DNR

GRAYLING FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 019 ENTRY YEAR: 2009

GIS Compartment Acreage: 1975 County: Oscoda

Revision Date: April 10, 2007

Stand Examiner: Lucas Merrick

Legal Description: T28N, R01E, Sections: 24, 25, and 36 North Greenwood Township
T28N, R02E, Sections: 30 and 31 Elmer Township

Management Goals: To improve forest health, productivity, sustainability, and account for species and structural diversity throughout the State of Michigan by actively managing flora and fauna, while providing for multiple use and visual management.

Soils and Topography: Topography is flat to slightly rolling with drainages and depressions. Soils are primarily Grayling and Graycalm sands. These soils are excessively to somewhat excessively drained. The common trees found on these types of soils are jack pine, northern pin oak, white oak, red pine, white pine, and aspen.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is a mixture of state and private ownership. Private lands are primarily recreational with a few year-round residences. There is a private hunting ranch adjacent to the compartment in the northwest.

Unique, Natural Features: There is potential for dry prairie plants in grassy openings: Hill's thistle, rough fescue, Alleghany plum, and pale agoseris. There is potential for several animals of concern in this compartment: Kirtland's warbler, prairie warbler, secretive locust, dusted skipper, grizzled skipper, and the red legged spittle bug.

Archeological, Historical, and Cultural Features: No known occurrences.

Special Management Designations or Considerations: none

Watershed and Fisheries Considerations: The headwaters of Wright Creek are located within the compartment.

Wildlife Habitat Considerations: Various habitat types present themselves. Swamp conifer and mixed pine stands provide thermal cover for deer and grouse. The younger aspen stands and upland brush types provide areas for browse and cover. Scattered oak is found throughout the compartment and provides a mast source. There are several areas with grassy openings. Current compartment prescriptions will help to maintain the aspen and oak components.

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 600 and 800 feet. Beneath the glacial drift is the Coldwater Shale. There is not a current economic use for the Coldwater Shale. Gravel pits are located four miles to the east and potential appears to be good. Most of the compartment is leased and Section 24 has been developed for the Antrim Shale. There is some minor oil and gas development. The majority of well pads have been abandoned.

Vehicle Access: The compartment is easily accessed by maintained county roads which follow the section lines. There are several two-tracks and trails meandering throughout the compartment as well.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: Dispersed recreation occurs throughout the compartment. Designated snowmobile trail #4/#9 is located just south of Section 31.

Fire Protection: Access is adequate but, equipment limitations within the compartment could be a problem because of swampy terrain. Stand 69 was created as a fuel break. A prior fire plan calls for similar fuel breaks in stands 1 and 3.

Additional Compartment Information: Currently there is an abundance state wide of aspen acreage in the 40 year age class. Compartment 19 has several acres of aspen in this age class. Stands 12, 20, 21, and 40 have been prescribed for final harvest to help address this issue

LOTS Compartment Acreage: 1957

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - **Cover Type by Age Class**
  - **Cover Type by Management Objective**
  - **Compartment Volume Summary**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**

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

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

AUSABLE STATE FOREST | GRAYLING FOREST MGT UNIT | OSCODA COUNTY | COMPARTMENT: **19**

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	All Aged	Total
Aspen		40	30	204	190	332	5												801
Bog or Marsh	85																		85
Grass	47																		47
Jack Pine		112	81	57	10	176		77											513
Mx Swmp Cnfr									20	37	80	74							211
Oak		10	42							24	22								98
Red Pine			24			14		13	60										111
Spruce Fir				7															7
Tamarack					9														9
Upland Brush				24															24
Upland Hdwds										6									6
White Pine								63											63
Total	132	162	177	292	209	522	5	153	80	67	102	74							1975

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

AUSABLE STATE FOREST GRAYLING FOREST MGT UNIT OSCODA COUNTY COMPARTMENT: **19**

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	801																										801
V Bog or Marsh			85																								85
G Grass					47																						47
J Jack Pine	8				2		503																				513
Q Mx Swmp Cnfr												211															211
O Oak														98													98
R Red Pine																111											111
F Spruce Fir																			7								7
T Tamarack																					9						9
U Upland Brush																							24				24
M Upland Hdwds																								6			6
W White Pine																										63	63
Total	809		85		49		503					211		98		111			7		9		24	6		63	1975

AUSABLE STATE FOREST | GRAYLING FOREST MGT UNIT | OSCODA COUNTY | COMPARTMENT: **19**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY

TOTAL VOLUME		CUT VOLUME	
Hardwood	8838 Cds	Hardwood	4519 Cds
Hardwood	278 Mbf	Hardwood	111 Mbf
Softwood	7205 Cds	Softwood	2902 Cds
Softwood	1285 Mbf	Softwood	201 Mbf
Sum TotVol	19169 Cds	Sum CutVol	8045 Cds

Total Cmpt Acres

1975

Acres Proposed For Cut.............. 429

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
1	J6	77	65	50	jack pine	mature	final harvest	3	planting	

comnts Fmd : Not much in the understory(J1-O1). The red pine component is primarily in the north/east part of stand. There are a couple open J4/J5 areas with cherry brush and oak. Possible green up issues with adjacent compartment to the north. Leave healthy red pine and some healthy sawlog size oak in scattered islands. Plant to jack pine-with scattered red pine around residual. Would like leave a visual buffer along Lyle and Stickfort Roads but reference file indicates the need for a fuel brake along Stickfort Rd and the southern property line. If visual strip is not used - paint in leave islands for retention and aesthetics. (Final Harvest w/ reserves) Per pre-review note green up conflict due to adj sale called Well Knee Jack Pine- delay this treatment until adj stand to the north is cut or adjust this stand by leaving retnention islands along Lyle Road to assist with visual and minimize green up conlflict. Also hold stands 2 and 4 as no cut for retention and cut remainder of stands 1 and 3 except those islands needed for visual along road.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
3	J6	65	47	45	jack pine	mature	final harvest	2	planting	

comnts Fmd : Harvest w/ stand 1. This stand similar to 1 except it does not have as much red pine. Leave scattered healthy oak and red pine. Replant to jack pine w/ scattered red pine. Leave a visual buffer along Stickfort road -- reference file indicates a need for a fuel brake-- if visual strip is not applied, paint in leave islands to account for aesthetics. (Final Harvest w/ reserves) Per pre-review note green up conflict due to adj sale called Well Knee Jack Pine- delay this treatment until adj stand to the north is cut or adjust this stand by leaving retnention islands along Lyle Road to assist with visual and minimize green up conlflict. Also hold stands 2 and 4 as no cut for retention and cut remainder of stands 1 and 3 except those islands needed for visual along road.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
12	A6	80	44	55	aspen (upland)	immature	final harvest	2		

comnts Fmd : 2007: (Final harvest w/ reserves) Mixed aspen (BT & QA) in the 40 year old age class. Currently state wide there is a spike in the 40yr old age class distribution. Oak/maple influence in the north, white pine/red pine influence in the south. Some hypox. Good amount of witch hazel in understory. Retain about 3-8% of stand in scattered irregular shaped islands. Cut all species 2" inches and up. Manage for aesthetics when painting in islands-- try to include oak in a couple islands and avoid pine. Extend sale 1/2 a chain or so into stand 13 for a feathered contrast and possible stand expansion. This stand will regenerate to a fully or moderately stocked aspen stand with minor components of red maple, pin oak and misc pine species. Some open upland brush pockets currently exist in stand and are expected to develop in this stand in the future. If natural regeneration fails, the stand should be planted w/ jack pine. Per WD at pre-review, remove north portion of stand 12 from the treatment and create a new stand 112. Treat stand 112 when stands 10 and 11 are treated. This allows expansion of the aspen type in the future.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
20	A6	93	41	50	aspen (upland)	immature	final harvest	2		

comnts Fmd : 2007: Possible green up conflicts with Nancy Joar Sale to the west- evaluate at time of set up as probably will be ok. Browse evident in understory. Aspen is better quality in NE. -Some hypox- Currently state wide there is a spike in the 40yr old age class distribution. (FINAL HARVEST W/ RESERVES) Retain about 3-8% of stand in scattered irregular shaped islands. Cut all species 2" inches and up. Leave some high stumps for wildlife. Manage for aesthetics when painting in islands-- try to include oak in a couple islands and avoid pine. This stand will regenerate to a fully or moderately stocked aspen stand with minor components of red maple, pin oak and misc. pine species. Some open upland brush pockets currently exist in stand and are expected to develop in this stand in the future. If stand regeneration is inadequate, the stand will be replanted to a mix of red and jack pine. (old comments)SCATTERED MATURE OAK, RP, AND JP ARE LEFT Aspen in transition to A6. (SW finger - MANUAL CUT IN 1976 - FTP #158)

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
21	A4	22	41	46	aspen (upland)	sparse	final harvest	3		

comnts Fmd : 2007: Some oak has made it past the browse line. Poor quality 3-4 stick aspen. Several pockets of A2/O2 and open areas w/ sweetfern. (FINAL HARVEST) w/ stand 20. Cut all species 2' inches and up. Protect healthy advanced oak regen. Retain and protect some of the better pockets of A2/A3 found in stand. This stand should regenerate to a poor to moderately stocked aspen stand with pockets of oak and pine. There are currently several upland brush pockets found in stand and these are expected to develop after harvest as well. If stand regeneration is inadequate, the stand will be replanted to a mix of red and jack pine. (old comments)OFF SITE ASPEN,WAS CUT OVER WITH STAND NO.20 IN 1965

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
40	A6	27	40	46	aspen (upland)	immature	final harvest	2		

comnts Fmd : Aspen w/ mixed conifer. Stand has some low/wet areas. Birch and maple also found in stand. Most of jack pine is found along the 2-track. This stand is in the 40 year old age class. Currently state wide there is a spike in the 40yr old age class distribution. This type and age class is also the most common found in compartment 19. I recommend a (FINAL HARVEST W/ RESRVES). Cut all trees 2" inches and up. Leave several high stumps for wildlife. Follow in stand retention guidelines. If possible extend sale boundary into the adjacent q-types if conditions and timber quality warrant. This will create a feathered edge and possibly help to expand the stand. (old comments) Stand in transition to A6, scattered JP in stand. POSSIBLY NEED TO REQUEST A SURVEY TO DETERMINE NORTH EDGE OF STAND 43!

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
49	R6	10	47	53	red pine	immature	thinning	2		

comnts Fmd : 3rd row thin and remove majority of jack pine. Very little ground cover. This treatment is intended to enhance the quality of current stand. Per pre-review: restrict or minimize operations on landing area- leave a few trees (such as painted boundary trees) along edge of stand 50 so to define the edge of the grassy opening and this can assist with retention. (old comments)Thin in 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
50	**A6**	5	42	48	aspen (upland)	immature	final harvest	2		

comnts Fmd : Stand has good oak regen in some locations 15'+ tall. The jack pine is declining and the aspen has hypox (several broken tops). Mature oak is poor quality. Equipment will have to cross an opening to access stand. Leave healthy advanced oak regen -- do to small acreage, recommend that all other trees 2" and be harvested and retention guidelines no followed (Final Harvest). Treatment should produce a moderate to fully stocked aspen stand with components of red maple, pin oak, and misc. conifer. If adequate natural regeneration is not obtained the stand will be planted to jack pine. er pre-review: restrict or minimize operations on landing area- leave a few trees (such as painted boundary trees) along edge of stand 50 so to define the edge of the grassy opening and this can assist with retention.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
51	**R6**	4	47	53	red pine	immature	thinning	2		

comnts Fmd : 3rd row thin and remove majority of jack pine. Very little ground cover. This treatment is intended to enhance the quality of current stand. (old comments)Thin in 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
54	**O9**	16	85	48	oak	mature	final harvest	2		

comnts Fmd : Majority of birch is dead or declining. Aspen component found primarily in the north. Red pine is in the south. Some oak starting to decline but there are areas of oak that still look quite healthy. Recommend a final harvest w/ reserves leaving clumps of misc species but target healthy oak and pine as leave trees. Protect oak advanced regen. Consider leaving a small island along Townline Rd for visual. Omit portion of stand north of Lee Rd from sale. This prescription is intended to create an even aged stand except for a small number of widely dispersed trees retained for seed production. These trees should be left in the stand after regeneration has established. The management objective is an oak stand. Any natural regeneration at moderate to full stocking with an oak component will be a success. If adequate natural regeneration is not obtained this stand will be replanted w/ mixed pine species.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
63	**J6**	3	43	45	jack pine	immature	final harvest	3		

comnts Fmd : Porky damage in stand. Treat w/ stands 49 and 51. Do not cut red pine. Leave limbs and/or tops scattered in sale area. A poorly stocked stand is acceptable as long as some natural jack pine regeneration occurs. This cut will help to enhance and expand the adjacent grass stand and create a small jack pine barren type area. The limbs and tops will add a woody debris element and provide new habitat.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
75	**J4**	2	32	45	grass	sparse	final harvest	3		

comnts Fmd : Part of an old grass opening that has filled in with jack pine. Final harvest w/ adjacent red pine stands. Manage as an open area w/ mixed pine regeneration.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
77	**Q6**	17	74	40	mixed swamp conifer	immature	final harvest	2		

comnts Fmd : Mixed stand of aspen, red-white-jack pine, black spruce, and fir. Good area for dropping and leaving conifers for wildlife? Harvest all species 2" and up except for a few pockets of healthy red pine and misc swamp conifer. Apply rabbit habbitat specs and leave some tops (5-10per acre) and limb piles. Or else specifically mark trees in stand for them to push over and leave. Leave scattered high stumps for wildlife. This stand should regenerate to a moderately to well stocked mixed swamp conifer stand w/ pockets of aspen. Per pre-review we decided to change from seed tree to final harvest treatment. Widlife Division requested no retention in the stand to allow for maximum reproduction of aspen due to the small size of the stand and adjacent stands have been left.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
83	**J6**	8	41	50	aspen (upland)	immature	final harvest	2		

comnts Fmd : Jack pine with pockets of declining aspen. Harvest with stand 20. Stand should convert/and be managed for aspen w/ mixed conifer. Scattered large red pine. Management objective is aspen but any natural regeneration of jack, red, white pine, oak, and maple with an aspen component should be considered a success. Harvest all species 2" and up.

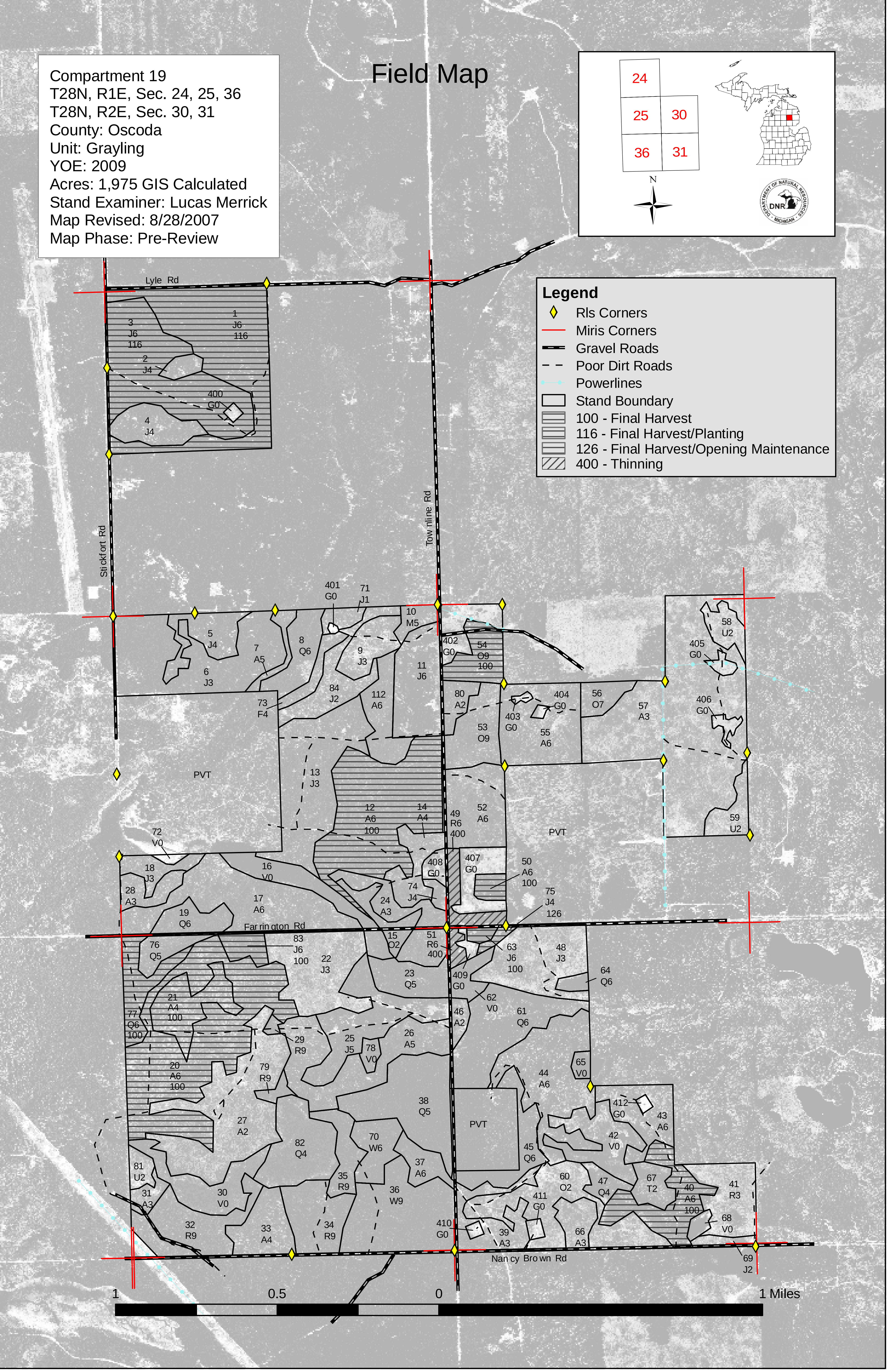
Wld : This is a conversion to aspen type.

Total Acres....... 429

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status

TREATMENT LIMITING FACTORS:

Total Acres....... **0**



Field Map
Compartment 19
T28N, R1E, Sec. 24, 25, 36
T28N, R2E, Sec. 30, 31
County: Oscoda
Unit: Grayling
YOE: 2009
Acres: 1,975 GIS Calculated
Stand Examiner: Lucas Merrick
Map Revised: 8/28/2007
Map Phase: Pre-Review
24
25
30
36
31
N
DEPARTMENT OF NATURAL RESOURCES
DNR
MICHIGAN
Legend
Rls Corners
Miris Corners
Gravel Roads
Poor Dirt Roads
Powerlines
Stand Boundary
100 - Final Harvest
116 - Final Harvest/Planting
126 - Final Harvest/Opening Maintenance
400 - Thinning
Lyle Rd
Stickfort Rd
Townline Rd
Farrington Rd
Nancy Brown Rd
PVT
1
0.5
0
1 Miles