with a topography that is generally rolling to very hilly and contains rock knobs. Soils range from loamy sands to loams.

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

Six parcels comprise this compartment averaging 160 acres in size. Mostly industrial lands listed under CFR surrounds State lands.

Unique Natural Features:

The headwaters of the Salmon Trout River origionate in the northern protions of this compartment.

Archeological, Historical, and Cultural Features:

Unknown.

Special Management Designations or Considerations:

Diversification of the age classes of jack pine in the southern portions of this compartment is a priority. Protection of the water courses by implementing best management practices or the foregoing of active management will be practiced. Stands 26 and 28 contain three ecological resource area designations (acid rock glens).

Watershed and Fisheries Considerations:

Special conservation value designations are in place and best management practices in management design will allow for these considerations.

Wildlife Habitat Considerations:

Compartment 205 is found within the Yellow Dog Plains Management Area; which is on an Outwash Plain in northern Marquette County. The State Forest covers about 3,800 acres and is somewhat scattered parcels. The dominant natural communities are dry northern forest. The major forest cover type is jack pine. This management area provides multiple benefits to the public including forest products, dispersed recreational activities, and habitat for fish and wildlife species. The management priority in this area is to continue to provide these multiple benefit in a sustainable manner while minimizing user conflicts. Wildlife considerations in the Yellow Dog Plains Management Area consist of managing jack pine habitat with strategies that more closely mimic natural fire disturbance regimes, to increase early successional jack pine management where appropriate while increasing stand size and striving to accommodate many species associated with xeric forest habitat is desirable. Some of the most significant wildlife management issues in the management area are: mast (hard and soft); habitat fragmentation; within stand diversity; mature forest condition; mesic conifer; large open land complexes; and early successional forest.

The following have been identified as featured species for Yellow Dog Plains Management Area: Black Bear, Gray Jay, Kirtland's Warbler, Spruce Grouse, and Upland Sandpiper. However, the featured species concept does not preclude the management for other wildlife species within a particular MA, rather it is simply intended to be as a tool to help prioritize or focus habitat management.

For lands purchased with Pittman–Robertson Act or Game and Fish funds, the primary objective of vegetative management must be wildlife restoration.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 10 and 50 feet or insufficient data to determine the thickness. The Precambrian Michigamme Formation and Archean Granite/Gneiss subcrop below the glacial drift. The Granite/Gneiss could be used for building or dimension stone. Gravel pits are not located in the area, but potential appears to be good. Silver Mine Lake is located four miles to the south. This compartment is currently leased for metallic exploration and is located just east of Eagle Mine. There is no economic oil and gas production in the UP.

Vehicle Access:

Is good to the compartment but is somewhat limited internally.

Survey Needs:

None.

Recreational Facilities and Opportunities:

A designated snowmobile trail runs through this area. Other than the trail, primary public use in this area is for passive recreation.

Fire Protection:

Concerns are the jack pine portions of this compartment and its distance from response stations. There are a number of camps and seasonal dwelling in this area.

Additional Compartment Information:

Kirtland Warbler surveys have been conducted in this compartment.

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**

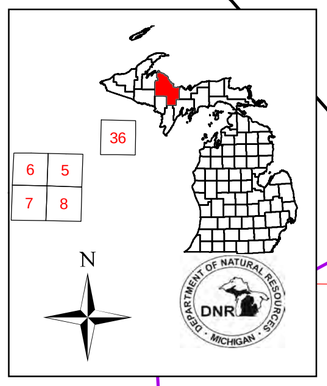
The following information is displayed, where pertinent, on the attached compartment maps:

- **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
T50N R28W Sec. 05, 06, 07, 08
T51N R28W Sec. 36
County: Marquette
Unit: Gwinn
YOE: 2015
Acres: 825 GIS Calculated
Examiner: Dean Wilson
Map Revised: 08/01/2013
Map Phase: Pre-Review

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



Legend
- 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
- Snowmobile Trails
- Snowmobile Trail
- Stream
- Intermittent Stream
- State Forest Land
- Lakes and Rivers

Treatments
- Selection (Group, Single Tree)

Forest Stands
Level 3
- 411 - Northern Hardwood
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 612 - Lowland Coniferous Forest

Northwestern Rd
Camp Rd
County Road Aba
County Road Aab
County Road Aar
County Road Aac
Triple A Rd

33 36 6 5 12 7 8 9

1 4119-M6
2 4235-H9
3 4229-MC8
4 4212-J6
5 4190-MD6
6 4212-J6
7 4222-J5
8 4199-MD9
9 4119-M9
10 4212-J3
11 4235-H9
12 4115-M6
13 4220-W4
14 6120-C9
15 4222-J5
16 4220-W4
17 4111-M9
18 4220-W4
19 4220-W4
20 6120-C9
21 4119-M9
22 429-MC9
23 4191-MD5
24 4191-MD9
25 4140-B6
26 4199-MD6

1 0.5 0 1 Miles

87°52'0"W 87°51'0"W 87°50'0"W 87°49'0"W 87°48'0"W 87°47'0"W
46°47'0"N 46°46'0"N 46°45'0"N

Stand Boundary Map

Compartment: 205
T50N R28W Sec. 05, 06, 07, 08
T51N R28W Sec. 36
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Unit: Gwinn
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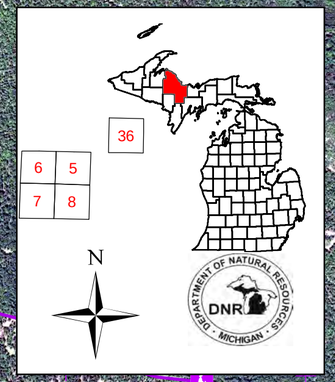
Map Revised: 08/01/2013
Map Phase: Pre-Review

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



Legend

- 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
- Snowmobile Trail
- Snowmobile Trails
- Stream
- Intermittent Stream
- Stand Boundaries

Forest Stands

Level 3

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1 0.5 0 1 Miles

Special Conservation Areas & Site Conditions Map

Compartment: 205
T50N R28W Sec. 05, 06, 07, 08
T51N R28W Sec. 36
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Unit: Gwinn
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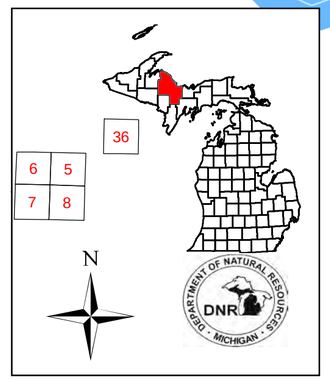
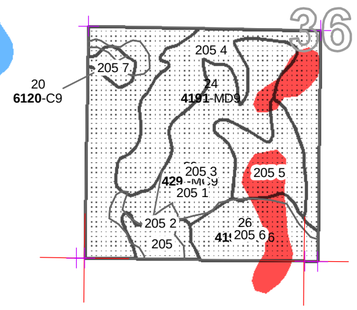
Stand # 23
Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code

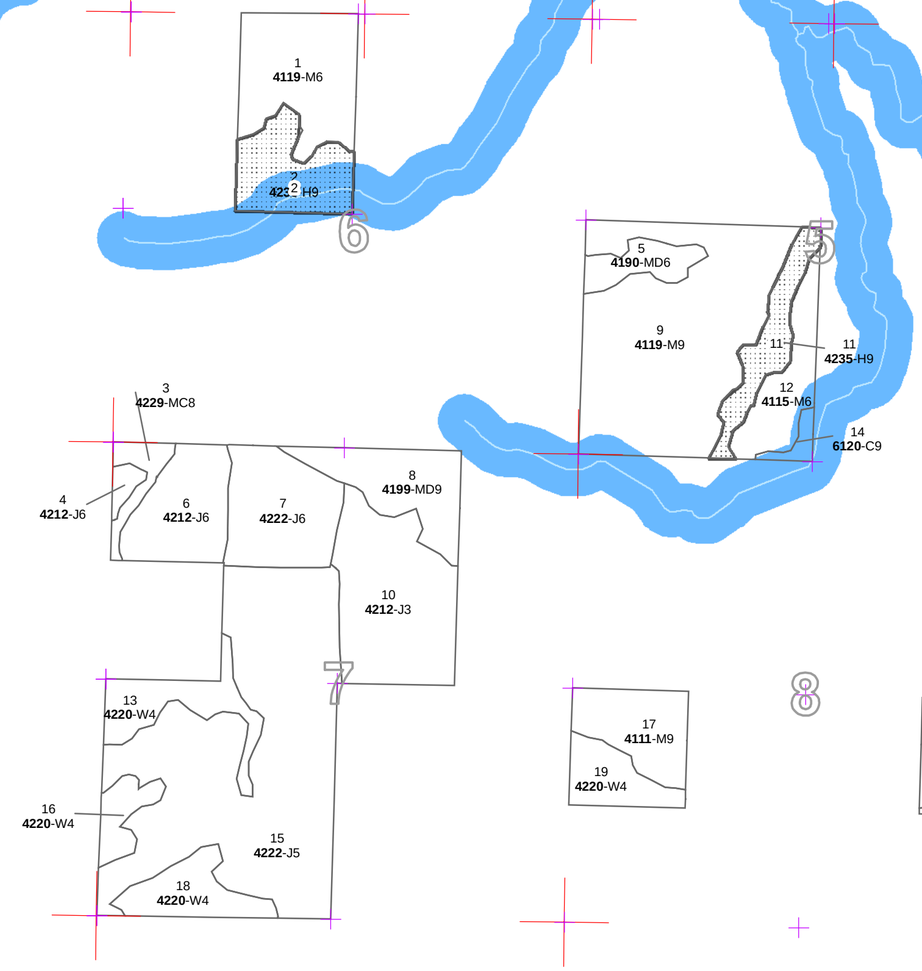


Legend
- Miris Corners
- Stand Boundaries

Reviewable SCAs
- Proposed SCA
- SCA Removal

Dedicated Special Conservation Areas
- Cold Water Streams
- Ecological Reference Areas
- High Priority Trout Stream Buffer





1 0.5 0 1 Miles

87°53'0"W 87°52'0"W 87°51'0"W 87°50'0"W 87°49'0"W 87°48'0"W 87°47'0"W
46°47'0"N 46°46'0"N 46°45'0"N 46°44'0"N

Report 1 – Total Acres by Cover Type and Age Class

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

Dean Wilson : 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
Cedar	0	0	0	0	0	0	0	0	0	0	0	3	3	0	**7**
Hemlock	0	0	0	0	0	0	0	0	0	0	0	44	0	0	**44**
Jack Pine	0	0	56	68	151	0	0	0	0	0	0	0	0	0	**276**
Mixed Upland Deciduous	0	0	0	0	0	0	0	11	0	61	0	0	126	0	**198**
Natural Mixed Pines	0	0	0	0	0	0	0	0	7	0	0	0	0	0	**7**
Northern Hardwood	0	0	0	0	0	0	0	0	0	42	0	174	0	0	**216**
Paper Birch	0	0	0	0	5	0	0	0	0	0	0	0	0	0	**5**
Upland Conifers	0	0	0	0	0	0	0	0	0	7	0	0	0	0	**7**
White Pine	0	0	0	0	0	0	15	0	48	0	0	0	0	0	**64**
Total	**0**	**0**	**56**	**68**	**157**	**0**	**15**	**11**	**56**	**110**	**0**	**222**	**129**	**0**	**825**

Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2015

Compartment 205
Total Compartment Acres: 825

Acres by Treatment Type

Commercial Harvest - 191	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Northern Hardwood	0	191	0	0	0	0	**191**
Total	**0**	**191**	**0**	**0**	**0**	**0**	**191**

Report 3 -- Treatments Prescribed with No Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	32205001-Cut	41.7	4119 - Mixed Northern Hardwoods	High Density Pole	90	111-140	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Specs: Mark individual trees for harvest. Favor yellow birch, black cherry, and oak for retention.

Other Comments: Hemlock and spruce will not be included in the harvest.

Next Steps: Check regeneration per work instructions.

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
9	32205009-Cut	105.2	4119 - Mixed Northern Hardwoods	High Density Log	110	111-140	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Specs: Mark individual trees in this stand to reduce the basal area to 70 to 90 square feet per acre.

Other Comments: All hemlock spruce and pine will be retained. Yellow birch, black cherry, and oak will be favored for retention.

Next Steps: Check regeneration per work instruction.

Proposed Start Date: 01/07/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	32205012-Cut	22.2	4115 - Y.Birch, Hemlock NH	High Density Pole	110	111-140	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal

Prescription Specs: Mark individual trees in ths stand to achieve a basal area oof 70 to 90 square feet per acre. Emphasis will be to release 50 to 70 crop trees per acre.

Other Comments: All hemlock and white spruce will be retained. Yellow birch, black cherry, and oak will be favored for retention.

Next Steps: Check regeneration per work instructions.

Proposed Start Date: 01/07/2014

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	32205021-Cut	22.4	4119 - Mixed Northern Hardwoods	High Density Log	110	81-110	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Specs: Mark individual trees for harvest. Favor yellow birch, black cherry, and oak for retention.

Other Comments: Retain all non-hardwood tree species. Do not cut any hemlock.

Next Steps: Check regeneration per work instructions.

Proposed Start Date: 10/01/2014

Total Treatment Acreage Proposed: 191.5

Data updated yesterday after 6:00 PM

Report 4 -- Treatments Prescribed with a Limiting Factor

Compartment: 205
Year of Entry 2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Type!							

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor

Total Treatment Acreage Proposed: 0

Data updated yesterday after 6:00 PM

Report 5 – Site Conditions

Gwinn Mgt. Unit

Dean Wilson : Examiner

Compartment 205

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	3K
7	7		**Cedar**	7	
44	44		**Hemlock**	44	
276	276		**Jack Pine**	276	
198	72	126	**Mixed Upland Deciduous**	72	126
7	7		**Natural Mixed Pines**	7	
216	216		**Northern Hardwood**	216	
5	5		**Paper Birch**	5	
7	7		**Upland Conifers**	7	
64	64		**White Pine**	64	
825	699	126	Total Forested Acres	699	126
	85%	15%	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
007	**Not Available**	**3K: Rare or unique landforms**	126	2F: Too steep	3A: Potential old growth / biodiversity		

Comments:

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
205 7	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	3.5
Comments				
Potential old growth.				
205	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	7.0
Comments				
Potential old growth.				
205 2	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	7.0
Comments				
Potential old growth.				
205 5	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	16.3
Comments				
Potential old growth.				
11	Spring-Seeps, Riparian Areas	Riparian Area	**SCA**	18.1
Comments				
205 6	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	20.0
Comments				
Includes an acid rock glenn ERA.				
2	Spring-Seeps, Riparian Areas	Riparian Area	**SCA**	26.2
Comments				
Contains drainages and seeps that are part of the Salmon Trout River. Draws are lowland hardwoods. Wide variation in composition and size classes.				
205 4	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	39.4
Comments				
Potential old growth. Includes an acid rock glen ERA.				
205 1	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	70.9
Comments				
Potential old growth. Contains areas of M9, B6, and F6.				
205 3	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	**SCA**	70.9
Comments				
Potential old growth. Contains areas of M9, B6, and F6.				

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 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	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.
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	4119 - Mixed Northern Hardwoods	High Density Pole	41.7	90	111-140	Contains sawlog inclusions. Access permission is not established and crosses private land.
2	42350 - Upland Hemlock	High Density Log	26.3	112	111-140	Was designated old growth in the 2003 entry cycle.
3	42290 - Natural Mixed Pine	Medium Density Log	7.5	85	51-80	
4	42120 - Planted Jack Pine	High Density Pole	3.1	34	51-80	Harvested in 1972: TS# 27/70A. Machine planted in 1978.
5	4190 - Mixed Upland Deciduous with Cedar	High Density Pole	11.3	79	51-80	Wet drain.
6	42120 - Planted Jack Pine	High Density Pole	29.4	34	51-80	Harvested in 1972: TS# 27/70A. Machine planted in 1978.
7	42220 - Natural Jack Pine	High Density Pole	35.6	33	1-50	Harvested in 1976: TS# 7/75A. Scarified and broadcast seeded in 1979.
8	4199 - Other Mixed Upland Deciduous	High Density Log	28.6	90	51-80	Harvested in 1985.
9	4119 - Mixed Northern Hardwoods	High Density Log	105.2	110	111-140	Selectively cut in 1972: TS# 17\71A.
10	42120 - Planted Jack Pine	High Density Sapling	56.4	25	1-50	Harvested in 1985: TS# 2/85. Trenched and planted in 1987.
11	42350 - Upland Hemlock	High Density Log	18.0	110	111-140	SCA = Riparian zone protection for a feeder stream to the Salmon Trout River. Contains wetland inclusions.
12	4115 - Y.Birch, Hemlock NH	High Density Pole	22.2	110	111-140	Selectively cut in 1972: TS# 17/71A.
13	42200 - Natural White Pine	Low Density Pole	20.8	85	1-50	Harvested in 2007: TS# 102-05-01. Harvest again to reduce residual to enable reforestation.
14	6120 - Lowland Cedar	High Density Log	3.4	110	141-170	Floodplains on the Salmon Trout River. Contains spring seeps and drainages. LF-water quality\BMP.
15	42220 - Natural Jack Pine	Medium Density Pole	151.5	42	1-50	
16	42200 - Natural White Pine	Low Density Pole	9.4	85	1-50	Harvested in 2007: TS# 102-05-01. Harvest again to reduce residual to enable reforestation.
17	4111 - S.Maple, Hard Mast Association	High Density Log	24.2	110	51-80	Cut in 1999: TS# 22-95-01.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	42200 - Natural White Pine	Low Density Pole	18.2	85	1-50	Harvested in 2007: TS# 102-05-01.
19	42200 - Natural White Pine	Low Density Pole	15.5	60	1-50	Cut in 1999: TS# 22-95-01.
20	6120 - Lowland Cedar	High Density Log	3.3	123	111-140	Evaluate for type 1 or type 2 old growth.
21	4119 - Mixed Northern Hardwoods	High Density Log	22.4	110	81-110	Cut in 1999: TS# 22-95-01.
22	429 - Mixed Upland Conifers	High Density Log	7.5	92	111-140	Stand is on a rock escarpment and is inoperable.
23	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	11.9	92	51-80	Cut in 1999: TS# 22-95-01.
24	4191 - Mixed Upland Deciduous with Conifer	High Density Log	126.1	123	111-140	Area should be evaluated for type 2 and type 1 oldgrowth. Due to this stand's history, tree ages vary extensively. Many long lived tree species (hemlock and northen hardwoods) are at or near their normal life spans.
25	4140 - Other Upland Deciduous	High Density Pole	5.4	45	51-80	
26	4199 - Other Mixed Upland Deciduous	High Density Pole	20.3	92	81-110	Stand is on a rock escarpment and is inoperable.

Report 9 – Nonforested Stands

Compartment: 205
Year of Entry: 2015

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:

Data updated yesterday after 6:00 PM