



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 254 ENTRY YEAR: 2011

GIS Compartment Acreage: 1,867 County: Crawford

Revision Date: 9/8/09

Stand Examiner: Patrick Cotant

Legal Description: T27N R2W, Section's 16, 17, and 18

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.

Soils and Topography: Topography within this compartment is flat to gently rolling with ridges in the northeast portions of the compartment as well as in the far western areas of the compartment. Level areas exist throughout the central portion of the compartment with exceptions in localized areas. The major soil complex present in this general area is Grayling sand with small inclusions of other types present, the most notable being Graycalm-Klackling sands. This association is found primarily on upland flats and low knolls which are dominated by jack pine stands commonly in association with red pine and oak species. This soil complex is characterized as being excessively drained with major management concerns including equipment limitation, seedling mortality and erosion from wind and water. Windthrow is also a concern throughout this soil type complex. There are small areas of lowland soils surrounding Kyle Lake. Soil types within these areas consist of Dawson-Loxley peats with inclusions of sandy soils throughout. Windthrow remains a concern in this area as well.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The entire compartment is comprised of Military Board lands intermixed with lease lands. Most of the compartment is under the 1935 long-term lease agreement L-1479 (Act 154 P.A. 1935) with the Michigan National Guard, Department of Military Affairs. The agreement provides for use by the military during their encampment, with no permanent buildings or improvements to be erected. Military needs take precedence over resource management needs on long-term lease lands. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs. Most of this compartment lies within the fenced area of Range 30.

Unique, Natural Features (include only non-site specific and non-sensitive information): Kyle Lake is located within this compartment. It lies within the Range 30 fenced area and is partially surrounded by riparian forests of varying age and size classes. It provides excellent habitat and a water source for various species of wildlife.

Special Management Designations or Considerations: Management within this compartment is dependent on military approval. Restrictions are applied based on military training schedules throughout this area.

Watershed and Fisheries Considerations: Kyle Lake is located within Range 30 of this compartment however access is restricted by the Range 30 fence. Typical concerns such as erosion and maintenance of riparian buffers should apply to this small body of water.

Wildlife Habitat Considerations: This compartment is valuable for many species of wildlife. Jack pine plantations that are dense and large in terms of acreage provide tracts of land used for thermal and protective cover throughout the year by many wildlife species. The open areas that are prevalent throughout this compartment are valuable for wildlife species as well. Upland brush and grasses provide forage and cover for many mammals and avian species. Management decisions within this compartment are influenced greatly by wildlife considerations.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift is the Marshall Sandstone. The Marshall was previously used as a building stone. A gravel pit is located in Section 12, to the northwest and potential is good on the uplands. Currently, there are no oil and gas leases in this compartment.

Vehicle Access: Access to the eastern portions of this compartment is adequate via county roads of Stephan Bridge Road,, Ketcham Truck Trail, and Bucks E-W Road. In addition forest roads follow most of the section lines, and two-tracks traverse many of the interior stands. Vehicular access to the western side of the compartment is limited due to the Range 30 fence. No access is permitted in this restricted area because of military training.

Survey Needs: No survey issues at this time.

Recreational Facilities and Opportunities: Hunting is the main recreational opportunity in this area. Despite the fact the compartment does not contain any designated recreational trails, snowmobile traffic is also quite heavy in the winter months.

Fire Protection: Fire protection is considered priority in this area because of its close proximity to large jack pine plantations on quite droughty soils. Many of the management decisions within this compartment are based on and influenced by the stands' probability to be a fire hazard before and after treatment. The compartment contains several maintained fuel breaks.

LOTS Compartment Acreage: _____

- **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**

Compartment 254
 T27N, R02W, Sec. 16, 17, 18
 County: Crawford
 Unit: Grayling
 YOE: 2011
 Acres: 1,867 GIS Calculated
 Stand Examiner: Patrick Cotant
 Map Revised: 8/28/2009
 Map Phase: Pre-Review

Stand #
 23
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Stand Boundary Map

Legend

- Miris Corners
- Paved Road
- == County Gravel Road
- == Gravel Road
- - Poor Dirt Road
- Military Range Fence
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Stand Boundaries

Forest Stands

Level 3

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

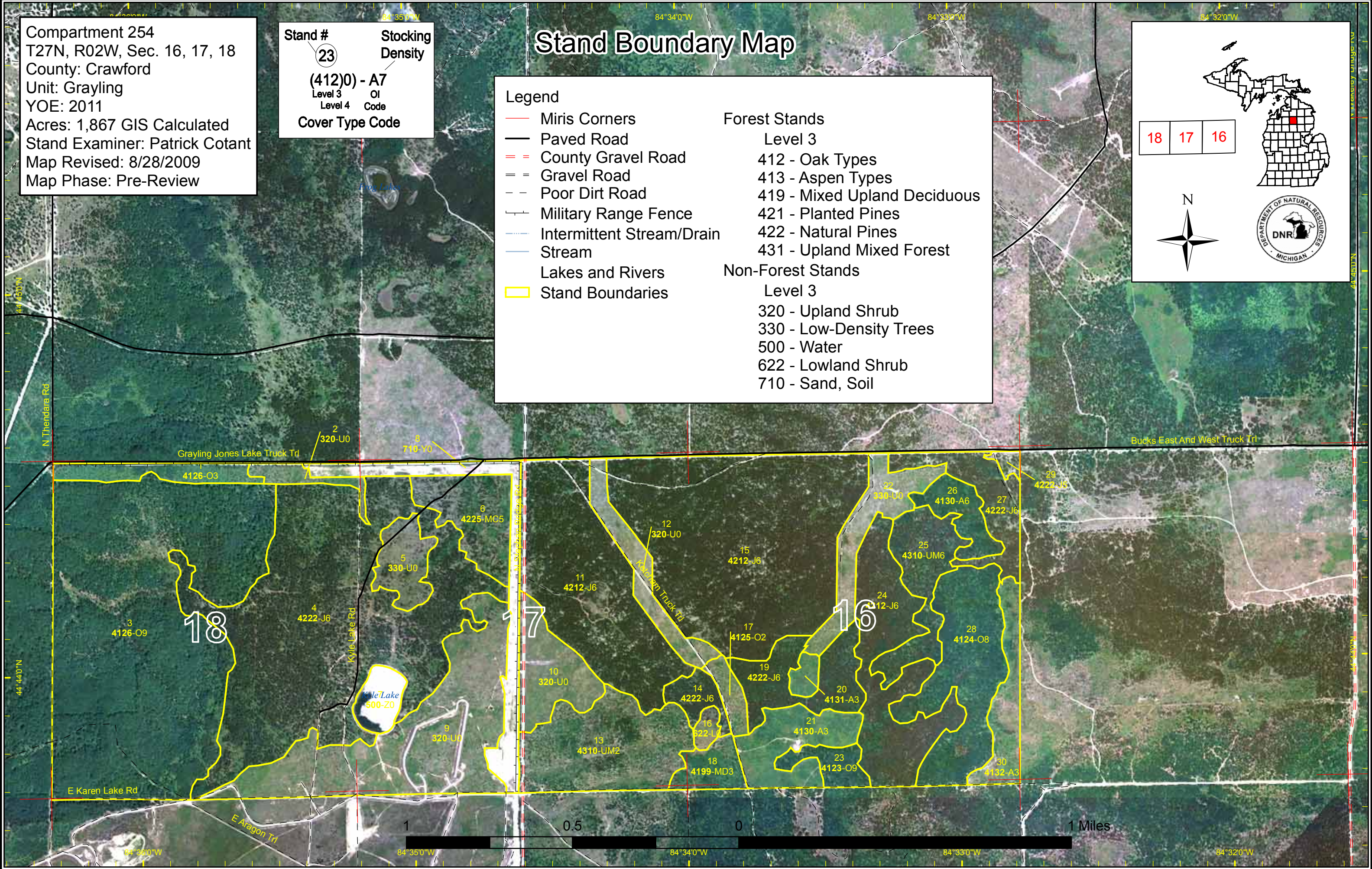
Non-Forest Stands

Level 3

- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 710 - Sand, Soil

18 17 16

N



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Stand #
 (23)
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Dedicated & Proposed Special Conservation Area Map

Legend

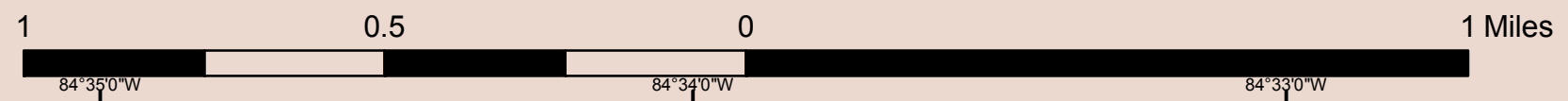
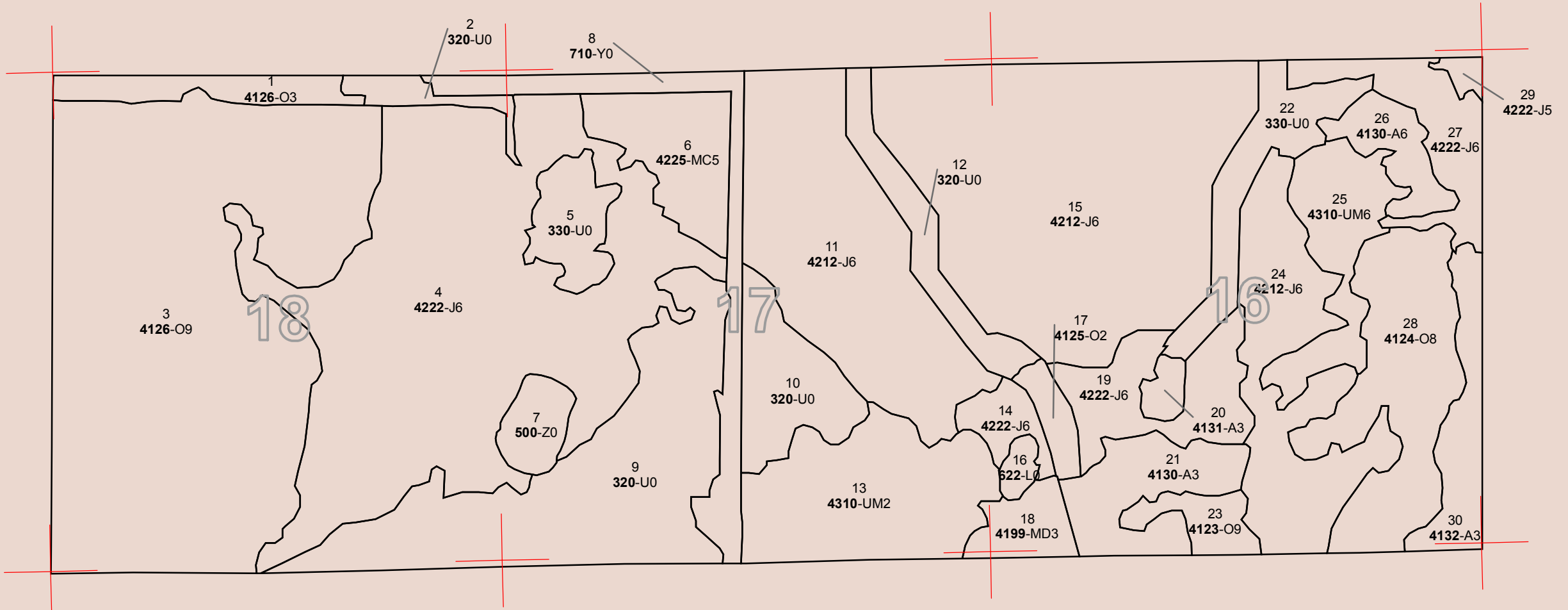
- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
 - Research, Development, and Military Lands
 - Ecological Reference Areas
- Forest Stands**
 - Level 3
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
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 - 320 - Upland Shrub
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84°32'0"W

18
17
16

N

44°45'0"N





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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
11 72254011-Cut	126.9	42120 - Planted Jack Pine	High Density Pole	54	Harvest	Clearcut with Reserves	Planted Red Pine, Mixed Deciduous

Rev Cmnt: Natural regeneration of jack pine, oak and cherry brush is expected, most likely in low numbers.

Rev Spec: Harvest jack pine stand with retention islands scattered throughout stand area. Open areas left to naturally regenerate should be left throughout the rest of the stand. Devote approximately 20-25 acres to retention within the stand in order to mimic a jack pine barrens ecosystem while also maintaining some structural diversity and aesthetically valuable properties within the stand.

Next Steps: If it is determined that some planting would be desirable, this should be left open as an option, pending military approval.

15 72254015-Cut	225.1	42120 - Planted Jack Pine	High Density Pole	53	Harvest	Clearcut with Reserves	Planted Red Pine, Mixed Deciduous
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Rev Cmnt: Natural regeneration of jack pine, oak and cherry brush is expected, most likely in scattered/low density.

Rev Spec: Final harvest stand with approximately 30-50 acres devoted to reserve islands throughout. Islands should be scattered throughout stand area with irregular open areas between. Retention should be applied so as to mimic the pine barrens ecosystem while also maintaining some structural diversity and aesthetics in the area.

Next Steps: If it is determined that planting of jack pine within some areas would be desirable, this should remain an option pending military approval.

19 72254019-Cut1	41.4	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	50	Harvest	Clearcut with Reserves	Oak, Aspen
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Rev Cmnt: If stand does not regenerate adequately, replant to jack or red pine.

Rev Spec: Harvest all jack pine, aspen, red/black/pin oak and red maple. Leave White Oak as a mast and seed source. Objective for stand is to get oak, aspen and jack pine regeneration while maintaining some larger overstory for wildlife and eventual DWD. Stand will need to be chip harvested but ideally jp cones will be dispersed throughout sale to help with natural regeneration. Whole tree skidding or delimiting would help this process.

Next Steps: Through a regeneration survey, determine stocking of regeneration and decide whether or not replanting will be necessary.

23 72254023-Cut	13.9	4123 - Red Oak	High Density Log	80	Harvest	Shelterwood	Oak, Pine
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Rev Cmnt: Stand composition shifts to slightly more pine species on eastern edge. Some topography will be encountered in this area as well.

Rev Spec: Shelterwood harvest stand by removing aspen and red maple and marking to leave 40 BA of best quality red and white oak. Also leave red pine within stand which constitutes a small percentage of overall BA. This will help to release oak understory which is quite significant in places. Aspen can be expected to establish where clones currently exist within the stand.

Next Steps: Monitor regeneration following harvest. If oak regeneration does not respond and red pine does not naturally regenerate, may want to think about underplanting stand with white pine.

26 72254026-Cut	20.2	4130 - Aspen	High Density Pole	50	Harvest	Clearcut with Reserves	Aspen, Oak
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Rev Cmnt: Stand is expected to regenerate to aspen with red maple, oak and some pine species present.

Rev Spec: Remove all aspen, red maple and jack pine. Leave oak species scattered throughout stand. No specific BA is necessary, focus on leaving the highest quality oak which will most likely be white oak, for diversity and a hard mast source within the stand.

Next Steps:

**Total Treatment
Acreage Proposed: 427.5**

**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**



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	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.