



**SAULT FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 22 ENTRY YEAR: 2010

Compartment Acreage: 3197 County: Chippewa

Revision Date: 8-11-2008

Stand Examiner: Jason Caron

Legal Description: T42N-R2E Sections 14, 15, 22, 23, 24, 25 & 26; Raber Township
T42N-R3E Sections 19 & 31; Detour Township

Management Goals: One of the larger compartments on the east side of the unit, this area is quite diverse and past management has included practices directed at both wildlife and timber. Management goals include developing an optimal age class distribution of aspen stands for sustainable forestry and wildlife values. Rotating hardwood treatments for optimal regeneration and stocking of all age classes. Maintain current openings as needed for diversity and enhancement of wildlife benefits. Provide public access for multiple use benefits such as hunting, gathering, ORV/snowmobile riding and camping while protecting the natural resource. This compartment is within the Huron Patterned Outcrop Management Area. Plans for this Management Area are currently being written.

Soil and Topography: Shelter-Posen-Summerville Association: Very deep and shallow, nearly level to very steep, somewhat poorly drained and well drained, loamy soils on ground moraines and glacial lake benches. Topography consists of some areas of gently rolling terrain, other areas are quite flat. Topography is generally upland and flat with areas of cedar swamps and lowland areas.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Generally a block of state ownership but several in holdings exist. For the most part the in holdings are used for recreational purposes. Ownership patterns in and around has been relatively stable for the last two decades.

Unique, Natural Features: Foreman Lake, the headwaters of Albany creek, falls within the west side of this compartment. McAdams Lake is a small lake within a cedar swamp in section 22. Big Trout Lake is a decent sized lake within section 31 and is the only lake of the three with no legal access because the state holdings are landlocked. MNFI shows moose and the common loon for elemental occurrences within the compartment. An occurrence of Walking Fern is just outside of the compartment. These occurrences will be closely monitored when setting up treatments within the compartment.

Archeological, Historical, and Cultural Features: No known occurrences within this compartment.

Special Management Designations or Considerations: The vegetative diversity of this compartment allows for management of many species. Past management has centered on timber and game.

Watershed and Fisheries Considerations: This compartment contains Foreman Lake (headwaters for Albany Creek), McAdams Lake, Big Trout Lake, and the headwaters to Trout Creek, a cold transitional stream. No treatments are scheduled near these streams.

Wildlife Habitat Considerations: Conifer cover within the deer yard portion of the compartment will be maintained. Chesnut-sided warbler and broad-winged hawk were observed within the compartment. Sharptail grouse are known to winter in this area. Several ephemeral wetlands and streams and permanent wetlands are within this compartment.

General Wildlife Objectives and Considerations:

1. Ephemeral wetlands/intermittent streams

Despite their small size, ephemeral wetlands and intermittent streams are critically important to reptile and amphibians and contribute to the overall forest biodiversity (MI Wildlife Action Plan – wetlands: ephemeral wetlands).

Terrestrial habitats within 100 ft of ephemeral wetlands and intermittent streams will be left uncut following to protect water quality BMP guidelines. Mature, undisturbed forests surrounding wetlands are important because harvest practices can degrade habitat suitability for dependent wildlife species, particularly reptiles and amphibians. Soil temperatures increase and humidity decreases with loss of canopy closure, rutting in low areas can disrupt species movement, harvested areas have lower dead and down woody debris, and exposed soils combined with large rain events after harvest can introduce sedimentation impacting water quality and quickly fill in small isolated wetlands.

Adjacent to the water quality buffer, management of the adjacent terrestrial habitat up to 500 ft will incorporate the life requirements of reptile and amphibian species. Harvest within this core habitat zone will avoid peak breeding periods of Apr. 15 – July 15th, when logistically feasible. Retention patches, particularly with clear cut stands, will be placed adjacent to wetland buffers or between wetlands within a stand to increase protection and connectivity.

2. River/Marsh

Maintaining mature, closed canopy forest types adjacent to rivers, lakes, ponds will benefit numerous wildlife species. Wood ducks, hooded mergansers, bald eagle, osprey, numerous passerines, red-shouldered hawk, black bear, fisher, marten, and other aquatic fur bearers are some species which utilize mature forests adjacent to water bodies.

Emphasis of mature forest community elements adjacent to water quality buffers will maximize wildlife value. Retention patches, particularly with clear cuts, will be placed adjacent to or between wetlands within a stand increase protection and connectivity. Harvest within 500 ft will avoid peak breeding reptile and amphibian breeding periods of Apr. 15 – July 15th, when logistically feasible.

3. Oak

Retention of oak is now particularly important given the significant loss of beech across the landscape. Management which encourages and protects mast producing species such as oak will benefit numerous wildlife species such as white-tailed deer, grouse, bear, rodents, and wild turkey.

4. Cedar/conifer/fir/spruce within deer yards

One of the primary objectives within deer yards is to maintain a dense canopy cover which serves as an intercept to snow accumulation during winter. To maintain this cover, retention of these species is important. Because of the low probability of cedar regeneration within concentrated areas of deer use, harvest should be avoided. If harvest of cedar has been conducted within the yard, evaluating harvest techniques and regeneration will be critical to the success of future management.

5. Cedar management outside of deer yard boundaries with regeneration challenges

Where cedar is not regenerating outside of deer yards, clear criteria should be developed to judge adequate regeneration and appropriated actions to correct understocked areas (SFI Performance Measure 2.1). It must

be determined where and how much this lower stocking rate is acceptable. Because of the high economic and ecological value of cedar, the priority should be to evaluate regeneration of past harvest areas and to limit or clearly define sustainable harvest levels until status within these areas is determined. Monitoring results will take time (30 - 50 yrs) but will not jeopardize cedar communities as they are long-lived.

In stands where cedar is harvested, actions will be taken to protect desirable or planned advanced natural regeneration during harvest (SFI Performance Measure 2.1):

- 1) Leave cedar seed trees every 30 ft.
- 2) Avoid cutting leaning cedar ($\sim \leq 45^\circ$) - trees provide better opportunities for vegetative regeneration.
- 3) Avoid harvesting large trees ($> 12''$ dbh) - good seed dispersal.
- 4) Create slash piles and downed whole trees adjacent to retained cedar.
- 5) Avoid harvesting in low areas with hummock microtopography as equipment can flatten and result in site conversion to species that are more adapted to wet areas.
- 6) Clearcutting of cedar on shallow organic soils, poorly decomposed acid peats, or wet mineral soils frequently result in inadequate regeneration. Harvest should be restricted to the most productive organic soils.

Citation:

Chimner, R.A., and J.B. Hart 1996. Hydrology and microtopography effects on northern white-cedar regeneration in Michigan's Upper Peninsula. *Can. J. For. Res.* 26:389-393.

Lanasa, M. 1989. Northern white-cedar management and whitetail deer habitat. In: *Proceedings of the National Silvicultural Workshop: Silviculture for all resources; 1987 May 11-14; Sacramento, CA.* Washington, DC: U.S. Department of Agriculture, Forest Service, Timber Management: 19-24.

Verme, L.J., and W.F. Johnson. 1986. Regeneration of Northern white cedar deeryards in upper Michigan. *J. Wild. Manag.* 50:307-313.

6. Northern hardwood

Retention of large diameter living trees and snags will provide cavity, den, and foraging habitat and future dead and down woody debris for numerous wildlife species.

7. Hemlock

Hemlock communities provide habitat for rare raptor species such as red-shouldered hawk and Northern goshawk and is also important to black-throated blue, cerulean, black-throated green warblers, and scarlet tanagers, black bear, moose and marten.

Closed canopy structure results in lower snow levels and lower energy expenditures for deer. When harvesting other trees species within a stand where hemlock is retained, equipment should refrain from removing trees from hemlock inclusions to avoid damaging the canopy.

8. Poor conifer swamp

This natural community is dominated by black spruce, Labrador tea, and sphagnum mosses and is important to many rare plants and animals such as the yellow pitcher plant, black crowberry, spruce grouse, wood turtle, and merlin. When managing for biodiversity within poor conifer swamps, large unharvested tracts may be left to allow natural processes to operate unhindered to generate a range of successional stages. Examples of this community with late successional characteristics are relatively rare and should be considered for retention with the presence of large trees, treefall gaps, snags and downed wood.

Dead and dying wood will be retained to become snags, stumps, and fallen logs. Long rotation periods (over 100 years) will favor numerous species, such as epiphytic lichen and trunk foraging birds that depend on old, large trees.

Where management does occur, patches of residual trees, all snags, and dead and downed wood will be retained. High retention (> 20 %) will be important because spruce is not very windfirm, thus isolated retention patches blow over easily. Retention of both spruce and fir is important to maintain the multi-storied structure within the stand.

Citation:

Kost, M.A., D.A. Albert, J.G. Cohen, B.S. Slaughter, R.K. Schillo, C.R. Weber, and K.A. Chapman. 2007. Natural Communities of Michigan: Classification and Description. Michigan Natural Features Inventory, Report No. 2007-21, Lansing, MI.

MDNR FMFM Within-Stand Retention Guidelines. 2006. Cover type specific considerations – spruce-fir. Pgs. 25-26.

9. Aspen

Maintaining a component of interspersed large (saw log) living aspen or aspen patches within managed stands will provide for future snag age class and a food resource for ruffed grouse. This aspen multi-age class juxtaposition also provides benefits for deer and hare.

Oak and cherry retained within aspen stands serve as important mast producers.

Retention of longer-lived species such as maple, oak, cedar, and white pine enhance vertical structure and assure a steady supply of snags and downed woody debris.

Retention of conifer < 4” dbh within stands provides cover for ruffed grouse.

10. Red pine

Retention of some red pine at final harvest in plantation stands provide wildlife values in terms of super-canopy nesting trees, a good long-term cavity resource, and live/wood legacy tree retention. The benefit of these patches to wildlife will be maximized by placing retention of red pine adjacent to 100 ft, unharvested, water quality buffers.

The retention zone beyond the buffer can be managed to maximize ecological complexity and natural plant diversity with variable density thinning and longer rotations. Retention within this zone of 60 – 80 ft² per acre of residual red pine at the initial harvest will result in development of two-age cohort stands and potentially multi-cohort stands when this level of harvest is repeated in the future. Economic rotation ages of 50 – 90 years are shorter than those to develop complex stand structures (120 – 200 years). Thus the primary determinant of harvest within the retention zone will be the acceptable level of structural complexity and within-stand heterogeneity.

Because large continuous stands of red pine of the same age are susceptible to severe pest outbreaks, having zones of red pine of varying age classes broken up with alternate non-pine species will prove beneficial.

Management within red pine plantations will enhance and perpetuate oak components which are an important hard mast source for numerous wildlife species.

Citation:

Gilmore, D. W., and B. J. Palik. 2006. A revised manager’s handbook for red pine in the North Central

Region. Gen. Tech. Rep. NC-264. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 55 p.

MDNR FMFM Within-Stand Retention Guidelines. 2006. Cover type specific considerations – red pine. Pgs. 22-23.

Michigan State Forest Red Pine Management Guidelines. 1991.

Nicholls, T. H., and D. D. Skillings. 1997. Pocket guide to red pine diseases and their management. U.S. Department of Agriculture, Forest Service, North Central Research Station.

11. Limestone Boulders

These unique geologic features serve as micro-habitat for several rare plant species including Hart's tongue fern, green spleenwort, and walking fern. Harvesting too close to these boulders can interrupt the canopy cover and micro-climate for these plants. In areas where plants have been found, retention guidelines will be followed (pg. 15). In areas within the plant species distribution (see MNFI summaries) harvest will not occur at a minimum of 10 ft of large boulders (approximately $\geq 4 \times 4$ ft) to protect micro-climate and possible future colonization sites.

12. Retention considerations

- Retention patches placed within a stand for water quality, inoperability, or protection of sensitive habitat can contribute toward but not fully satisfy retention requirements (pg. 10).

- Important to vary retention patterns across the landscape to encourage structural diversity (pg. 11).
 - When retaining scattered trees, important to capture the size diversity by assuring that large diameter trees / trees with desirable wildlife characteristics are included.
 - For stands greater than 10 acres, patches are recommended. This also assures that a representation of the current species community is retained.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand & gravel and postglacial alluvium, coarse-textured till and peat and muck. The glacial drift thickness varies between 10 and 50 feet. The Silurian Engadine Group subgroups below the glacial drift. The Engadine is quarried for stone/dolomite in the UP. Gravel pits are located in the area and there should be potential on the uplands. There is no current economic oil and gas production in the UP.

Vehicle Access: The Ziegler Road passes roughly through the center of the compartment with part of the Springer Road passing through the west. These two roads and several small spurs provide good access into the compartment. No new permanent roads are planned for this compartment.

Survey Needs: Corners may be needed within sections 23, 24 and 26.

Recreational Facilities and Opportunities: Snowmobile and ORV riding are common within the compartment. Ziegler Lake Road is groomed in the winter for snowmobile use. The compartment is also used for hunting and mushroom picking.

Fire Protection: Most areas of the compartment are easily accessible with the current road system. Water sources are sufficient with Foreman Lake nearby.

Additional Compartment Information:

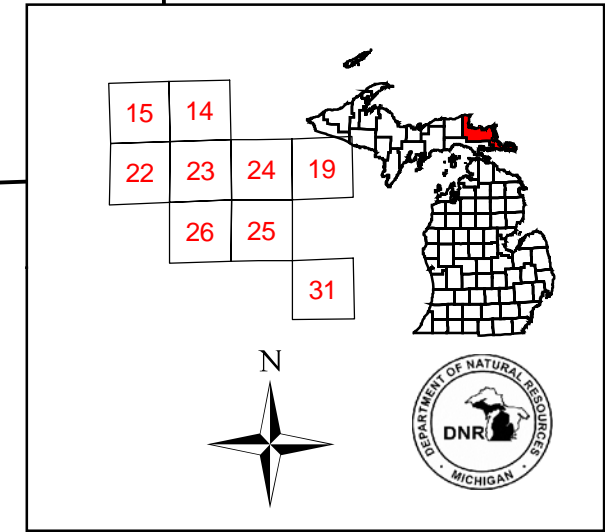
- **Cover Type details, Proposed Treatments, and Stand listings are listed in the attached reports:**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Listing – Forested**
 - ◆ **Stand Listing – Non Forested**
 - ◆ **Special Conservation Area (SCA) Details**

- **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**
 - ◆ **SCA – Special Conservation Areas**

Cover Type & Treatment Map

Compartment 022
 T42N, R02E, Sec. 14-15, 22-26
 T42N, R03E, Sec. 19, 31
 County: Chippewa
 Unit: Sault Ste. Marie
 YOE: 2010
 Acres: 3,197 GIS Calculated
 Stand Examiner: Jason Caron
 Map Revised: 8/14/2008
 Map Phase: Pre-review

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



Legend

- Miris Corners
- Paved Road
- Poor Dirt Road
- Closed Roads
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Trails
- Snowmobile Trails
- Motorcycle Trails
- Stands
- Thinning (Crown, Low, Systematic)
- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

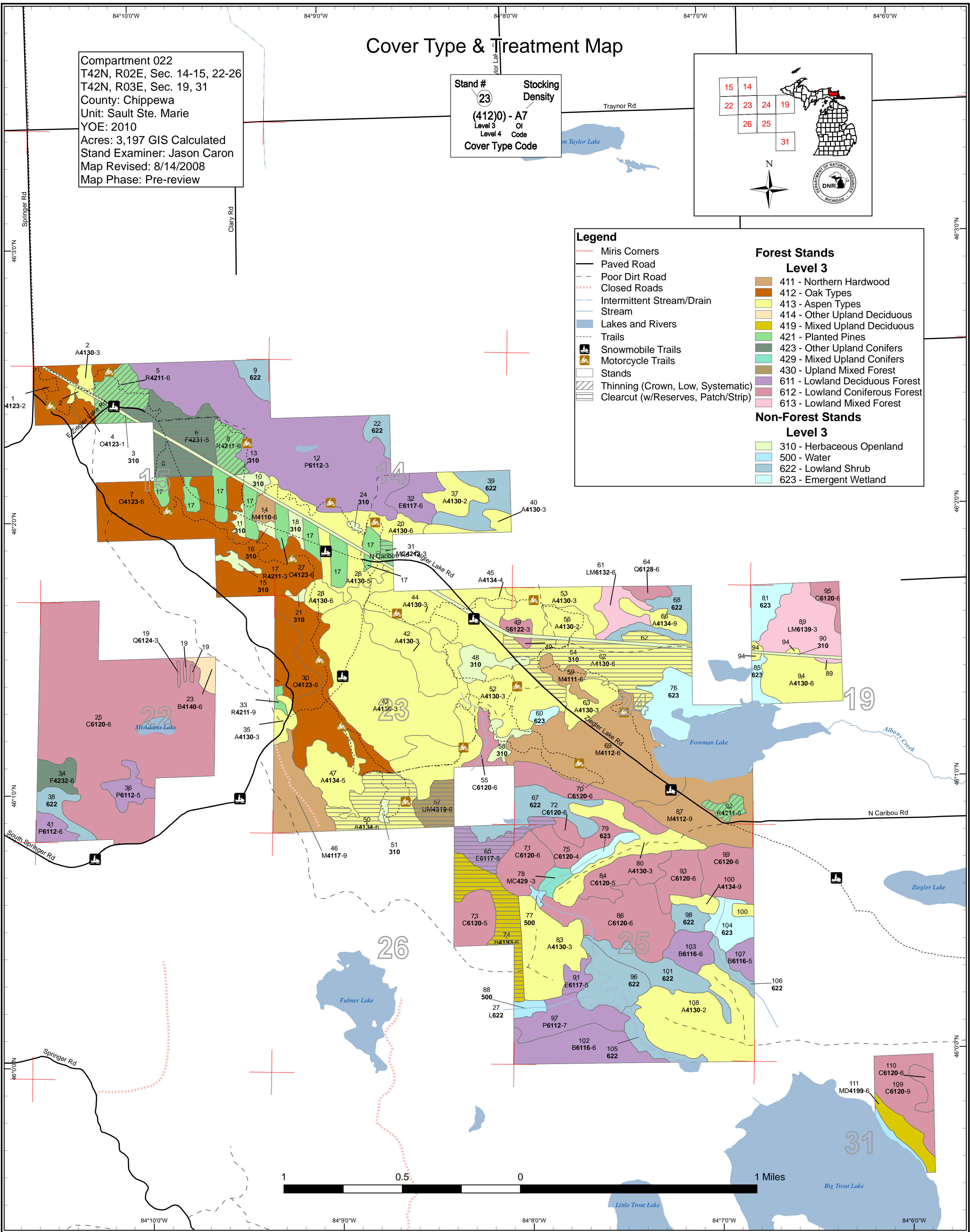
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 421 - Planted 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

Non-Forest Stands

Level 3

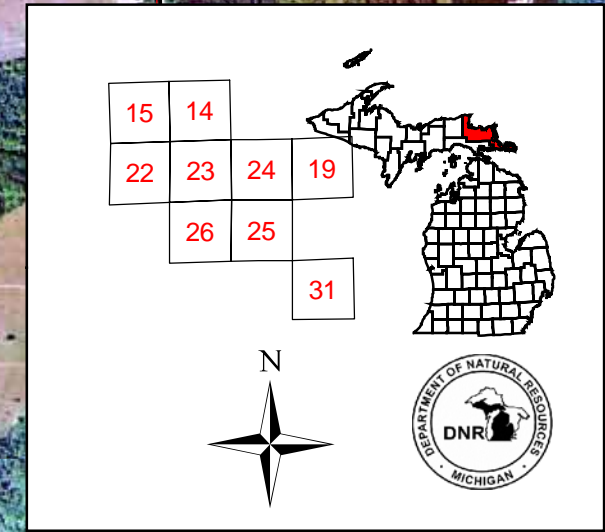
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



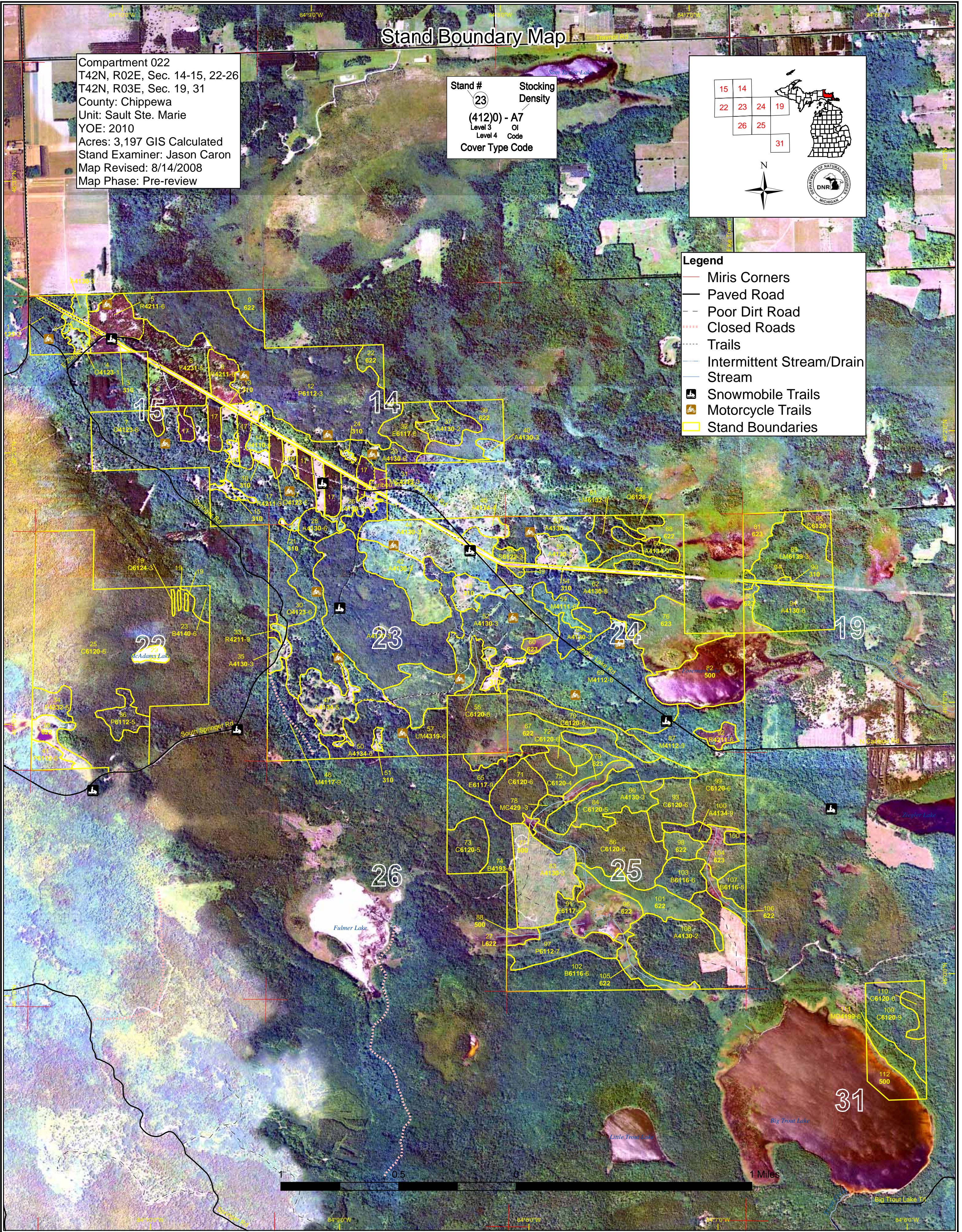
Stand Boundary Map

Compartment 022
 T42N, R02E, Sec. 14-15, 22-26
 T42N, R03E, Sec. 19, 31
 County: Chippewa
 Unit: Sault Ste. Marie
 YOE: 2010
 Acres: 3,197 GIS Calculated
 Stand Examiner: Jason Caron
 Map Revised: 8/14/2008
 Map Phase: Pre-review

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



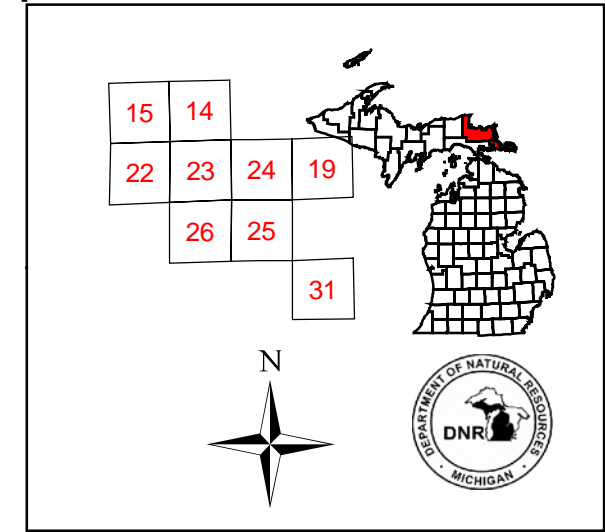
- Legend**
- Miris Corners
 - Paved Road
 - Poor Dirt Road
 - Closed Roads
 - Trails
 - Intermittent Stream/Drain
 - Stream
 - Snowmobile Trails
 - Motorcycle Trails
 - Stand Boundaries



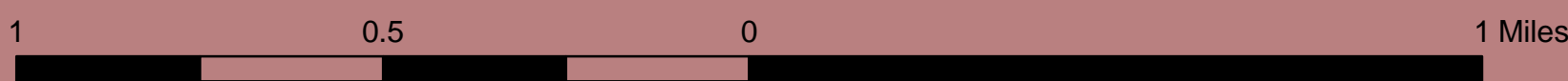
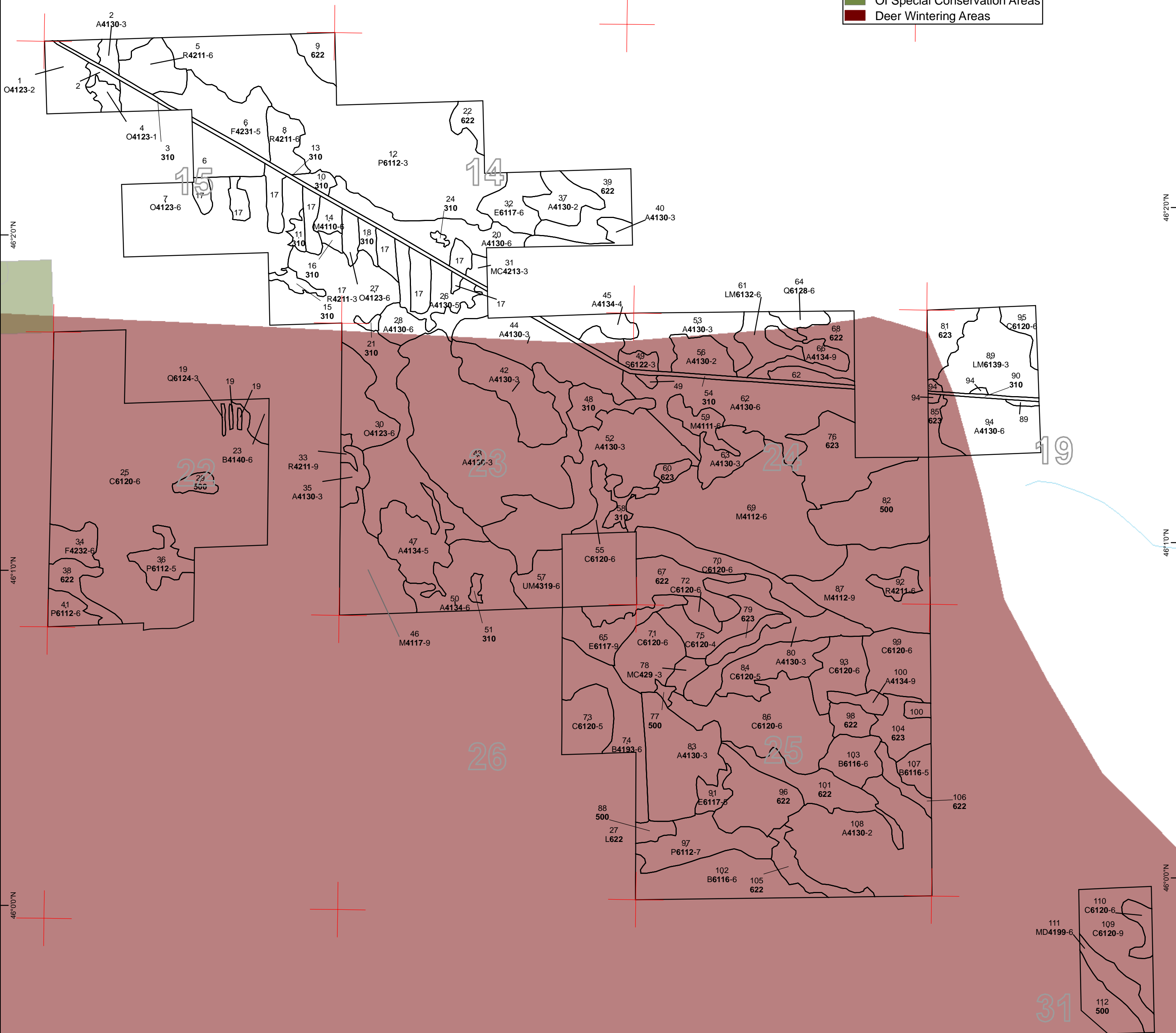
Dedicated & Proposed Special Conservation Area Map

Compartment 022
 T42N, R02E, Sec. 14-15, 22-26
 T42N, R03E, Sec. 19, 31
 County: Chippewa
 Unit: Sault Ste. Marie
 YOE: 2010
 Acres: 3,197 GIS Calculated
 Stand Examiner: Jason Caron
 Map Revised: 8/14/2008
 Map Phase: Pre-review

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



- Legend**
- Miris Corners
 - Stand Boundaries
 - Cold Water Streams
 - OI Special Conservation Areas
 - Deer Wintering Areas



84°10'0"W 84°9'0"W 84°8'0"W 84°7'0"W 84°6'0"W

46°3'0"N
46°2'0"N
46°1'0"N
46°0'0"N

46°3'0"N
46°2'0"N
46°1'0"N
46°0'0"N

Covertypes, Acres, and Age summary (Level 3 Cover Type)

Sault Ste. Marie Mgt. Unit

Compartment 022 Year of Entry 2010

Report Date: 08/14/2008



	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 Types	0	277.6	85.1	234.7	63.2	52.0	179.3	20.2	0	0	0	0	0	0	0	912.1
Emergent Wetland	93.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93.7
Herbaceous Openland	72.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72.0
Lowland Coniferous Forest	0	0	0	0	2.0	0	6.3	0	6.2	31.5	536.3	35.3	14.1	0	0	631.8
Lowland Deciduous Forest	0	0	0	197.8	19.9	0	17.7	55.5	73.2	13.8	0	0	0	0	0	377.9
Lowland Mixed Forest	0	0	0	0	47.0	0	0	0	0	0	16.7	0	0	0	0	63.8
Lowland Shrub	203.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203.5
Mixed Upland Conifers	0	0	0	6.3	0	0	0	0	0	0	0	0	0	0	0	6.3
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	37.2	14.9	0	0	0	0	52.1
Northern Hardwood	41.8	0	0	0	0	123.8	0	69.0	0	0	0	0	0	0	0	234.7
Oak Types	212.1	5.4	0	0	0	0	0	55.9	0	0	0	0	0	0	0	273.4
Other Upland Conifers	0	0	0	0	0	51.2	0	0	0	0	12.7	0	0	0	0	63.9
Other Upland Deciduous	0	0	0	0	0	0	0	0	7.0	0	0	0	0	0	0	7.0
Planted Pines	0	0	0	53.5	0	46.5	2.3	0	0	0	0	0	0	0	0	102.3
Upland Mixed Forest	0	0	0	0	0	0	17.1	0	0	0	0	0	0	0	0	17.1
Water	85.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85.4
Total	708.5	283.0	85.1	492.2	132.1	273.5	222.8	200.6	86.4	82.5	580.6	35.3	14.1	0	0	3196.8

**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
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5	45022005-Cut	25.0	42110 - Planted Red Pine	High Density Pole	46	Harvest	Crown Thinning	Planted Red Pine
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Rev Cmnt: Leave maple within the openings (Wildlife Comment).
Rev Spec: Thin red pine stand to 120 BA. Retain any hardwood species that may exist within the stand.
Next Steps:

6	45022006-Cut	51.2	42310 - Planted Spruce	Medium Density Pole	46	Harvest	Clearcut with Reserves	Other Mixed Upland Deciduous
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Rev Cmnt: Leave a 2 acre patch of spruce (Wildlife Comment).
Rev Spec: Leave oak, pine, and maple within the stand. Manipulate the stand boundary for retention purposes.
Next Steps: Perform a regen. survey in 4 years. Acceptable regen. species include aspen, maple, birch, spruce, and fir.

8	45022008-Cut	14.3	42110 - Planted Red Pine	High Density Pole	46	Harvest	Crown Thinning	Planted Red Pine
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Rev Cmnt: Retain any hardwood species that may exist within the stand.
Rev Spec: Thin red pine to 120 BA
Next Steps:

31	45022031-Cut	3.5	42130 - Planted Scotch Pine	High Density Sapling	26	Harvest	Clearcut	Other Mixed Upland Deciduous
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Rev Cmnt: Stand contains a young stand of scotch pine. Removal practice is up for discussion.
Rev Spec: Remove all planted scotch pine from plantation, whole tree removal. Allow stand to regenerate naturally.
Next Steps: Perform a regen. survey in 4 years. Acceptable regen. includes aspen, birch, fir, spruce, maple, cedar.

50	45022050-Cut	40.5	4134 - Aspen, Spruce/Fir	High Density Pole	53	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir
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Rev Cmnt: Reserve spruce and balsam over 12" and mature aspen (Wildlife Comment).
Rev Spec: Clearcut with reserves. Modify the stand line boundary for retention purposes. Also reserve our typical species of pine, oak, hemlock, yellow birch and cedar.
Next Steps: Perform a regen. survey in 4 years. Acceptable regen. includes aspen, birch, fir, spruce, maple.

57	45022057-Cut	17.1	4319 - Mixed Upland Forest	High Density Pole	56	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir
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Rev Cmnt: Leave large dbh fir >12" and mature aspen (Wildlife Comment).
Rev Spec: Clearcut with reserves. Modify stand line boundary for retention purposes. Also reserve our normal species: Oak, Hemlock, Pine, Yellow Birch, Cedar
Next Steps: Perform a regen. survey in 4 years. Acceptable regen. species include aspen, maple, birch, spruce, and fir

**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
62 45022062-Cut	79.3	4130 - Aspen	High Density Pole	58	Harvest	Clearcut with Reserves	Aspen

Rev Retain a patch of mature aspen (Wildlife Comment).
Cmnt:

Rev Clearcut with reserves. Modify the stand line boundaries for retention purposes. Also, retain our normal species of Oak, Hemlock, Pine, Yellow Birch, and Cedar.
Spec:

Next Perform and regen. survey in 4 years. Acceptable regen. species include aspen, maple, birch, spruce, and fir.
Steps:

65 45022065-Cut	23.1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	60	Harvest	Clearcut with Reserves	Lowland Aspen
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Rev Stay out of cedar inclusions. Leave some large dbh spruce and birch along wet areas (Wildlife Comment)
Cmnt:

Rev Clearcut with reserves. Modify the stand line boundaries for retention purposes. Also reserve the normal species of Pine, Oak, Hemlock, Yellow Birch and Cedar.
Spec:

Next Perform a regen. survey in 4 years. Acceptable regen. species include aspen, maple, birch, spruce, fir, and cedar.
Steps:

74 45022074-Cut	37.2	4193 - Birch, Aspen	High Density Pole	83	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir
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Rev Retain large dbh spruce (Wildlife Comment)
Cmnt:

Rev Clearcut with reserves. Manipulate the stand boundary for retention purposes. Also reserve Oak, Hemlock, Pine, Yellow Birch, and Cedar.
Spec:

Next Perform a regen. survey in 4 years. Acceptable regen. species include aspen, maple, birch, spruce, and fir.
Steps:

92 45022092-Cut	7.1	42110 - Planted Red Pine	High Density Pole	46	Harvest	Crown Thinning	Planted Red Pine
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Rev Retain any hardwood species that may exist within the sale.
Cmnt:

Rev Thin red pine to 120 BA.
Spec:

Next
Steps:

**Total Treatment
Acreage Proposed: 298.3**

**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
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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
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.