



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 238 ENTRY YEAR: 2011

GIS Compartment Acreage: 1,811 County: Crawford

Revision Date: August 12, 2009

Stand Examiner: Joan Charlebois

Legal Description: T27N R3W Sections 23, 26, 35

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

Soil and Topography: The terrain is primarily outwash plains on Grayling Sand, with one steep ridge paralleling the south side of Jones Lake Road. Graycalm-Grayling sands occur on some of the rolling terrain, and organic soils border the East Branch of the AuSable River floodplain.

Ownership Patterns, Development, and Land Use in and Around the Compartment: All state land within the compartment is either owned by the Military Board or is under the long-term lease agreement L-1479 (Act 154 P.A. 1935) with the Michigan National Guard, DMA for purposes of military training. On these lands, military needs take precedence over resource management activities. The DNR will coordinate all prescribed activities with the National Guard to ensure that they are compatible with military training needs. Private ownership along the river and Jones Lake Road in Section 23 consists of small tracts with a mix of seasonal and year-round residences. Hartwick Pines State Park lands are located to the north in Section 14.

Unique, Natural Features: The East Branch of the AuSable River cuts through a corner of the compartment. There is the potential for dry prairie plants and rare insects to be found in grassy openings and areas of young jack pine.

Archeological, Historical, and Cultural: None known

Special Management Designations or Considerations: The Michigan Army National Guard's fenced MPRC (Multi-Purpose Range Complex, formerly known as Range 30) covers two-thirds of the compartment. The East Branch of the AuSable River corridor is a High Conservation Value Area (HCVA).

Watershed and Fisheries Considerations: The East Branch of the AuSable River, part of the AuSable's Natural Rivers designation, crosses through a corner of the compartment.

Wildlife Habitat Considerations: Specific wildlife habitat management activities are limited by military use in the area, however, a broad range of species would benefit by maintaining the current mix of grass, upland brush, jack pine, oak and aspen cover types.

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 was previously

used as a building stone. A gravel pit is located one mile to the northeast and potential is good on the upland areas. None of the Compartment is currently leased for oil and gas development.

Vehicle Access: Access to the north and south ends of the compartment is adequate from county roads, including Jones Lake, Karen Lake, Peters and North Down River Roads. The MPRC is fenced, with access coordinated by Range Control.

Survey Needs: None

Recreational Facilities and Opportunities: With the compartment's mix of upland aspen, jack pine, oak and U-types, there is good potential for hunting a variety of game species. The compartment does not contain any designated recreational trails or facilities. The compartment is adjacent to Hartwick Pines State Park.

Fire Protection: A cleared fuelbreak is maintained outside of the range fence. Water sources for fire suppression include nearby river crossings on Bobcat Trail, Wilcox Bridge Road and the Tank Access Trail. There is the potential for encountering unexploded military ordinance near the range.

- **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**

Cover Type & Treatment Map

Compartment 238
 T27N, R03W, Sec. 23, 26, 35
 County: Crawford
 Unit: Grayling
 YOE: 2011
 Acres: 1,811 GIS Calculated
 Stand Examiner: Joan Charlebois
 Map Revised: 8/31/2009
 Map Phase: Pre-Review

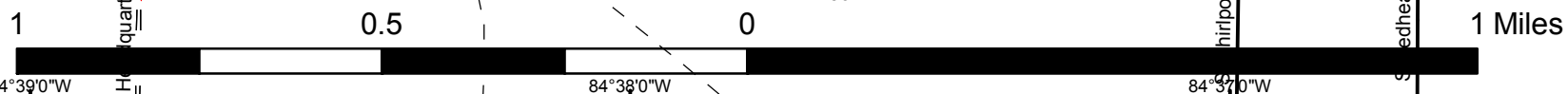
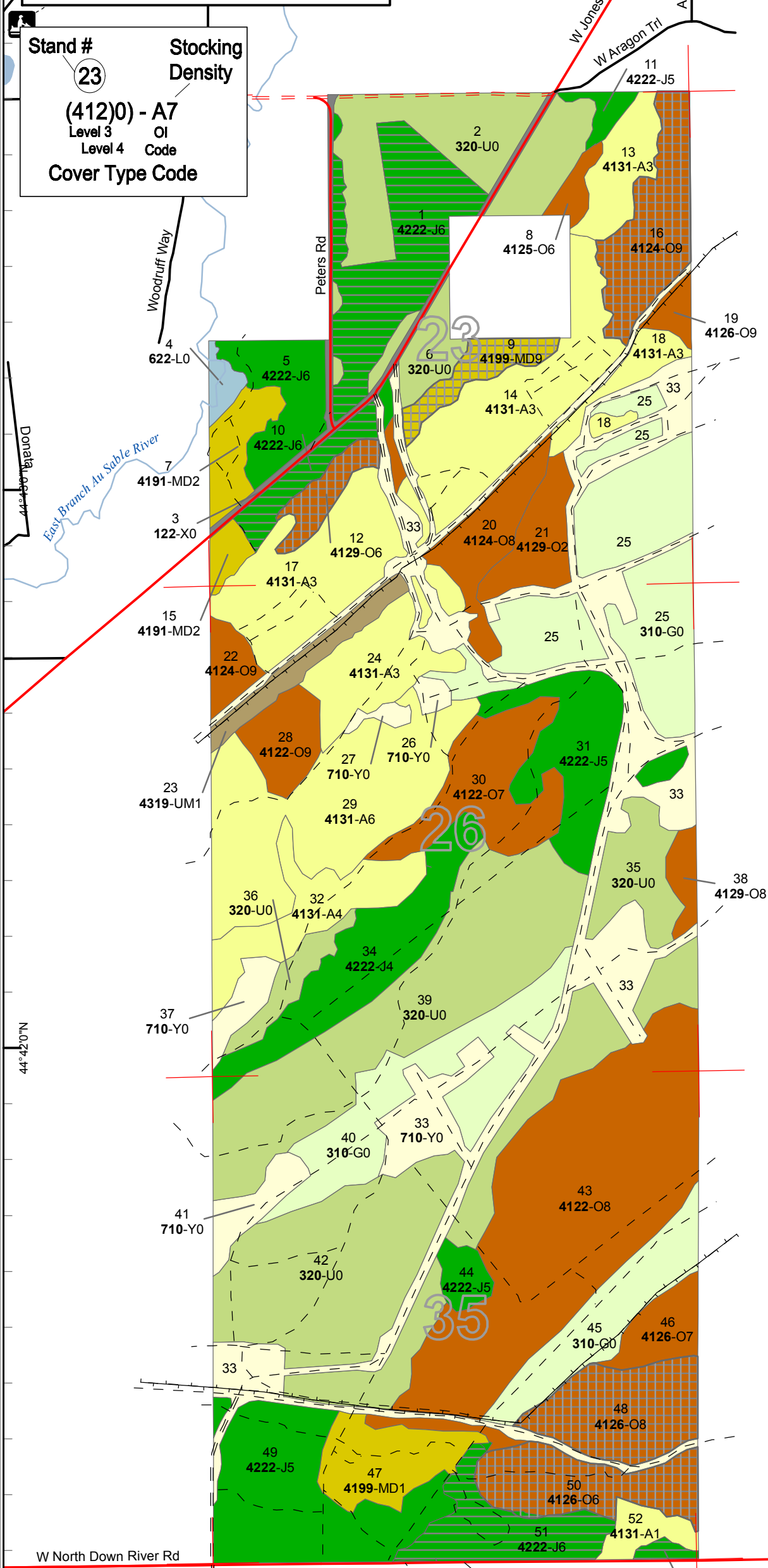
Stand # **23**
 Stocking Density
(412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

23
 26
 35



Legend

- Miris Corners
- County Paved Road
- Paved Road
- = County Gravel Road
- = Gravel Road
- - Poor Dirt Road
- Military Fence
- Intermittent Stream/Drain
- Stream
- Trails
- Snowmobile Trails
- Lakes and Rivers
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Forest Stands**
- Level 3**
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 622 - Lowland Shrub
- 710 - Sand, Soil



84°39'0"W 84°38'0"W 84°37'0"W

44°42'0"N

44°41'0"N

44°43'0"N

44°43'0"N

44°44'0"N

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Stand Boundary Map

23
 26
 35



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

Legend

- Miris Corners
- County Paved Road
- Paved Road
- = County Gravel Road
- = Gravel Road
- - Poor Dirt Road
- Intermittent Stream/Drain
- Stream
- Military Fence
- - - Trails
- Snowmobile Trails
- Stand Boundaries

Forest Stands

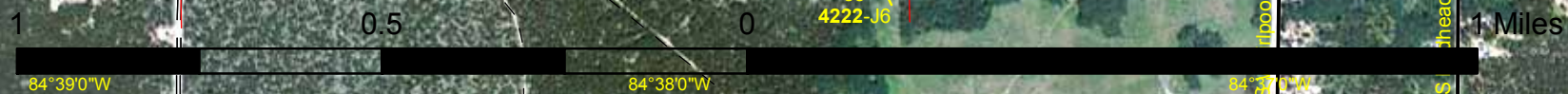
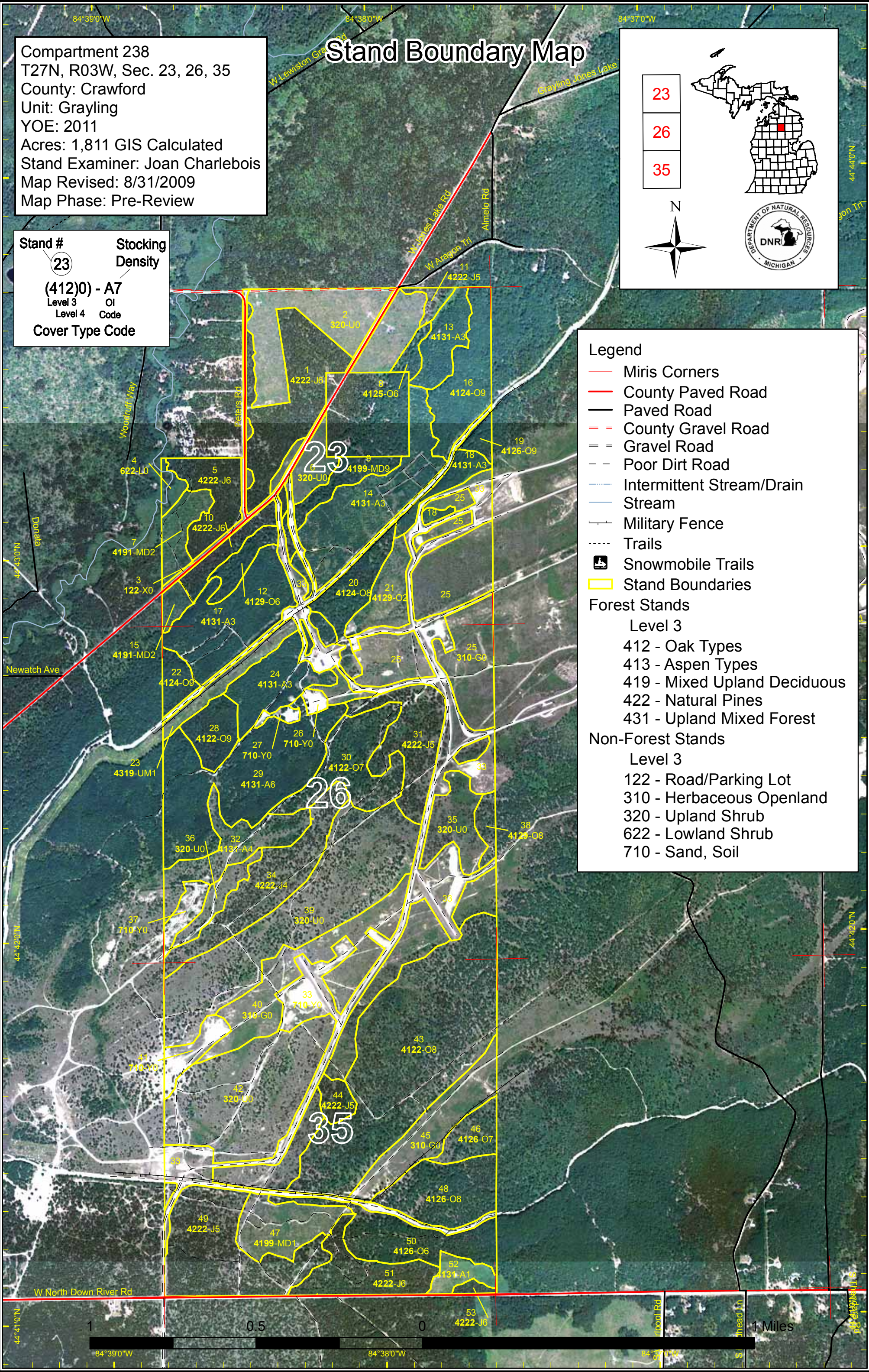
Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 431 - Upland Mixed Forest

Non-Forest Stands

Level 3

- 122 - Road/Parking Lot
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84°39'0"W

Dedicated & Proposed Special Conservation Area Map

Compartment 238
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23
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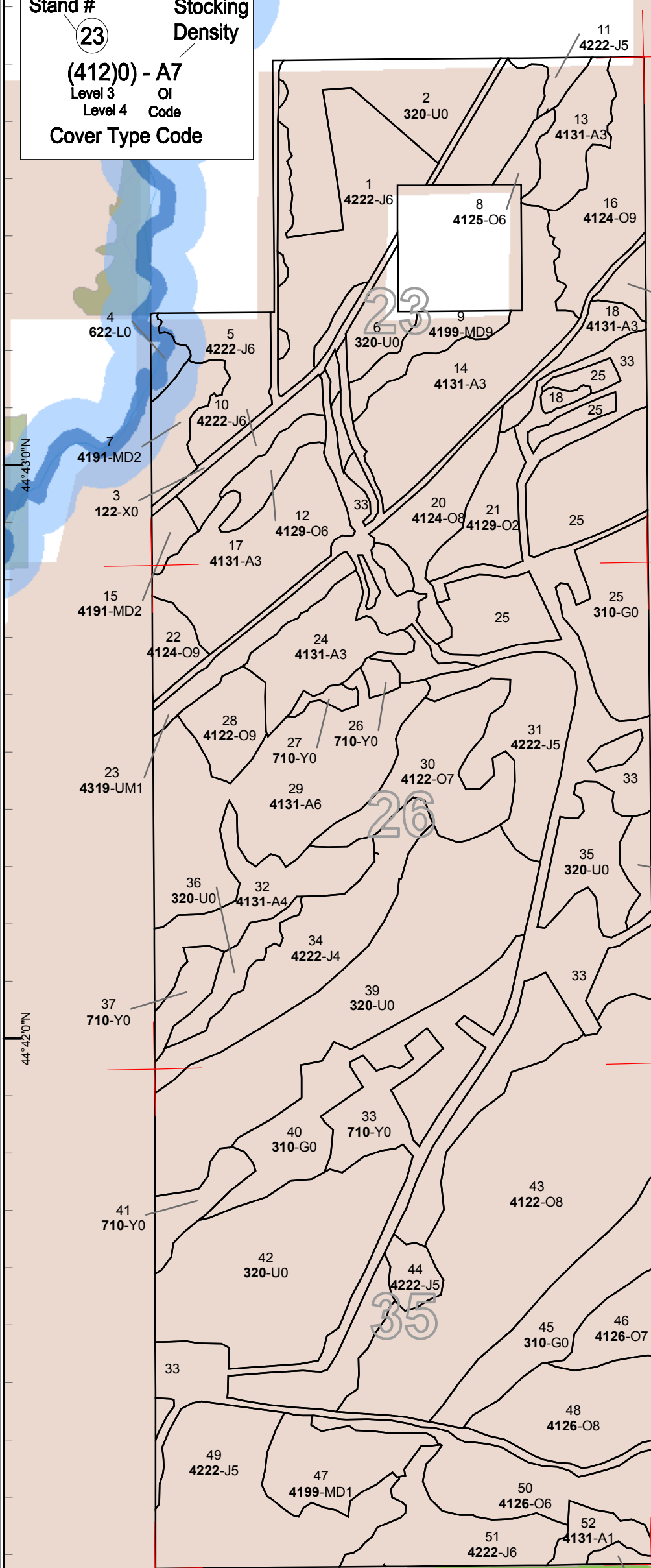


44°44'0"N

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
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat
- OI Special Conservation Areas
- Research, Development, and Military Lands
- Forest Stands**
- Level 3
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- Non-Forest Stands**
- Level 3
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 622 - Lowland Shrub
- 710 - Sand, Soil



44°42'0"N

44°42'0"N

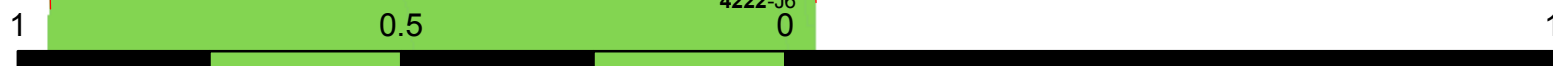
44°41'0"N

44°41'0"N

84°39'0"W

84°38'0"W

84°37'0"W



1 Miles



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
1 72238001_cc	53.8	42220 - Natural Jack Pine	High Density Pole	59	Harvest	Clearcut with Reserves	Planted Jack Pine

Rev Cmnt: Possible yard trespass on east side near private forty inholding.

Rev Spec: Final harvest merchantable JP. Leave all other species. For retention, delineate 5 approximately half-acre islands, located to mitigate the harvest's visual impact.

Next Steps: Trench and plant JP, avoiding areas with oak regen.

9 72238009_see d	12.8	4199 - Other Mixed Upland Deciduous	High Density Log	77	Harvest	Seed Tree with Reserves	Mixed Upland Deciduous with Conifer
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Rev Cmnt:

Rev Spec: Leave 30 BA of the healthiest oak in addition to any WP or RP. Cut all red maple, aspen and jack pine, except leave 1-2 live JP per acre for additional seed source. Protect snags.

Next Steps: Natural regen goal is mixed upland deciduous with conifer.

10 72238010_cc	12.3	42220 - Natural Jack Pine	High Density Pole	55	Harvest	Clearcut with Reserves	Planted Jack Pine, Mixed Deciduous
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Rev Cmnt:

Rev Spec: Cut merch JP, protect nice oak saps, mark to leave scattered healthier oak for visual. For retention, create 2 approximately half-acre islands along Jones Lake Road.

Next Steps: Trench and plant JP, avoiding areas with advanced regen.

12 72238012_see d	10.7	4129 - Mixed Oak	High Density Pole	54	Harvest	Seed Tree with Reserves	Mixed Upland Deciduous with Conifer
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Rev Cmnt:

Rev Spec: Leave 30 BA of the healthiest oak in addition to any WP or RP. Cut all red maple, aspen and jack pine, except leave 1-2 live JP per acre for additional seed source. Protect snags.

Next Steps: Natural regen goal of mixed upland deciduous with conifer.

16 72238016_see d	34.3	4124 - Red with White Oak	High Density Log	65	Harvest	Seed Tree with Reserves	Mixed Upland Deciduous with Conifer
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Rev Cmnt: Was prescribed for treatment with the rest of the type in adjacent compt 239 (stand 27), but that decision was not recorded in the adjacent stand's comments. Stand 27 compt 239 was marked to 30 BA and is on contract (#726180501).

Rev Spec: Mark to leave 30 BA of the healthiest oak, in addition to leaving all RP/WP and 1-2 JP per acre.

Next Steps: Natural regen goal is mixed upland deciduous.

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
48 72238048_see d	36.6	4126 - White, Black, N. Pin Oak	Medium Density Log	87	Harvest	Seed Tree with Reserves	Mixed Upland Deciduous with Conifer

Rev
Cmnt:

Rev Seed tree, marking to leave 10-20 BA of primarily white oak (that species is doing the best), and leave all RP/WP. Goal is to release the advanced oak
Spec: regen while leaving a seed source to replace that regen if it is wiped out by the next fire.

Next
Steps: Natural regen goal of mixed upland deciduous with pine.

50 72238050_see d	33.2	4126 - White, Black, N. Pin Oak	High Density Pole	89	Harvest	Seed Tree with Reserves	Oak, Pine
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Rev
Cmnt: No retention beyond the species reserved under the Rx specs

Rev Mark to leave 20-30 BA of the best oak for meeting the seed-source objective, but do not retain any oak within aspen clones. Leave all RP or WP. Cut
Spec: all merch aspen, red maple and jack pine.

Next
Steps: Natural regen goal of mixed upland deciduous and pine.

51 72238051-cc	29.1	42220 - Natural Jack Pine	High Density Pole	66	Harvest	Clearcut with Reserves	Mixed Upland Deciduous with Conifer
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Rev
Cmnt: No retention beyond the species reserved under the Rx specs

Rev Leave all oak, WP, RP for visual and additional seed source, cut merch JP & aspen only. Incorporate into one sale with small JP stand to E (53).
Spec:

Next
Steps: If natural regen (mixed upland deciduous and pine) is not successful, plant JP.

53 72238053_cc	2.5	42220 - Natural Jack Pine	High Density Pole	67	Harvest	Clearcut with Reserves	Mixed Upland Deciduous with Conifer
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Rev
Cmnt: No retention beyond the species reserved under the Rx specs

Rev Cut merch JP & aspen, leave all else and protect oak regen. Cut only if JP stand to W (51) is prescribed, and set up on one contract.
Spec:

Next
Steps: If natural regen (mixed upland deciduous and pine) is inadequate, plant JP.

**Total Treatment
Acreage Proposed: 225.2**

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**



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Treatment Name	Acres	Stage1 Cover Type	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 1 of 1
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Limiting Factor
and Comment:

Rev
Cmnt:

Rev
Spec:

Next
Steps:

No Treatment
Reason

**Total Treatment
Acreage Proposed: 0**



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.

Inventory Method: IFMAP

Stand	SCA Name	Acres	Comments



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
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.
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	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.
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.