

CADILLAC FOREST MANAGEMENT UNIT



COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 148 ENTRY YEAR: 2007

Compartment Acreage (GIS Acres): 1958 County: Wexford

Revision Date: 11/03/2005 3:41 PM

Stand Examiner: Jason Hartman, Forest Technician, Jason Stephens, Forester, Tom Haxby, Inventory and Planning Specialist

Legal Description: T24N, R9W, Sections 17-20, 29, 30

RMU : Mixed Use

Management Goals: Maintain a variety of cover types and age class diversity which favor a variety of game and non game species.

Soil and Topography: This compartment falls within landtype association (LTA) 1111 of sub-subsection VII.2.1 and 5211 of sub-subsection VII.2.2. LTA 1111, which occurs in the southern half of section 30, is characterized by steep, broken moraine ridges, few kettle lakes, and excessively drained sand. LTA 5211, which occurs in the remainder of the compartment, is a pitted outwash plain with excessively drained sand..

Ownership Patterns, Development, and Land Use in and Around the Compartment: All sections contain some private land with the exception of section 19. Desirable acquisitions would be the NW qtr and the East half of the NE qtr of section 18, the NW and the NE and the SE of the NE of section 30 and the South half of the SE qtr of section 20. No lands are identified for disposal.

Unique, Natural Features: This compartment contains a few mixed hemlock/ cedar/ white pine stands that are representative of pre-settlement conditions in this area along the Manistee River. Manton Creek in Section 20. Potential for red-shouldered hawk, northern goshawk, eastern massasauga, wood turtle, spotted turtle. The bog habitat harbors potential for Blanding's turtle, ebony boghaunter, spotted turtle, and secretive locust. Eastern box turtle could occur throughout the compartment.

Archeological, Historical, and Cultural Features: None noted

Special Management Designations or Considerations: Continue to create a variety of cover types and age classes. Due to the lack of success in regenerating and maintaining the oak component in this compartment, a mix approach of pine types should be considered with the goal of creating fully stocked, healthy stands that will also allow oak to re-establish itself. Some stands will be receiving partial red pine underplantings designed to maintain and enhance the regenerating oak concurrently with red pine. Several stands in this compartment are remnants of old strip (Red pine / Jack pine alternating strips) plantations. The Jack pine was either cut out last YOY or is being cut this YOY. The age of the Red pine is on the leading edge of the Age Class spike. A serious look should be taken at removing the Red pine now and restarting these stands to help level out the Age Class spike of Red pine and manage the risk of Diplodia within these stands. Holding

the Red pine longer will increase the risk of Diplodia on the newly regenerated strips and perpetuate the strip plantation issues into future YOE's.

Watershed and Fisheries Considerations: Manton Creek flows northerly through the east portion of the compartment, while a branch of Buttermilk Creek flows north and west through the southwest (Section 30) portion of the compartment. While the state natural river designation ends at the Missaukee/Wexford County line, Fisheries, Forest Management, and Wildlife Divisions entered into an agreement to adopt and utilize the Upper Manistee River state natural river zoning ordinance. Manton Creek and Buttermilk Creeks, are both designated trout streams with excellent self-sustaining brown trout populations. On both of these streams, the vegetative buffer would be 100 feet on 0-10% slopes, 115 feet on 11-20% slopes, 135 feet on 21-32% slopes, and 155 feet on 33+% slopes, unless the proposed treatment meets one of the eight exceptions (page 41 of the Upper Manistee River Natural River Plan).

Wildlife Habitat Considerations: This compartment is one of 13 in this RMU which makes up most of the State ownership in Wexford County. The intent of the original agreement was to increase the aspen acreage and decrease the red/white pine acreage while maintaining other existing cover types. Many aspen and oak stands have a lot of white pine in the understory. Many stands have already converted to white pine and red pine management. This compartment is a large deer wintering complex. The habitat objectives are to continue to maintain species diversity and age-class diversity across the compartment.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan Formation is quarried for gypsum in other areas of the State. A gravel pit is located in Section 16 and potential is considered to be good. This area is located seven miles south of the prolific Silurian Niagaran reef trend. Oil and gas has limited potential in the Compartment and none of the State lands are leased for oil and gas exploration.

Vehicle Access: A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Also indicated are forest roads and trails under the jurisdiction of the DNR that are proposed for abandonment. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally. Proposed new roads or roads recommended for substantial improvement are noted below: Good road access through out compartment. There is an illegal ORV trail in Stand 53 at SWNE, Sec. 19, T24N, R9W.

Survey Needs: There may be a need for a survey in the 80 on the northeast corner of the compartment along the west line.

Recreational Facilities and Opportunities: No trails or facilities. Dispersed hunting and camping.

Fire Protection: Due to the jack/red pine component in the compartment, the potential for larger fires is increased. There is basically good access, except for some bog areas. With the private land within the compartment, and increased development there are some potential urban interface problems.



Stage 1 Acres Summary By Level 3 Cover Type By Age

Compartment: 63148

Date: 10/26/2005

	0	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	>89	Uneven Age	Grand Total
Aspen Types	0	76.9	10.8	10.4	308.2	231.7	42.2	14.4	0	0	2.6	0	697.2
Emergent Wetland	94.4	0	0	0	0	0	0	0	0	0	0	0	94.4
Herbaceous Openland	70.2	0	0	0	0	0	0	0	0	0	0	0	70.2
Low-Density Trees	39	0	0	0	0	0	0	0	0	0	0	0	39
Lowland Coniferous Forest	0	0	0	6.1	0	1.7	1.2	47.6	72	20.9	24.8	0	174.3
Lowland Deciduous Forest	0	1.1	0	0	17.2	27.8	58.7	16.1	0	13.6	14.9	22	171.4
Lowland Mixed Forest	0	0	0	0	1.7	0	0	0	0	0	3.8	0	5.5
Lowland Shrub	175.3	0	0	0	0	0	0	0	0	0	0	0	175.3
Mixed Upland Conifers	0	0	0	0	0	0	0	0	4	0	0	0	4
Mixed Upland Deciduous	0	0	0	0	0	0	0	21.8	0	0	0	0	21.8
Natural Pines	0	11.6	0	0	0	8.3	23.9	0	0	0	0	9.7	53.5
Northern Hardwood	0	0	0	2.1	0	0	3	13	15.2	0	0	13.5	46.8
Oak Types	0	0	0	0	1.8	0	4.1	0	0	0	0	0	5.9
Other Upland Conifers	0	0	0	0	0	4.1	0	0	0	0	8.4	0	12.5
Planted Pines	0	0	22.9	0	46.4	98.7	124.9	0	0	0	0	0	292.9
Road/Parking Lot	20.6	0	0	0	0	0	0	0	0	0	0	0	20.6
Upland Mixed Forest	0	0	24.2	0	0	0	6.1	0	26.4	16.2	0	0	72.9
Grand Total	399.5	89.6	57.9	18.6	375.3	372.3	264.1	112.9	117.6	50.7	54.5	45.2	1958.2

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S
t
a
n
d

Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Follow Up Activities After Treatment	Pg. 1
3 63148003-mechanical release	11.6	Natural Jack Pine	3	7	5	Other	Release			
<u>Rev</u>	Recommend a mechanical thinning, using chain saw or saw-blade trimmer to release direct jack pine competitors of red pine within a 2' radius of the red									
<u>Spec:</u>	pine stem when there is jack pine on more than 2 sides of the planted red pine stem.									
<u>Rev</u>	This stand is a result of planted red pine and jack pine volunteers that followed harvest. Currently Jack pine is the principle canopy species, and in many									
<u>Cmnt:</u>	places is in danger of overtopping and out-competeing the red pine. While this competition can increase height growth for the early stages of this stands life, overcompetition in the number of stems/ac will not allow for adequate diameter growth in red pine or jack pine.									
	The covertype will still be principally jack pine (more stems/ac), but a desirable mix of jack and red will be accomplished.									
4 63148004-Cut	17.7	Planted Red Pine	6	49	0	Low Thinning	Intermediate Cut	Planted Red Pine		
<u>Rev</u>	Thin to a residual BA of 100-120sq.ft. Thin from below and take out at-risk (forks, etc.) from all size classes.									
<u>Spec:</u>										
<u>Rev</u>										
<u>Cmnt:</u>										
17 63148017-Cut	10.3	Mixed Northern Hardwoods	9	72	0	Group Selection	Regeneration	Mixed Northern Hardwoods	--Jason Stephens : 09/20/2005 comments: Regeneration monitoring for the above species mix. If overall stocking is not adequate for northern hardwood type, uneven-aged guidelines, then supplement with white pine underplant.	
<u>Rev</u>	--Jason Stephens : 09/20/2005 comments:									
<u>Spec:</u>	Group Selection, put in 1-2, 60-120' dia. regen gaps/acre. to favor oak, ash, and possibly birch component. Should also stimulate sugar maple component of regeneration, and overall allow other species to outcompete beech and ironwood components. Aspen will likely be a minor component of the regeneration, but gaps are not meant to successfully regenerate the aspen into viable stems.									
<u>Rev</u>	--Jason Stephens : 09/20/2005 comments:									
<u>Cmnt:</u>	Diverse mix of intollerant, mid-tolerant and some tolerant hardwood species. The prescription will attempt to enhance regeneration of this species mix. Several wet areas and a drain will be excluded in treatment boundary that were in the AOI.									
22 63148022-Cut	22.9	Natural White Pine	9	56	120	Single Tree Selection	Regeneration	Natural Red Pine	Monitoring for regen can just be ensuring that existing regen is not significantly impacted from the harvest.	
<u>Rev</u>	Cut tree mark at risk pine of all size classes, releasing highest quality pine sawlog crop trees. Preserve a red maple component, smaller diameter stems									
<u>Spec:</u>	or overmature den trees if present, where it is not impacting growth of high quality pine. hrough either leave tree marking or marking some but not all stems. Cut tree at risk some red maple, but preserve Spec cut aspen.									
<u>Rev</u>	Stand is Multi-storied (3 distinct ages, seed trees, second age class in canopy, and a third age of regen present in the subcanopy and gaps in stand).									
<u>Cmnt:</u>	Purpose of the harvest is not explicitly to establish regeneration, but more to release existing regen. Objective is large diamentter sawlogs in primarily white pine.									
23 63148023-west-Cut	5.6	Aspen	6	41	0	Clearcut with Reserves	Regeneration	Aspen, Mixed Pine	Monitor for successful natural regeneration of aspen, possibly mixed with some pine. If in the unlikely event aspen regeneration is unsuccessful, supplement stocking with white pine to minimum forested stand stocking guidelines.	
<u>Rev</u>	Clearcut all merchantable aspen and maple. Leave all pine and cherry.									
<u>Spec:</u>										
<u>Rev</u>	The scattered white pine component should be left to enhance stand level bio-diversity concerns.									
<u>Cmnt:</u>										

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Follow Up Activities After Treatment	Pg. 2
31	63148031-Cut	4.7	Lowland Ash	6	85	0	Clearcut	Habitat Management	Aspen		
<u>Rev</u>	Clear-cut, 2" spec. Possible need for BMP rutting spec.										
<u>Spec:</u>											
<u>Rev</u>	Area of treatment will be the upland aspen portion of the stand.										
<u>Cmnt:</u>											
54	63148054-Cut	20.9	Aspen	6	38	0	Clearcut	Regeneration	Aspen	Check for regeneration in 4 years. Desired outcome includes a balsam fir (possibly some black spruce) component with a predominant aspen covertype. If unsuccessful at returning to a full stocked aspen type, supplement with white pine planting.	
<u>Rev</u>	Dormant season harvest (October through March 31st) to increase sprouting viability.										
<u>Spec:</u>											
<u>Rev</u>	Harvest earlier than silvicultural criteria to balance age classes within the compartment.										
<u>Cmnt:</u>											
71	63148071-Cut	7.0	Planted White Pine, Mixed Deciduous	6	54	0	Systematic Thinning	Intermediate Cut	Natural White Pine, Mixed Deciduous		
<u>Rev</u>	Cut all aspen and jack pine. Cut tree mark at risk white pine and poor form red maple or those competing with high quality white pine.										
<u>Spec:</u>											
<u>Rev</u>	Promote a mixed natural stand										
<u>Cmnt:</u>											
73	63148073- west-Cut	28.4	Aspen	6	35	0	Clearcut	Regeneration	Aspen	Monitor for regen in 4 years, if aspen is unsuccessful (very unlikely), supplement with a planting of white pine. to bring to minimum stocking levels.	
<u>Rev</u>	Clearcut, 2" spec. Leave all black cherry. Avoid wet edges when running lines. Dormant season harvest to facilitate sprouting.										
<u>Spec:</u>											
<u>Rev</u>	This is an older area of aspen within a larger stand. Cut to break up age class distribution in the Comp that is heavy to 30-50 year old aspen.										
<u>Cmnt:</u>											
82	63148082-Cut	17.2	Planted Jack Pine, Mixed Deciduous	5	53	0	Clearcut	Regeneration	Planted Mixed Pine	Burn and/or herbicide (whichever is more cost effective) to control off-site poor quality jack pine seed source, then plant to red and white pine mix, slightly above average stocking level to decrease damage potential of white pine weevil.	
<u>Rev</u>	Clearcut, 2" spec. to facilitate planting.										
<u>Spec:</u>											
<u>Rev</u>	Jack pine plantation, some mortality, blown down and broken off. Live trees starting to decay. Jack pine is off-site. Convert to red pine/white pine.										
<u>Cmnt:</u>											
87	63148087-Cut	13.3	Aspen	9	49	0	Clearcut with Reserves	Regeneration	Aspen, Oak		
<u>Rev</u>	Mark oak to leave.										
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S
t
a
n
d

Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Follow Up Activities After Treatment	Pg. 3
88 63148088-Cut	13.0	Mixed N. Hardwood - Aspen	6	67	0	Shelterwood	Regeneration	Mixed N. Hardwood - Aspen	Aspen is clonal and forms a "donut" around edges of the stand. If any area does not successfully regenerate to aspen or red maple (very unlikely in aspen areas, possible in maple areas), supplement with white pine.	
<u>Rev</u>	Leave Tree Mark red maple in the 6"-14" range, target residual 30-50sqft. residual BA. of red maple, plus all white pine, max residual BA approx. 60sqft.									
<u>Spec:</u>	Leave all cherry and pine, as well as any oak (trace?). Cut all aspen. Also mark 1-2 red maple cavity trees/ac. to be left.									
<u>Rev</u>	PARVCo site. First cut of a two step shelterwood with reserves (white pine). Goal is to regenerate aspen where it exists, along with red maple, from									
<u>Cmnt:</u>	stumps and seed, and to release white pine component.									
89 63148089-Cut	42.9	Planted Jack Pine, Mixed Deciduous	6	56	0	Clearcut	Regeneration	Mixed Upland Deciduous with Conifer	Follow harvest with a natural regeneration check in 4 years to determine if planting is necessary.	
<u>Rev</u>	Final harvest w/ 2" spec. Leave any oak (trace?) or unmerchantable hardwood seed trees (wolfy red maple). Desired outcome is a mix of red maple and									
<u>Spec:</u>	aspen (where patchy clones exists), with scattered jack pine volunteers. Any combination of the above is acceptable. Where stocking levels are inadequate (not fully stocked), plant white pine to supplement.									
<u>Rev</u>	Jack pine is off site and high risk (falling apart). Extensive red maple regen. Lots of downed & dead jack pine as well.									
<u>Cmnt:</u>										
89 63148089-white pine thinning	2.2	Planted Jack Pine, Mixed Deciduous	6	56	0	Systematic Thinning	Intermediate Cut	Planted White Pine		
<u>Rev</u>	Remove aspen & CTM defect in white pine, Target 1/3 removal of WP.									
<u>Spec:</u>										
<u>Rev</u>										
<u>Cmnt:</u>										
90 63148090-Cut	55.7	Planted Red Pine	6	51	0	Low Thinning	Intermediate Cut	Planted Red Pine		
<u>Rev</u>	Has had its first 3rd row thinning, needs thinning from below & defect removal from all classes; row spacing adequate. Target residualt BA of 100-120									
<u>Spec:</u>	sq.ft.									
<u>Rev</u>										
<u>Cmnt:</u>										
94 63148094-Cut	29.1	Aspen, Mixed Pine	9	53	35	Shelter Wood with Reserves	Regeneration	Aspen, Mixed Pine		
<u>Rev</u>	Spec cut all aspen and red maple. Leave oak. Mark pine to cut and mark more heavily on the east side in order to spread aspen into offsite jack pine									
<u>Spec:</u>	stand on east side which will be final harvested. Same sale. Dormant season harvest. Chip JP.									
<u>Rev</u>										
<u>Cmnt:</u>										
98 63148098-Cut	10.9	Aspen	6	45	45	Clearcut	Regeneration	Aspen		
<u>Rev</u>	Nice BTA.									
<u>Spec:</u>										
<u>Rev</u>	Clear-cut early to stagger age classes.									
<u>Cmnt:</u>										
102 63148102-Cut	7.9	Planted Jack Pine	6	48	0	Clearcut with Reserves	Cover Type Conversion	Aspen, Oak		
<u>Rev</u>	Same sale with stand to west. Goal is to spread aspen into this offsite jack pine plantation. Winter harvest. Leave oak.									
<u>Spec:</u>										
<u>Rev</u>										
<u>Cmnt:</u>										

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Follow Up Activities After Treatment	Pg. 4
109	63148109-Cut	15.2	Lowland Aspen	9	47	0	Clearcut	Regeneration	Aspen		
<u>Rev</u>	Very wet in spots. Best to spec for a winter only cut for regen purposes as well.										
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											
118	63148118-Cut	39.9	Aspen	6	45	0	Clearcut	Regeneration	Aspen		
<u>Rev</u>	early aspen harvest to stagger age class distribution										
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											
131	63148131- Aspen mgmt	5.7	Aspen	6	46	58	Clearcut	Regeneration	Aspen, Mixed Pine		
<u>Rev</u>	Clear-cut.										
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											
131	63148131- Pine mgmt	3.5	Aspen	6	46	58	Other - Specify in Comments	Release	Aspen, Mixed Pine		
<u>Rev</u>	Same sale with unit to south. Removal. Remove all aspen and red maple. Leave all pine										
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											
138	63148138-Cut	31.9	Planted Red Pine	5	46	0	Systematic Thinning	Regeneration	Planted Red Pine, Mixed Deciduous		
<u>Rev</u>											
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											
144	63148144-Cut	12.4	Aspen	7	68	0	Clearcut	Habitat Management	Aspen		
<u>Rev</u>											
<u>Spec:</u>											
<u>Rev</u>	Request from wildlife.										
<u>Cmnt:</u>											
146	63148146-Cut	1.7	Red Oak	6	52	55	Other - Specify in Comments	Release	Red Oak		
<u>Rev</u>	--Jason Hartman : 09/13/2005 comments:										
<u>Spec:</u>	Treatment is strictly for the purpose of releasing well-established oak saplings that have good form. Do not worry about selecting all of the low quality stems out of this small stand. Leave the rest of the stand for mast. Oak is not well represented in this area.										
<u>Rev</u>											
<u>Cmnt:</u>											
147	63148147-Cut	24.6	Planted Red Pine	5	46	0	Clearcut	Regeneration	Planted Red Pine, Mixed Deciduous		
<u>Rev</u>											
<u>Spec:</u>											
<u>Rev</u>											
<u>Cmnt:</u>											

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S
t
a
n
d

Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Follow Up Activities After Treatment	Pg. 5
151 63148151-Cut	14.5	Planted Red Pine	5	46	0	Clearcut	Regeneration	Planted Red Pine, Mixed Deciduous		

Rev
Spec:

Rev
Cmnt:

159 63148159-Cut	8.3	Natural White Pine	9	45	0	Systematic Thinning	Intermediate Cut	Natural White Pine, Mixed Deciduous		
------------------	-----	-----------------------	---	----	---	------------------------	------------------	---	--	--

Rev Thin to BA 90.

Spec:

Rev Stand has very high BA needs to be thinned.

Cmnt:

**Total Treatment
Acreage Proposed: 478.7**

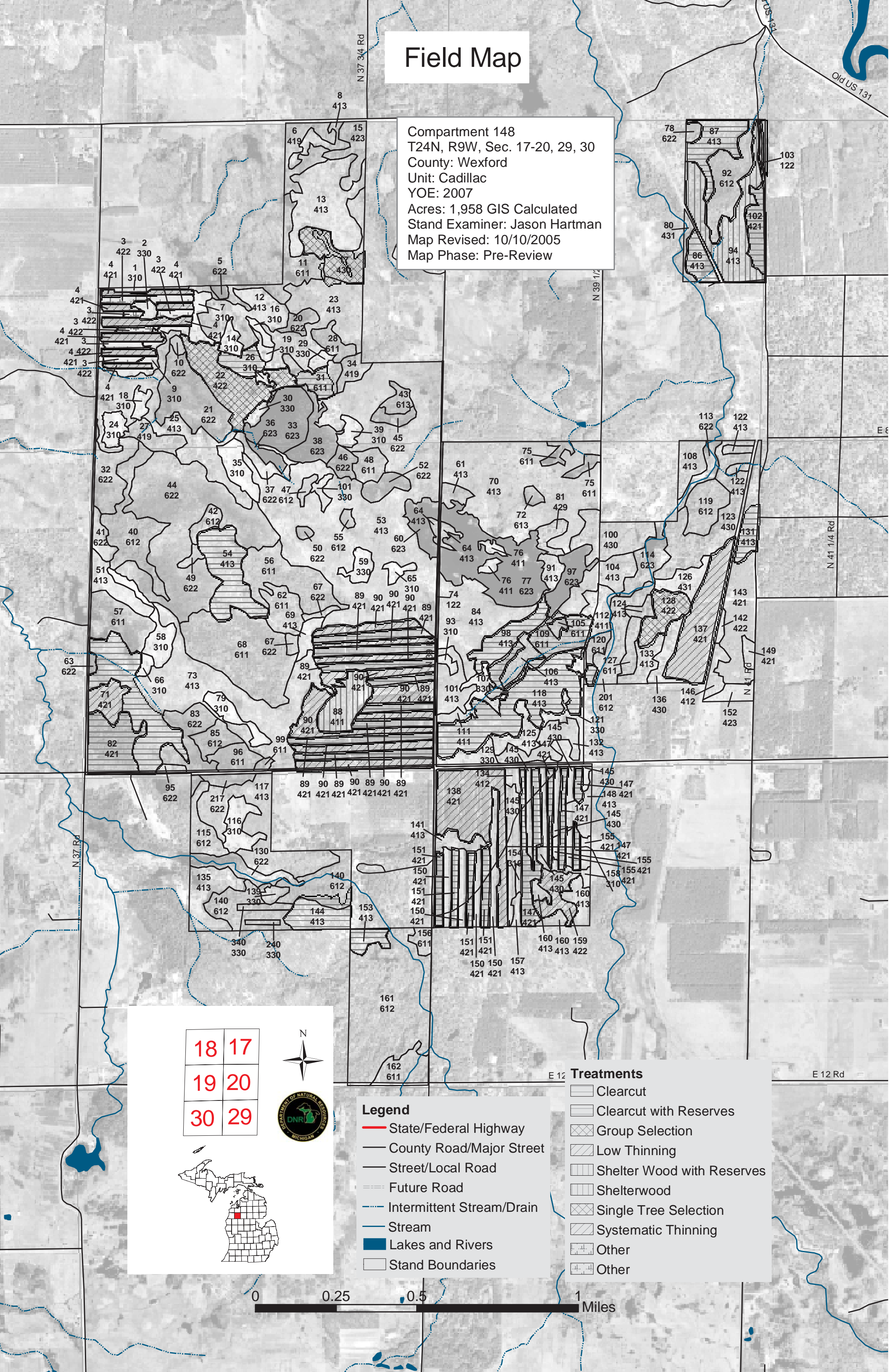
**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Follow Up Activities After Treatment	Pg. 1
86	63148086-Cut	6.2	Aspen	9	58	0	Clearcut	Regeneration	Aspen		
<u>Limiting Factor and Comment:</u> 2A: Adjacent landowner denies access Access unlikely from landowner. Very difficult spot to cross railroad.											
<u>Rev Spec:</u>											
<u>Rev Cmnt:</u>											
128	63148128-Cut	9.7	Natural White Pine	6	60	0	Single Tree Selection	Regeneration	Natural Mixed Pine		
<u>Limiting Factor and Comment:</u> 2G: Blocked by physical obstacle need to cross railroad											
<u>Rev Spec:</u> Harvest goal is to release quality stems, establish another cohort of regen, and maintain structure in this natural mixed pine stand. Thin poletimber for quality, but do not do a thinning from below throughout the whole stand. Cut a few large diameter stems to create gaps. Clean up gaps.											
<u>Rev Cmnt:</u>											
137	63148137-Cut	24.8	Planted Red Pine	6	30	0	Systematic Thinning	Release	Planted Red Pine		
<u>Limiting Factor and Comment:</u> 2G: Blocked by physical obstacle need to cross railroad											
<u>Rev Spec:</u> Thin every 4rth row and delineate small areas to cut all red pine beneath wolfy trees. Girdle wolfy RM. Leave white pine and oak.											
<u>Rev Cmnt:</u>											
140	63148140- E- Cut_habitat	2.9	Lowland Cedar	4	69	0	Clearcut	Habitat Management	Aspen		
<u>Limiting Factor and Comment:</u> 2G: Blocked by physical obstacle Will need to get access from sawmill property.											
<u>Rev Spec:</u>											
<u>Rev Cmnt:</u> Pocket is actually mostly aspen. If aspen does not naturally regenerate will accept cedar, oak or red maple which are all suitable for the site.											
153	63148153-Cut	4.7	Aspen	7	68	0	Clearcut	Habitat Management	Aspen		
<u>Limiting Factor and Comment:</u> 2B: Bridge Needed Question whether area can be accessed even with a bridge.											
<u>Rev Spec:</u>											
<u>Rev Cmnt:</u> Per request of wildlife											
<u>Rev Cmnt:</u>											

**Total Treatment
Acreage Proposed: 48.3**

Field Map

Compartment 148
 T24N, R9W, Sec. 17-20, 29, 30
 County: Wexford
 Unit: Cadillac
 YOE: 2007
 Acres: 1,958 GIS Calculated
 Stand Examiner: Jason Hartman
 Map Revised: 10/10/2005
 Map Phase: Pre-Review



18	17
19	20
30	29



Legend

- State/Federal Highway
- County Road/Major Street
- Street/Local Road
- Future Road
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Stand Boundaries

Treatments

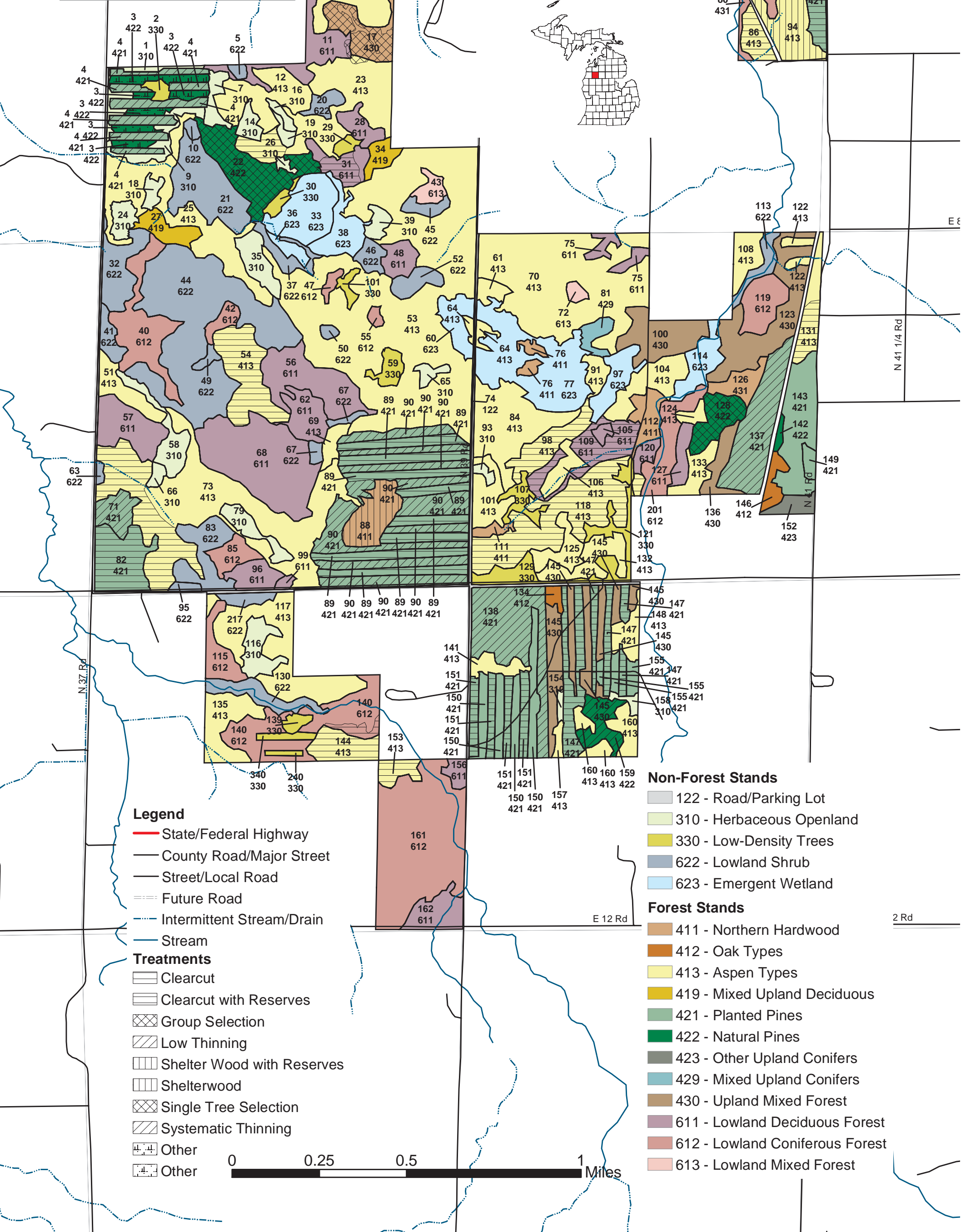
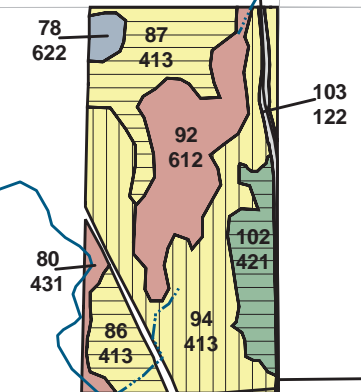
- Clearcut
- Clearcut with Reserves
- Group Selection
- Low Thinning
- Shelter Wood with Reserves
- Shelterwood
- Single Tree Selection
- Systematic Thinning
- Other
- Other



Cover Type & Treatment

Compartment 148
 T24N, R9W, Sec. 17-20, 29, 30
 County: Wexford
 Unit: Cadillac
 YOE: 2007
 Acres: 1,958 GIS Calculated
 Stand Examiner: Jason Hartman
 Map Revised: 10/10/2005
 Map Phase: Pre-Review

18	17
19	20
30	29



Legend

- State/Federal Highway
- County Road/Major Street
- Street/Local Road
- Future Road
- Intermittent Stream/Drain
- Stream
- Treatments**
- Clearcut
- Clearcut with Reserves
- Group Selection
- Low Thinning
- Shelter Wood with Reserves
- Shelterwood
- Single Tree Selection
- Systematic Thinning
- Other
- Other

Non-Forest Stands

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland

Forest Stands

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest



E 12 Rd

N 41 1/4 Rd

Old US 131

N 37 Rd