



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 217

Entry Year 2015

Acreage: 2,542

County Mackinac

Management Area: Great Lakes Islands - NLP

Revision Date: 04/26/2013

Stand Examiner: Tricia Mitchell

Legal Description:

T39N R01W, Sec 5-8, except a small portion within section 5 (broken out as "lot 10")
T40N R01W, Sec 5

Identified Planning Goals:

Much of compartment 217 is within a nationally dedicated Natural Area, limiting intrusive use and development. Bois Blanc island is generally managed for its ecological values rather than timber product. These Natural Areas are also valuable for their research potential.

Soil and topography:

The topography is generally flat with minimal undulations. There are steep slopes along the coast down onto the beach, some drops of 10' or more. The soil types are variable, but are primarily comprised of sandy, gravelly, and cobbly loam, with a small occurrence of Zela muck near Deer Lake.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

Boblo is unique in its survey, as the sections are a french survey, divided into lots. The majority of the compartment is adjacent to state land, however section 8 has a strip of private land separating one lot from the rest of the compartment. There is also a strip of private land (and lighthouse) on the northern peninsula in section 5.

Unique Natural Features:

High-quality mesic northern forest* and boreal forest* occur within the compartment on Lime Kiln Point. Potential for additional high-quality boreal forest to southeast of Lime Kiln Point on private land. Bald eagle* nest associated with Deer Lake. Eastern massasauga* recorded throughout the compartment and throughout Bois Blanc Island. Red-shouldered hawk* recorded nesting in compartment. Loon and osprey recorded throughout island. Potential for above species throughout compartment. Calypso orchid and beauty sedge documented throughout island and in compartment. Douglass hawthorn recorded on island. Climbing fumitory (*Adlumia fungosa*) in eastern portion of compartment. Dwarf lake iris in western portion of compartment in near shore areas. Potential for above species within compartment. Many MNFI data have been collected on Boblo Island, identifying plant and animal species of concern. Such occurrences include: Douglas's Hawthorn, Calypso of Fairy-slipper, Red-Shouldered Hawk, Dwarf Lake Iris, Climbing Fumitory, Bald Eagle, eastern Massasauga, and Limestone Oak Ferns.

Archeological, Historical, and Cultural Features:

There are known concerns in the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

The majority of compartment 217 is designated natural area, with other stands designated as protected conifer swamps. These natural areas are protected under Part 351 of NREPA, 'Wilderness and Natural Areas'.

Watershed and Fisheries Considerations:

This compartment is on the northern portion of Bois Blanc Island. Deer Lake and part of Evans Lake are within this compartment, as well as Lake Huron shoreline. None of the proposed management actions are close to these waterbodies, so Fisheries has no concerns at this time.

Wildlife Habitat Considerations:

This compartment lies on Bois Blanc Island and consists of a mixture of lowland areas and upland hardwoods. This compartment supports a variety of wildlife.

Mineral Resource and Development Concerns and/or Restrictions

Tracts 5 - 8, T39N-R1W, Mackinac County

Surface sediments consist of lacustrine (lake) sand and gravel, some of it is thin to discontinuous over the bedrock. There is insufficient data to determine the glacial drift thickness. The Devonian Bois Blanc Formation subcrops below the glacial

drift. The Bois Blanc could be used for stone. A gravel pit is located just to the south and the compartment may have some potential. There is no known oil and gas potential on Bois Blanc Island

Vehicle Access:

Road conditions are poor and more conducive to ATV usage rather than truck. Vehicular access is restricted from the east, with primary access from the south and west. Bob Lo Drive is impassable north of Deer Lake. Central Drive is the most viable access.

Survey Needs:

There exist no pressing survey needs.

Recreational Facilities and Opportunities:

Most existing roads and trails are suitable for ATV traffic. The shorelines have been misused as travel routes. The former lighthouse on the point is a tourist destination.

Fire Protection:

Fire equipment would have a difficult time navigating the roads north of Deer Lake, but otherwise the compartment is relatively accessible by roads and not limited by terrain.

Additional Compartment Information:

The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class
- Cover Type by Harvest Method
- Proposed Treatments – No Limiting Factors
- Proposed Treatments – With Limiting Factors
- Stand Details (Forested and Nonforested)
- Dedicated and Proposed Special Conservation Areas
- Site Condition Details

The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers
- Proposed treatments
- Site condition boundaries
- Details on the road access system

Cover Type & Treatment Map

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

Compartment: 217
 Bois Blanc Island, T39N R01W
 Government Lots 5-8
 County: Mackinac
 Unit: Gaylord
 YOE: 2015
 Acres: 2,542 GIS Calculated
 Examiner: Tricia Mitchell
 Map Revised: 04/08/2014
 Map Phase: Post-Review

Legend

- ◆ PLSS Corner
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Other Treatment - See Comments
- Treatments w/ Site Condition

Forest Stands

Level 3

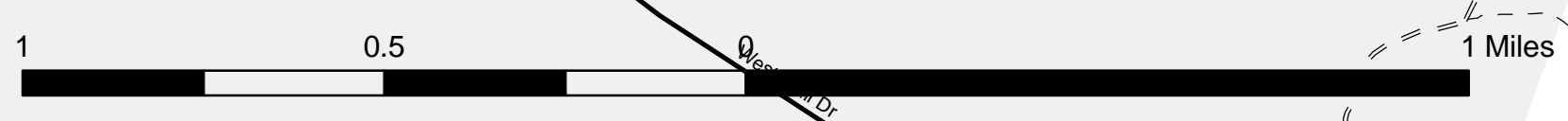
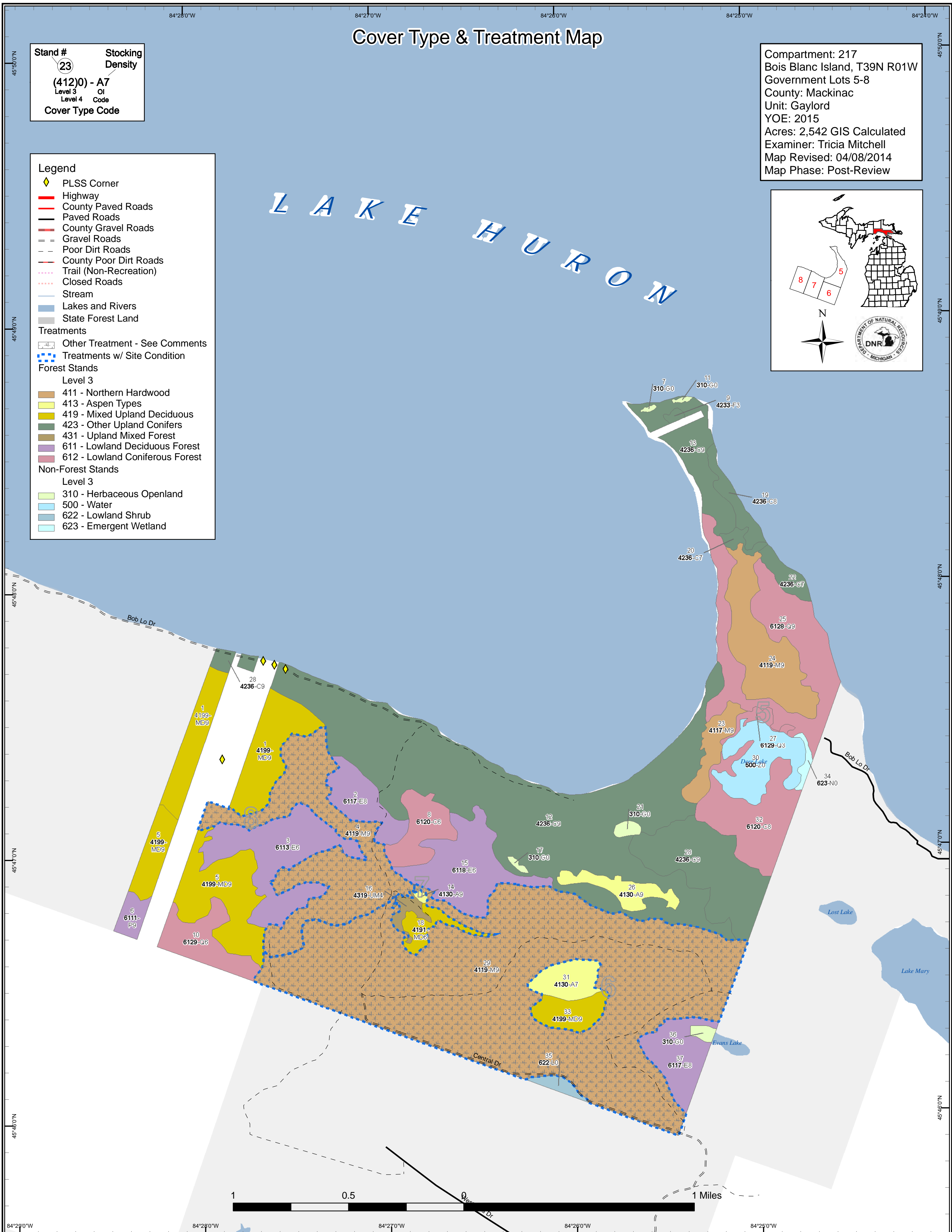
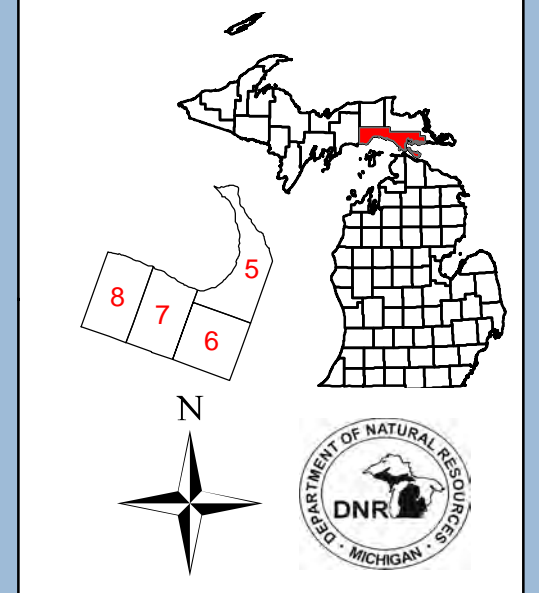
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

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

LAKE HURON



Stand Boundary Map

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

Compartment: 217
 Bois Blanc Island, T39N R01W
 Government Lots 5-8
 County: Mackinac
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Legend

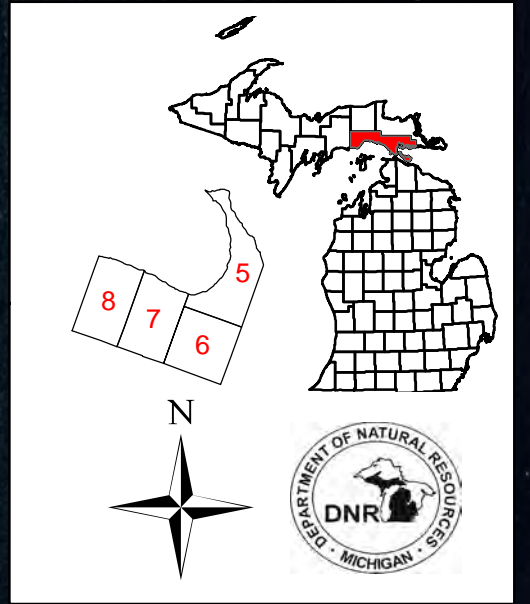
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- Paved Roads
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- Stand Boundaries

Forest Stands

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Special Conservation Areas & Site Conditions Map

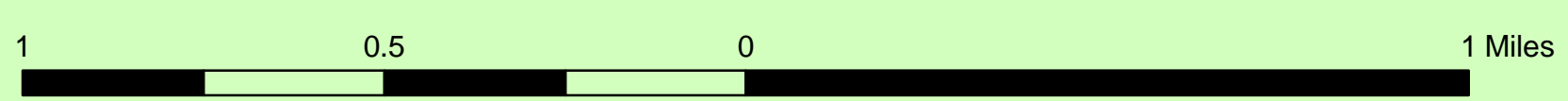
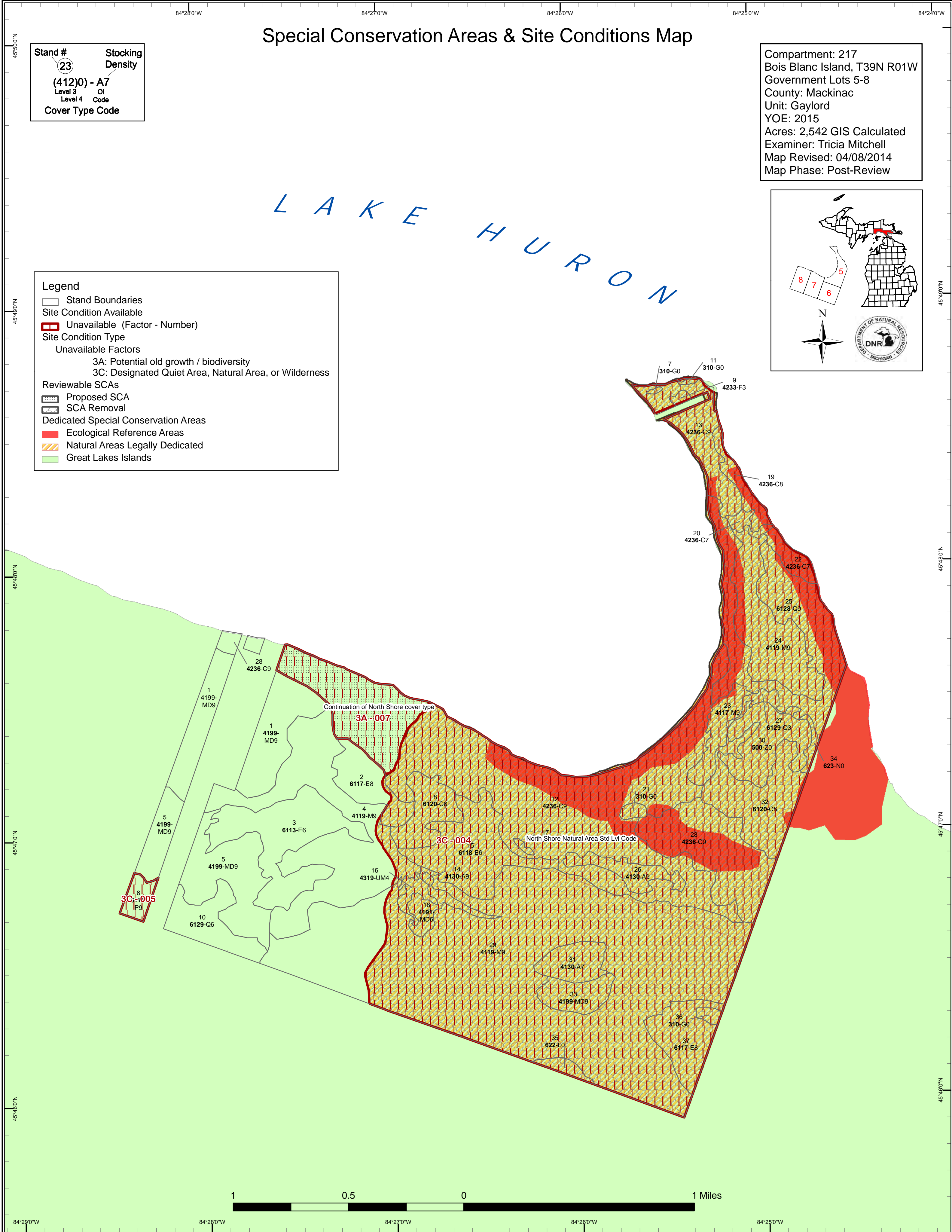
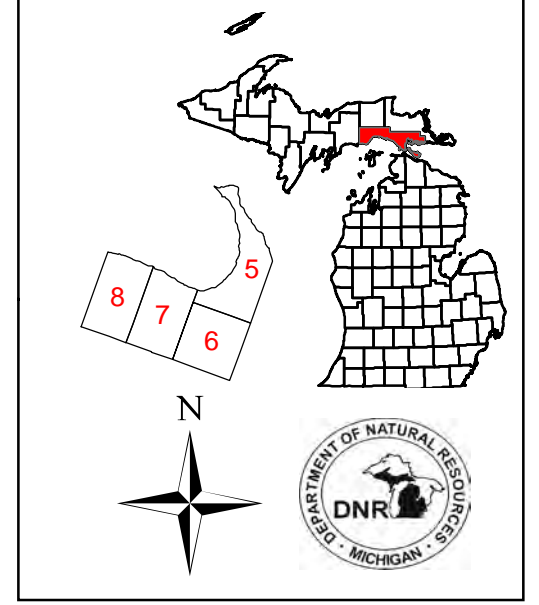
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Map Revised: 04/08/2014
Map Phase: Post-Review

L A K E H U R O N

Legend

- Stand Boundaries
- Site Condition Available
- Unavailable (Factor - Number)
- Site Condition Type
- Unavailable Factors
 - 3A: Potential old growth / biodiversity
 - 3C: Designated Quiet Area, Natural Area, or Wilderness
- Reviewable SCAs
 - Proposed SCA
 - SCA Removal
- Dedicated Special Conservation Areas
 - Ecological Reference Areas
 - Natural Areas Legally Dedicated
 - Great Lakes Islands



84°29'0"W 84°28'0"W 84°27'0"W 84°26'0"W 84°25'0"W

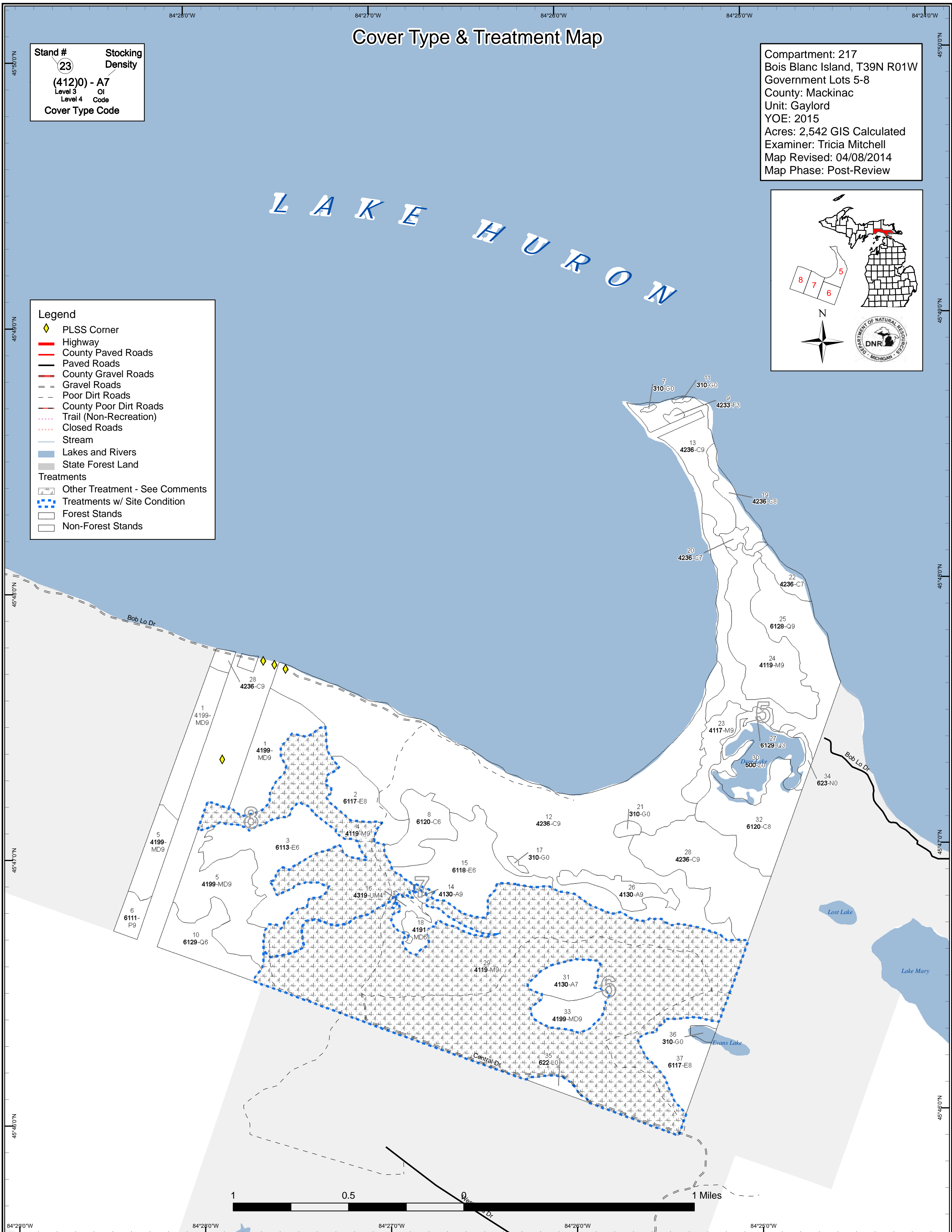
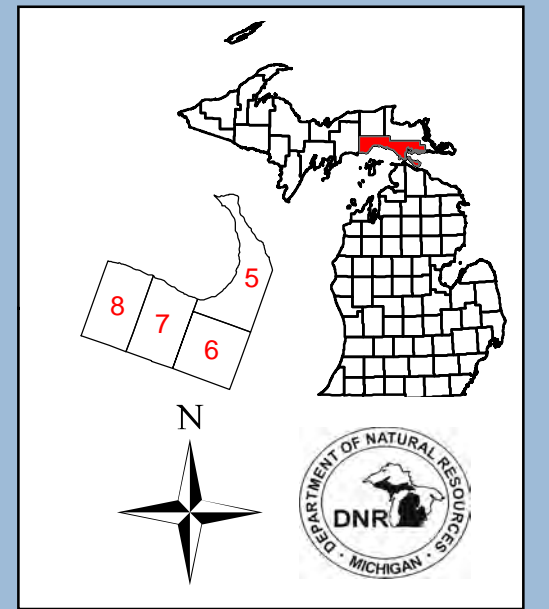
Cover Type & Treatment Map

Stand #
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LAKE HURON

- Legend**
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 - State Forest Land
- Treatments**
- Other Treatment - See Comments
 - Treatments w/ Site Condition
 - Forest Stands
 - Non-Forest Stands



Report 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	0-9	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	27	23	1	0	0	0	0	0	0	51
Cedar	0	0	0	0	0	0	36	52	0	438	0	105	93	20	745
Herbaceous Openland	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Aspen/Balsam Poplar	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12
Lowland Conifers	0	0	8	0	0	0	0	42	0	122	0	0	0	0	171
Lowland Deciduous	0	0	0	0	0	0	95	0	0	0	0	0	0	164	259
Lowland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Marsh	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	0	0	0	118	0	97	0	0	0	0	0	25	240
Northern Hardwood	0	0	0	0	0	0	0	170	807	0	0	0	0	0	977
Upland Mixed Forest	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Upland Spruce/Fir	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Water	52	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Total	75	0	10	8	0	156	154	362	807	560	0	105	93	210	2542



Report 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2015

Compartment 217
Total Compartment Acres: 2,542

Acres by Treatment Type

Commercial Harvest - 0	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
	#Error	#####	#Error	#####	#Error	#####	
Total	0	0	0	0	0	0	0



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Type! #Type!

Prescription
Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: #Type!

**Total Treatment
Acreage Proposed: 0.0**

S
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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4 52217004-Monitor	169.5	4119 - Mixed Northern Hardwoods	High Density Log	79	111-140	Monitoring	See Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete

Prescription No treatment proposed except monitoring of species composition in wake of severe BBD devastation.

Specs:

Other Comment: Excellent candidate for regeneration monitoring in areas with BBD, beech snap, and beech brush.

Next Steps: Contact MSU or other agency to propose fixed plots for monitoring regeneration, mortality, BBD, and stand dynamics.

Proposed

Start Date: 10/01/2013

Limiting Factor 3C: Designated Quiet Area, Natural Area, or Wilderness

29 52217029-Monitor	700.7	4119 - Mixed Northern Hardwoods	High Density Log	88	81-110	Monitoring	See Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
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Prescription No treatment proposed except monitoring of species in wake of severe BBD devastation.

Specs:

Other Comment: Excellent candidate for monitoring regeneration in areas with BBD, beech snap, and heavy beech brush.

Next Steps: Contact MSU or other agency to propose fixed plots for monitoring regeneration, mortality, BBD, and stand dynamics.

Proposed

Start Date: 10/01/2013

Limiting Factor 3C: Designated Quiet Area, Natural Area, or Wilderness

**Total Treatment
Acreage Proposed: 870.3**

Report 5 – Site Conditions

Gaylord Mgt. Unit
Tricia Mitchell : Examiner

Compartment 217
Year of Entry 2015

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	3C	3A
	Available	Not Available				
51		51	Aspen		51	
745	11	735	Cedar	11	642	92
12		12	Lowland Aspen/Balsam Poplar		12	
171	42	129	Lowland Conifers	42	129	
259	124	135	Lowland Deciduous	124	135	
240	198	42	Mixed Upland Deciduous	198	42	
977	253	723	Northern Hardwood	253	723	
8		8	Upland Mixed Forest		8	
2	0	2	Upland Spruce/Fir	0	2	
2,466	629	1,838	Total Forested Acres	629	1,746	92
	25%	75%	Relative Percent			

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
004	Not Available	3C: Designated Quiet Area, Natural Area, or Wilderness	1,809				
Comments: North Shore Natural Area, also Lime Kiln Point Boreal Forest.							
005	Not Available	3C: Designated Quiet Area, Natural Area, or Wilderness	12				
Comments: Identified as Central Cedar Swamp SCA.							
007	Not Available	3A: Potential old growth / biodiversity	92				
Comments:							



Report 6 – 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Continuation of North Shore cover type Comments	Habitat Areas or Corridors	Habitat Corridor	SCA	92.2
North Shore Natural Area Std Lvl Code Comments	Other SCA		SCA Removal	1825.7
Removing stand level coding. Already part of designated natural area.				



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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

Conservation Area	Type	Description
SCA	Great Lakes Islands	Great Lakes Islands provide significant habitat for numerous species, including many rare plants and animals, several of which are endemic or largely restricted to the Great Lakes region. Due to their isolation, islands provide good examples of many Great Lakes-associated natural communities and ecosystems, and thus have potential to provide insights for understanding the consequences of human disturbance on the increasingly fragmented ecosystems of the mainland.
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4199 - Other Mixed Upland Deciduous	High Density Log	97.3	71	81-110	Red Oak dominate in the interior of the stand.
2	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	38.5	Uneven Age		
3	6113 - Lowland Maple	High Density Pole	94.9	65	51-80	Seasonally wet.
4	4119 - Mixed Northern Hardwoods	High Density Log	169.5	79	111-140	Slash is primarily beech snap related and is not homogeneous across the stand. Beautiful oak in NE not well represented by QD collection. Beech scale present, even on saplings as small as 1/2" diameter. Consider breaking up stand into smaller stands. LOOK AT QD. Occasional YB as well.
5	4199 - Other Mixed Upland Deciduous	High Density Log	100.9	59		Birch and Red Maple dominated, Quaking Aspen is more common to the north. Cedar in the understory is low and running.
6	6111 - Lowland Balsam Poplar	High Density Log	12.4	56	51-80	
8	6120 - Lowland Cedar	High Density Pole	36.2	66	200+	Browse on BAM. Pockets of blowdown.
9	42330 - Upland Fir	High Density Sapling	2.3	25		Dense balsam fir (sap) with BAM and cedar overstory (supercanopy?).
10	6129 - Mixed Coniferous Lowland Forest	High Density Pole	41.9	75	141-170	
12	42360 - Upland Cedar	High Density Log	438.3	95	141-170	
13	42360 - Upland Cedar	High Density Log	51.9	76		
14	4130 - Aspen	High Density Log	1.4	71	200+	Hillside, adjacent to a low swamp to the east.
15	6118 - Lowland Deciduous with Cedar	High Density Pole	80.1	Uneven Age	141-170	Supercanopy aspen. Stand becomes lower and wetter as you progress north. More black spruce, less quaking aspen, and smaller cedar in the north.
16	4319 - Mixed Upland Forest	Low Density Pole	8.5	31	1-50	Open and unique island, upland grasses. Larger white spruce and more densely stocked southwest portion of stand. Campsite on the southeast leg. Stand could be considered multi-storied.
18	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	16.6	51	51-80	
19	42360 - Upland Cedar	Medium Density Log	16.9	136	171-200	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	42360 - Upland Cedar	Low Density Log	6.5	Uneven Age	51-80	Old cedar blow-down. Toadflax.
22	42360 - Upland Cedar	Low Density Log	13.8	Uneven Age	81-110	Small pocket (<2%) BAM. Pockets of blowdown. Sub-canopy is fairly dense/homogeneous throughout stand. Balsam Fir is of all size classes, sap/pole being most prominent.
23	4117 - Mixed N. Hardwood - Pine	High Density Log	24.7	83	81-110	White pine concentrated near lake shore and NE corner of stand.
24	4119 - Mixed Northern Hardwoods	High Density Log	81.9	81	81-110	Ferns and sphagnum in the understory; medium fern coverage. low sphagnum.
25	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	122.0	97	171-200	Lower area along the stand to the southwest (pre-inventory stand #12); eastern edge slopes down onto the beach. Stand is densely stocked with lots of nice logs, especially cedar.
26	4130 - Aspen	High Density Log	23.0	65	111-140	BA Swings: 90, 140, 150, 140 = 130 ave. Aspen quickly converting to Maple association. Occasional white ash on edges (Pole/Log/Sap); few Hemlock (Log). Heavier Paper Birch/Sugar Maple (White ash/hemlock, too) in west end.
27	6129 - Mixed Coniferous Lowland Forest	High Density Sapling	7.6	21		Super Canopy of a few scattered white pine (XL), white cedar (L), black spruce (L). This stand is regenerating.
28	42360 - Upland Cedar	High Density Log	105.5	116	200+	Pockets of supercanopy white pine and hemlock.
29	4119 - Mixed Northern Hardwoods	High Density Log	700.7	88	81-110	Dense beech brush. Beech Bark Disease advanced. Some snap has occurred in the beech.
31	4130 - Aspen	Low Density Log	26.5	56	51-80	Roughly 50% canopy cover in overstory. Understory is stocked with saplings; heavy browsing. Few balsam fir (<2%) present in overstory.
32	6120 - Lowland Cedar	Medium Density Log	76.3	181		4-6" of organic matter on top of water; totally saturated stand. Paper birch on edges only.
33	4199 - Other Mixed Upland Deciduous	High Density Log	25.3	Uneven Age	81-110	
37	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	45.5	Uneven Age	111-140	Dense cedar understory with quaking aspen overstory. Thickets of balsam fir regeneration; an interior pocket of hemlock.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
7	3102 - Grass	0.8	No	Unspecified	
11	3102 - Grass	1.0	No	Unspecified	
17	3102 - Grass	1.6	No	Unspecified	
21	3102 - Grass	4.2	No	Unspecified	Very wet. Considered an emergent wetland?
30	50 - Water	51.9	Unspecified	Unspecified	
34	623 - Emergent Wetland	4.6	Unspecified	Unspecified	
35	6220 - Alder/willow	7.1	No	Unspecified	
36	3102 - Grass	3.9	No	Unspecified	Identified as "Evan's Lake". Emergent wetlands with sedges, cattails, and grasses. Wet.