



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 219 ENTRY YEAR: 2012

GIS Compartment Acreage: 403 County: Crawford

Revision Date: 4/20/2010

Stand Examiner: Patrick Cotant

Legal Description: Sections 31 and 32, T27N-R3W, Crawford County

Management Goals: To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

Military Mgt Objective (for military board lands and long term lease lands):

To provide an area that allows for National Guard training while maintaining forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment.

Soils and Topography: The compartment is flat to very gently rolling terrain. There are three major soil type associations within this compartment. They are; Croswell Sand, Au Gres sand and Tawas-Leafriver Mucks. Croswell Sand is classified as being moderately well drained and is common on outwash plains and stream terraces. Erosion and windthrow possibilities are slight. Au Gres sand is somewhat poorly drained and is also common on outwash plains and stream terraces. Erosion and windthrow possibilities are slight. Tawas-Leafriver Mucks are classified as being very poorly drained with little erosion hazard and high windthrow hazard depending on exposure to wind.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is broken up by private land throughout. Multiple parcels of state land within the compartment have been disposed over the past twenty years, resulting in the small size compartment we have now. State lands were given to Crawford for the County Fairgrounds and the Animal Shelter. Other lands have been disposed of for private consolidation and development. The parcel lying east of I72 in the SE1/4 of Section 32 was given to Grayling Township under a public use deed for purposes of a township park. Due to dissent from nearby residents and access problems, this property was turned back to the State shortly after its disposal. Part of the compartment is under the Military 10 year lease agreement. The military tank trail does cross through section 31.

- **10 Year Management Agreement Lands:** State ownership is under the 10 year management agreement with the Michigan National Guard. This agreement allows for camping and maneuvers, but does not allow use of heavy equipment or high intensity live ammunition firing. Tracked vehicles are prohibited on these lands except to cross on designated tank trails. Wheeled vehicles are restricted to existing trails and are not to be driven cross country. MDNR management activities take precedence on these lands, though we try to tailor management activities so they are compatible with National Guard training needs.

This area is subject to lots of illegal trash dumping on state land due to its proximity to residential areas. There also is some illegal ORV use noted originating from the residential area.

A parcel of state land in section 32, located just east of I-75, has no legal access since it was bisected from other state ownership when the freeway was constructed. It was recommended ten years ago this parcel be disposed of via auction as excess. This recommendation is being continued. This land, encompassed by stand 25 is not usable by most public and is recommended for disposal via public auction.

Unique, Natural Features (include only non-site specific and non-sensitive information): The East Branch of the AuSable River, A designated natural river, flows through this compartment. There is also a swamp that has groundwater influence and seeps that flow into the East Branch in many locations. Natural River restrictions apply to this watercourse.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): No features to report at this time.

Special Management Designations or Considerations: Natural River designation on the East Branch of the AuSable river.

Watershed and Fisheries Considerations: The East Branch of the AuSable river provides fishing opportunities within this compartment. Natural River designations apply to this river. Watershed considerations should be carried out with any management activities near the river.

Wildlife Habitat Considerations: Wildlife habitat is good throughout the compartment. Private land ownership does break up the compartment somewhat however management activities on state owned lands have maintained and improved much of the habitat in this area.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of 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 that was previously used as a building stone. The nearest gravel pit is two miles to the north, and gravel potential is limited. There are no current oil and gas leases. The lands in the NE1/4 and SESE of Section 31 are classified as development. The remainder of the compartment is classified as non-development due to wetlands and/or military leases.

Vehicle Access: Vehicle access to this compartment is mainly from M-93 and Lewiston Grade Rd. Lewiston Grade Rd is a county gravel rd. This road provides access to Roberts rd which also allows access to other portions of the compartment. Forest roads and 2-tracks are not as numerous in this compartment but still provide ample access to state land.

Survey Needs: No survey needs at this time.

Recreational Facilities and Opportunities: A designated snowmobile trail #47 and the Shore-to-Shore Riding Hiking trail are located within this compartment. Hunting and fishing also occur within this area throughout the respective seasons and timber management has been carried out to improve each of these activities.

Fire Protection: Fire protection is of concern in this area and suppression activities are carried out by the State of Michigan wildland fire program.

Additional Compartment Information:

LOTS Compartment Acreage: 403 acres

- **The following reports are available:**
 - ◆ **Cover Type by Age Class**

- ◆ **Proposed Treatment Summaries**
 - ◆ **Dedicated Conservation Area Details**
 - ◆ **Listing of Forested Stands**
 - ◆ **Listing of Non-Forested Stands**
 - ◆ **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, recreation trails and facilities**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Special Conservation areas**

Stand Boundary Map

Compartment 219
 T27N, R03W, Sec. 31, 32
 County: Crawford
 Unit: Grayling
 YOE: 2012
 Acres: 403 GIS Calculated
 Stand Examiner: Patrick Cotant
 Map Revised: 9/08/2010
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Trails
- Snowmobile Trails
- Hiking Trails
- Horse Trails
- Interstate Highway
- State Highway
- Stand Boundaries

Forest Stands

LVL3COVER

- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

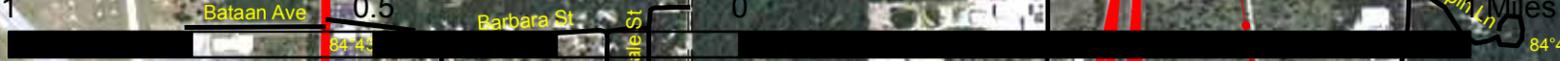
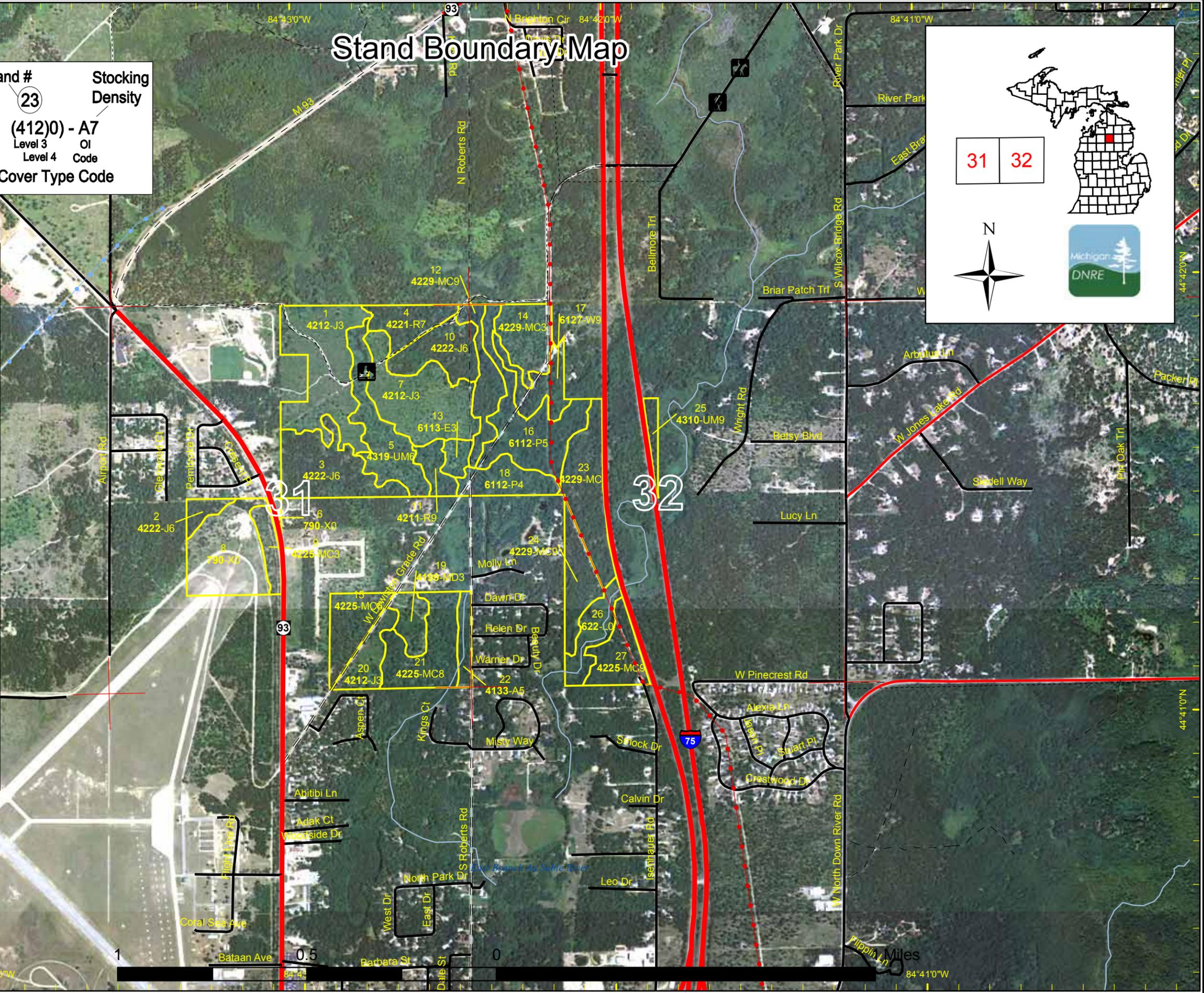
Non-Forest Stands

Level 3

- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated

31 32

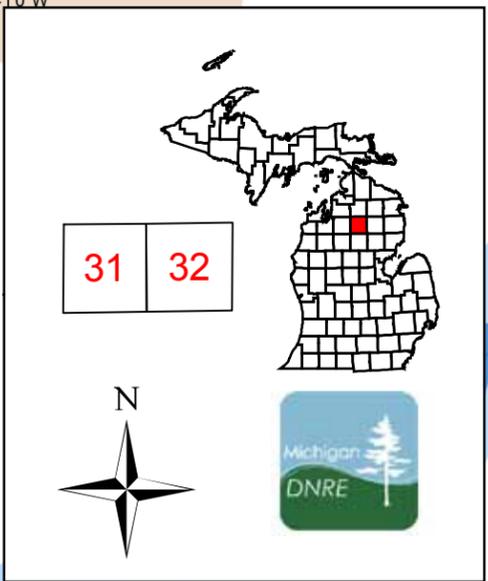
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Dedicated & Proposed Special Conservation Area Map

Compartment 219
 T27N, R03W, Sec. 31, 32
 County: Crawford
 Unit: Grayling
 YOE: 2012
 Acres: 403 GIS Calculated
 Stand Examiner: Patrick Cotant
 Map Revised: 8/10/2010
 Map Phase: Pre-Review

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



Legend

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Research, Development, and Military Lands
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer
- Forest Stands**
- LVL3COVER**
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
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- Non-Forest Stands**
- Level 3
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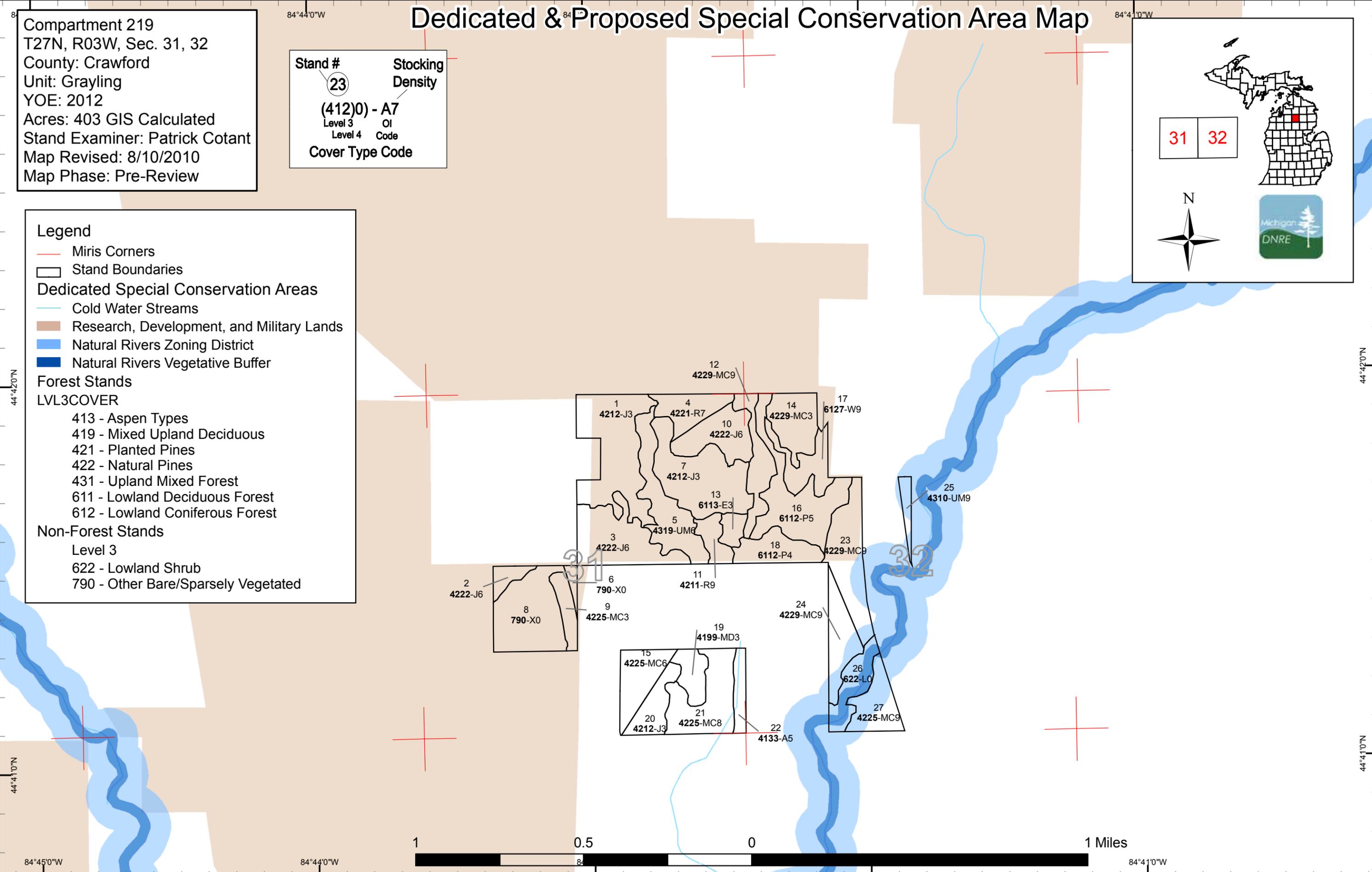
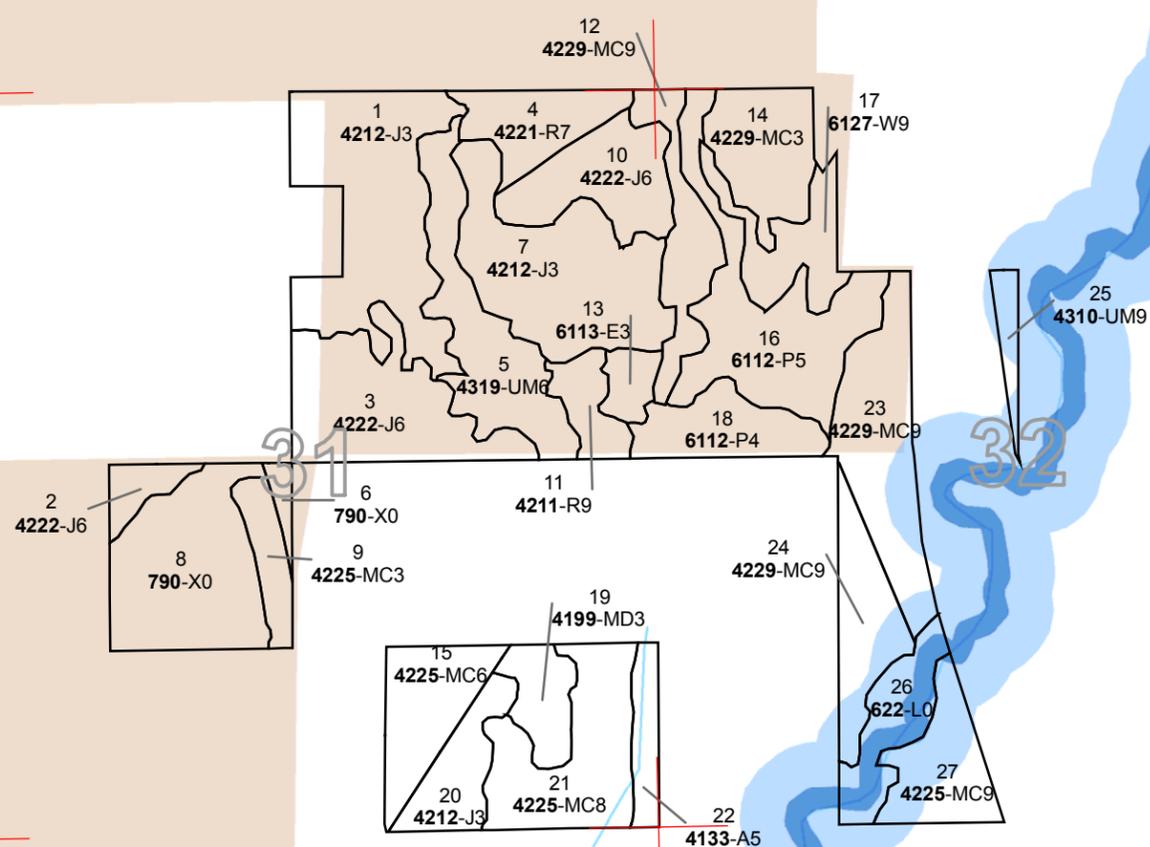


Table 1 – Total Acres by Cover Type and Age Class

Data updated before 2:00 PM



	Age Class														Total	
	Non-Forested	1-9	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
Aspen	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Bare/Sparsely Vegetated	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Jack Pine	0	0	80	0	0	0	46	0	0	0	0	0	0	0	0	126
Lowland Aspen/Balsam Poplar	0	0	0	0	12	28	0	0	0	0	0	0	0	0	0	41
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12
Lowland Deciduous	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Mixed Upland Deciduous	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
Natural Mixed Pines	0	0	0	0	22	14	0	24	22	14	13	0	0	13	0	121
Red Pine	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	18
Upland Mixed Forest	0	0	0	0	22	0	0	0	0	4	0	0	0	0	0	26
Total	41	0	88	4	56	42	52	42	22	17	13	12	0	13	0	403



Table 2 – Proposed Treatment Summaries

Data updated before 2:00 PM

Grayling Mgt. Unit
Year of Entry 2012

Compartment 219
Total Compartment Acres: 403.2

Acres by Treatment Type

Commercial Harvest - 78	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Jack Pine	26	0	0	0	0	0	26
Lowland Aspen/Balsam Poplar	28	0	0	0	0	0	28
Natural Mixed Pines	24	0	0	0	0	0	24
Total	78	0	0	0	0	0	78

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Data updated before 2:00 PM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3 72219003-Cut	25.9	42220 - Natural Jack Pine	High Density Pole	53	Harvest	Clearcut with Reserves	Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription: Treat stand by final harvesting jack pine while protecting oak regeneration. Leave 1-2 islands of representative timber placed to also provide for aesthetic values.

Other Comments:

Next Steps: Plant stand to red pine using plantation spacing, plant around pockets of oak regeneration.

16 72219016-Cut	28.3	6112 - Lowland Aspen	Medium Density Pole	45	Harvest	Clearcut	Aspen	Cmpt. Review Proposal
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Prescription: Final harvest all trees 2" or greater in DBH. Do not cut any red or white pine and all oak trees marked with green paint.

Other Comments: Stand is on proposal under tsale contract 72-001-07-01, Lewiston Grade Aspen Pilot. Set up by Patrick Potter.

Next Steps:

23 72219023-Cut	23.6	42290 - Natural Mixed Pine	High Density Log	65	Harvest	Clearcut with Reserves	Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription: Final harvest all trees 2" or greater except red and white pine and green marked oak trees.

Other Comments: Stand is on proposal under tsale contract 72-001-07-01, Lewiston Grade Aspen Pilot. Sale set up by Patrick Potter.

Next Steps:

**Total Treatment
Acreage Proposed: 77.7**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

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Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2012



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comments:

Next
Steps:

**Total Treatment
Acreage Proposed: 0**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42120 - Planted Jack Pine	High Density Sapling	37.5	14		planted jp stand with some deciduous species present, most notably oaks, rm and aspen. jp is growing well, higher water table present in this area.
2	42220 - Natural Jack Pine	High Density Pole	4.1	50		jp oak stand w/in airport fencing. looks to be growing ok.
3	42220 - Natural Jack Pine	High Density Pole	25.9	53		jp stand w/ oak present-heavier component in southern portions of stand. very few rp w/in stand. hawthorn dense in places of understory.
4	42210 - Natural Red Pine	Low Density Log	11.6	66		New stand added. red pine stand, all jp, asp, oak and rm were removed last yoe, rp left. low ba, good regen of rm, some oak. pockets of asp regen. this is a new stand, originally part of stand 7, north of snowmo trail. rp cored to be 66 years of age, regen 2 years old from cutting record.
5	4319 - Mixed Upland Forest	High Density Pole	22.4	38		New stand added-western portion of orig stand 8. mixed stand of jp, rm, oaks, large rp/wp and occasional pb. jp is pole sized, rm/oaks are sap/pole w/ occasional log sized trees. small wet area/drainage in northern finger of stand
7	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	32.2	14		jp plantation growing well with oak, rm and occasional wp present. overall stand is in good shape.
9	42250 - Pine, Oak	High Density Sapling	6.5	30		mixed jp/oak stand, small dbh. not great quality, some pockets of thick oak rregen.
10	42220 - Natural Jack Pine	High Density Pole	16.4	51	111-140	jp stand w/ some rp present. occasional oak and red maple. lots of browse on understory oak. ba ranges from 100-180. jp growing fairly well, declining in spots.
11	42110 - Planted Red Pine	High Density Log	6.4	66	141-170	rp stand w/ some jp and large wp. oaks in understory, occasional aspen as well.
12	42290 - Natural Mixed Pine	High Density Log	12.7	130	81-110	mixed pine stand w/ aspen and rm in low numbers. wp, rp and jp present w/ jp more prevalent in western/southern portions of stand. rp/wp higher density and quite large dbh in eastern areas of stand. some h2o influence throughout stand.
13	6113 - Lowland Maple	High Density Sapling	4.2	25		New stand added. rm, birch and qa present. lowland influence in pockets, high h2o table in area. oaks present on hummocks.
14	42290 - Natural Mixed Pine	High Density Sapling	15.2	36		mixed stand of wp/jp with aspen, rm and oaks prevalent. pines are bushy in form. aspen clones=poor quality.
15	42250 - Pine, Oak	High Density Pole	14.1	40		mixed jp/oak stand w/ occasional aspen and wp pockets. some lowland areas w/in stand. jp/oak are variable in terms of size. oaks are poor quality.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	6112 - Lowland Aspen	Medium Density Pole	28.3	45	51-80	aspen/conifer stand that has been set up and has been purchased. after harvest stand will develop into a3 stand with wet site species throughout.
17	6127 - Lowland Pine	High Density Log	11.8	100	141-170	mixed lowland conifer stand, not overly wet but adjacent to swamps and definitely w/ h2o influence. large wp w/ pockets of rp. lots of bf and occasional cedar.
18	6112 - Lowland Aspen	Low Density Pole	12.4	30		open grown aspen stand with some black ash and red maple. stand is lightly stocked with these above mentioned species, the remainder being a tag alder stand with thick cover provided by the alder and low growing shrubs. .
19	4199 - Other Mixed Upland Deciduous	High Density Sapling	8.0	16		New stand added. aspen/oak stand that had aspen, cherry and red maple removed during harvest 15-20 years previous. What is left is oak overstory with aspen, red maple, oak and cherry regeneration present. oak is variable sizes with saplings and logs present due to residual that was left after harvest.
20	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	10.2	18		jp plantation w/ aspe, rm and oak regenerating heavily in places as well. some areas of stand were not planted because of natural regen, these areas may be separated next yoe as new stands. this is most notable in northern parts of stand. oak overstory is also more dense in northern portions-approx 5-10BA. overstory rp and oak were left w/in stand boundary.
21	42250 - Pine, Oak	Medium Density Log	22.3	78	51-80	mixed oak/p9ne stand with varying dominance by rp, wp and oaks. all aspen and rm were removed last harvest so understory is thick w/ these two species, accompanied by wp as well. hawthorn is thick in places.
22	4133 - Aspen, Mixed Pine	Medium Density Pole	5.7	50	51-80	swamp aspen stand with wp/rp inclusion around perimeter. tamarack in pockets, scattered birch and oak. aspen variable in terms of quality and stocking.
23	42290 - Natural Mixed Pine	High Density Log	23.6	65	81-110	mixed stand of pine/deciduous. prescribed and on proposal to be harvested.
24	42290 - Natural Mixed Pine	High Density Log	13.6	80	111-140	New stand added. mixed stand of red pine, jp, wp and oak. scattered other deciduous. entire stand is variable in terms of size. rp most dominant w/ pockets of other species being more prevalent.
25	4310 - Pine, Oak Mix	High Density Log	3.6	80	81-110	mixed stand of oak and pine, isolated with no access. stand is on upland, quickly sloping to river along eastern edge. *No legal access to stand, it is cut off by I-75. It is recommended it be disposed of as excess via auction.*
27	42250 - Pine, Oak	High Density Log	13.4	96	81-110	mixed oak pine stand with large rp/wp. jp is beginning to drop out, oak is relatively poor-fair quality but declining in places. nice oak/wp regen in areas.



Stand	Cover Type	Acres	Gen Cmts:
6	790 - Other Bare/Sparsely Vegetate	1.9	m-93 and ROW on east and west sides of road
8	790 - Other Bare/Sparsely Vegetate	28.1	edge call, airport, classified as other bare/sparsely veg.
26	6220 - Alder/willow	11.5	Stand swapped from Forested to Non-Forested. lowland alder stand w/ east branch ausable running through stand. lowland conifers present especially in southern portions of stand. lots of wildlife use throughout.



7 – 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.

Data updated before 2:00 PM

Stand	SCA Type	SCA Name	Acres	Comments
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8 – 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.

Data updated before 2:00 PM

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
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.
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.
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.