



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 68

Entry Year 2016

Acreage: 2,281

County Chippewa

Management Area: Whitefish Vermillion Point

Revision Date: 07/24/2014

Stand Examiner: Amy Douglass

Legal Description:

T50N, R06W, Sections 33-34; T49N, R06W, Sections 3, 4, 9, 10, 15, 16, 21 & 22

Identified Planning Goals:

Maintain the health of jack pine and aspen stands by proper management. Try to enhance longer lived species, and leave strategic retention when harvesting, near the ski trail.

Soil and topography:

High rolling terrain is comprised of Deer Park fine sand, with a small inclusion of Rousseau fine sand. Transitional ridges and swales on the north end are Wainola-Kinross-Rousseau complex, Kinross-Dawson complex, Kinross-Au Gres complex and Croswell sand. The very poorly drained low ground is Markey-Kinross-Au Gres complex, and Markey and Carbondale mucks. An old beach ridge/escarpment bisects the compartment between high dry soils and low wet soils.

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

State land abuts to the west and south. An isolated private 40 lies within the compartment and private lands are adjacent to the north and east, both large acreage and small tracts. The town of Paradise is located near the southeast corner.

Unique Natural Features:

A poor fen has been identified within the compartment. Osprey are known to nest here.

Archeological, Historical, and Cultural Features:

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

Special Management Designations or Considerations:

Poor fen area is now to be a new ERA. This area was purchased by state game funds. M-123 is a designated Scenic Heritage Route. Paradise ski trail loops through potential treatments.

Watershed and Fisheries Considerations:

Fisheries Values: Moderate

Fisheries Concerns: The Betsy River (Shelldrake River) skirts the northern edge of the compartment and is not a designated trout stream in this section. This section of river does however receive a small run of steelhead (rainbow trout) in the spring. Any treatments in stands bordering the river need to adhere to a minimum buffer of 100 feet. No treatments for 2016 are prescribed near the river, so Fisheries has no concerns at this time.

Wildlife Habitat Considerations:

Compartment 68 lies in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment lies within the Whitefish Vermillion Point Management Area and moose, piping plover, red crossbill and spruce grouse are featured species in the compartment. This compartment has large jack pine and oak components on the western edge with good overall diversity of cover types in the compartment consisting of stands of swamp conifer, birch, aspen, and lowland and marsh complexes in the southern and northern areas. Current vegetation patterns are similar to what was expected during pre-settlement times.

In pine forested ecosystem, maintaining a variety of age and size classes and maintaining as much structural diversity as possible in managed stands will be important to achieving wildlife objectives. Retaining soft and hard mast producing species and red and white pine in jack pine final harvests will provide food sources, nest and den trees, and improve stand diversity. Wildlife species potentially using this compartment include white-tailed deer, snowshoe hare, spruce grouse, ruffed grouse, black bear, gray wolves, and moose.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was used as a building

stone in the past. Gravel pits are not located in the area and potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access:

Access is good for the upland stands, with M-123 bordering to the south, Old Paradise Road crosses in the southern portion. Station North Road borders the western edge and dead-ends at Betsy River.

Survey Needs:

The center of section 15 may be needed.

Recreational Facilities and Opportunities:

Snowmobile Trail #8 crosses the southern part of the compartment. Snowmobile Trail #45 follows along the south side of M-123. Paradise pathway cross-country ski trail usually grooms one loop north of M-123. Another longer loop has been abandoned. A joint snowmobile trail and cross-country ski trail parking lot is located just south of the compartment, on the south side of M-123.

Fire Protection:

Compartment is in the Whitefish Zone Dispatch Area. Response time and Jack Pine cover type lends itself for potentially large fires. Access is good in southwest portion because of the drier sandy ground. The northeast portion will have access challenges because of escarpment and soft ground. Risk to private property could be high.

Additional Compartment Information:

Jack pine budworm has made its way through the compartment, with several salvage sales conducted 10 years ago. There are a couple jack pine stands that are overmature that need to be treated to help avoid additional outbreaks. Several treatments are recommended along the ski trail. These stands are overmature and need treatment before they are lost. Efforts will be made to leave longer lived species along the trail, and place retention strategically for visual and weather (drifting snow) aspects of the ski trail. M-123 is a designated Scenic Heritage Route.

The following reports from the Inventory are attached:

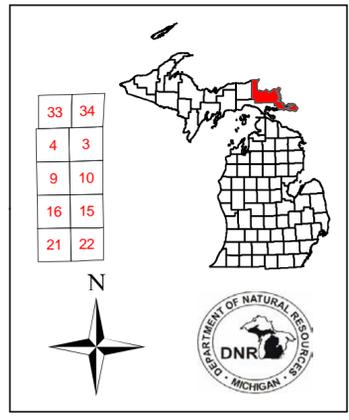
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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**

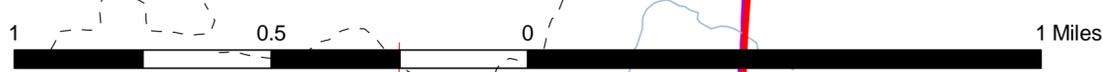
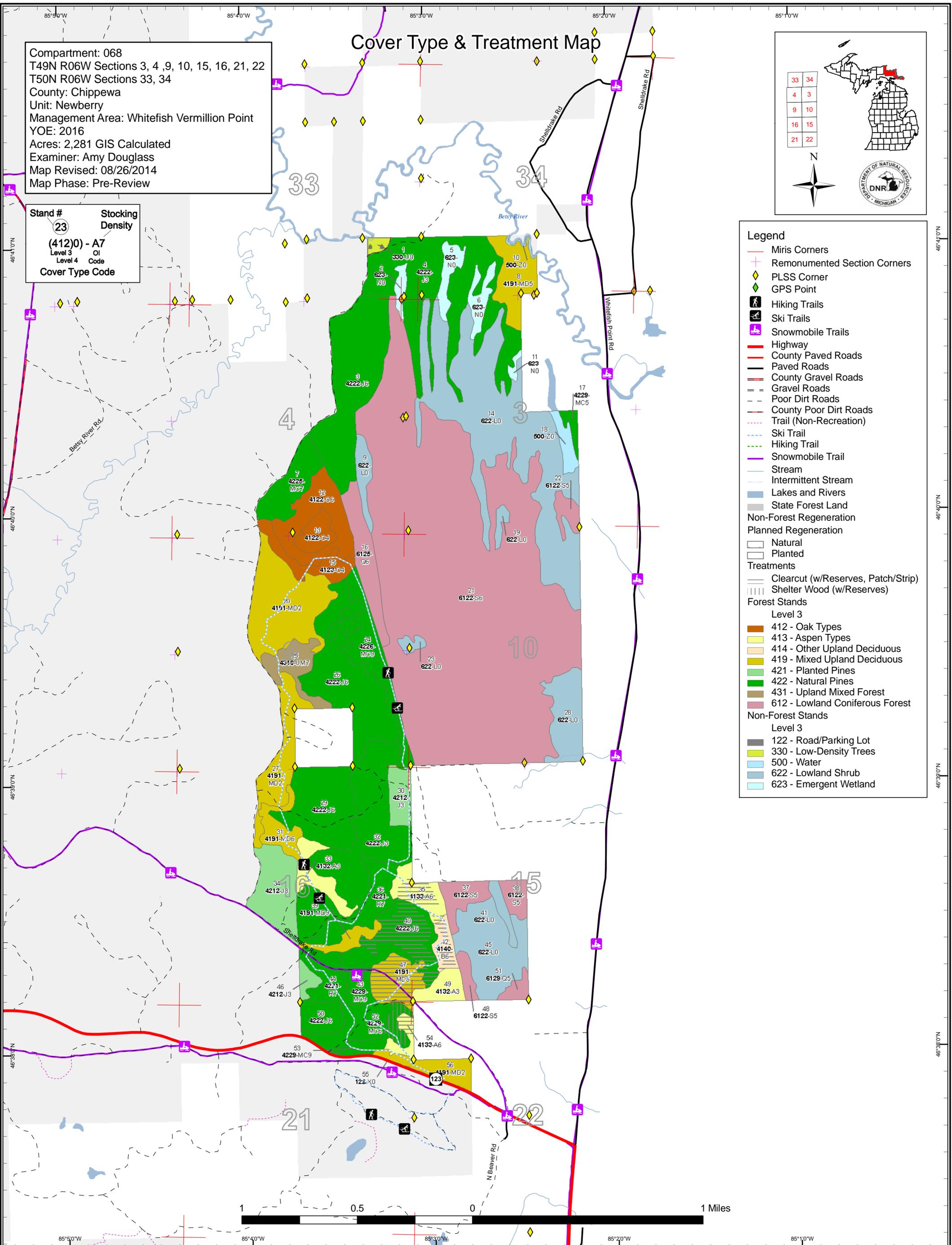
Cover Type & Treatment Map

Compartment: 068
 T49N R06W Sections 3, 4, 9, 10, 15, 16, 21, 22
 T50N R06W Sections 33, 34
 County: Chippewa
 Unit: Newberry
 Management Area: Whitefish Vermillion Point
 YOE: 2016
 Acres: 2,281 GIS Calculated
 Examiner: Amy Douglass
 Map Revised: 08/26/2014
 Map Phase: Pre-Review



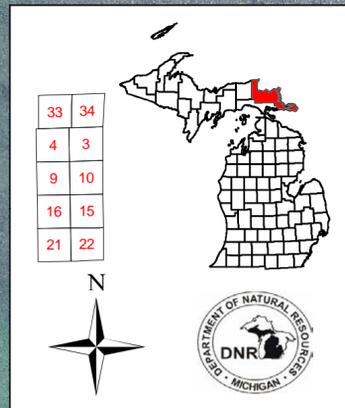
Stand #
 (23)
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

- Legend**
- Miris Corners
 - Remonumented Section Corners
 - PLSS Corner
 - GPS Point
 - Hiking Trails
 - Ski Trails
 - Snowmobile Trails
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Ski Trail
 - Hiking Trail
 - Snowmobile Trail
 - Stream
 - Intermittent Stream
 - Lakes and Rivers
 - State Forest Land
 - Non-Forest Regeneration
 - Planned Regeneration
 - Natural
 - Planted
 - Treatments
 - Clearcut (w/Reserves, Patch/Strip)
 - Shelter Wood (w/Reserves)
 - Forest Stands
 - Level 3
 - 412 - Oak Types
 - 413 - Aspen Types
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 431 - Upland Mixed Forest
 - 612 - Lowland Coniferous Forest
 - Non-Forest Stands
 - Level 3
 - 122 - Road/Parking Lot
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



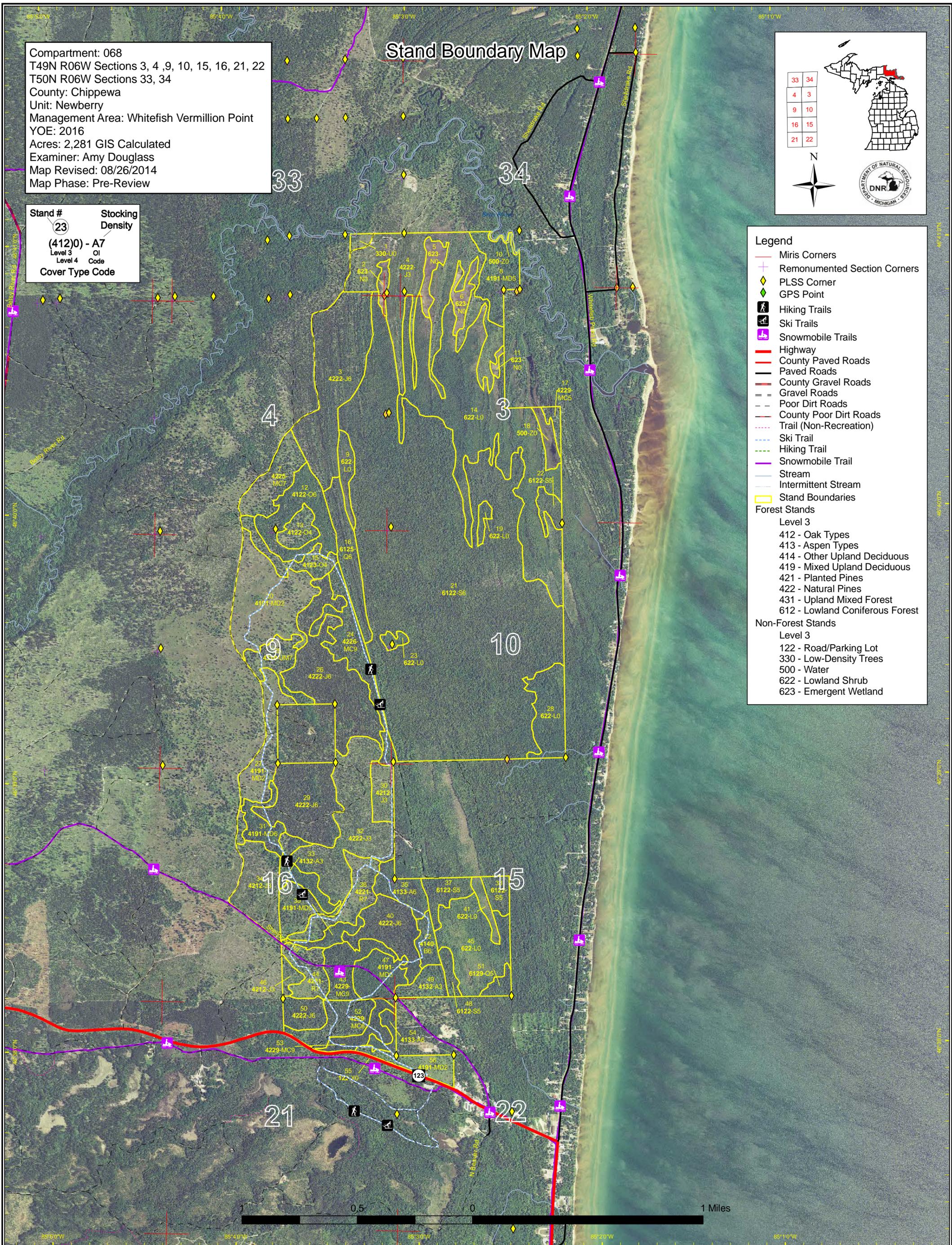
Stand Boundary Map

Compartment: 068
 T49N R06W Sections 3, 4, 9, 10, 15, 16, 21, 22
 T50N R06W Sections 33, 34
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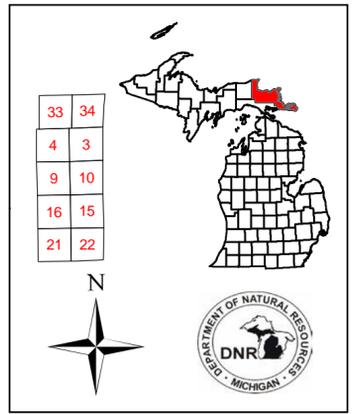
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Stocking Density
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- Legend**
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 - Hiking Trails
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 - County Paved Roads
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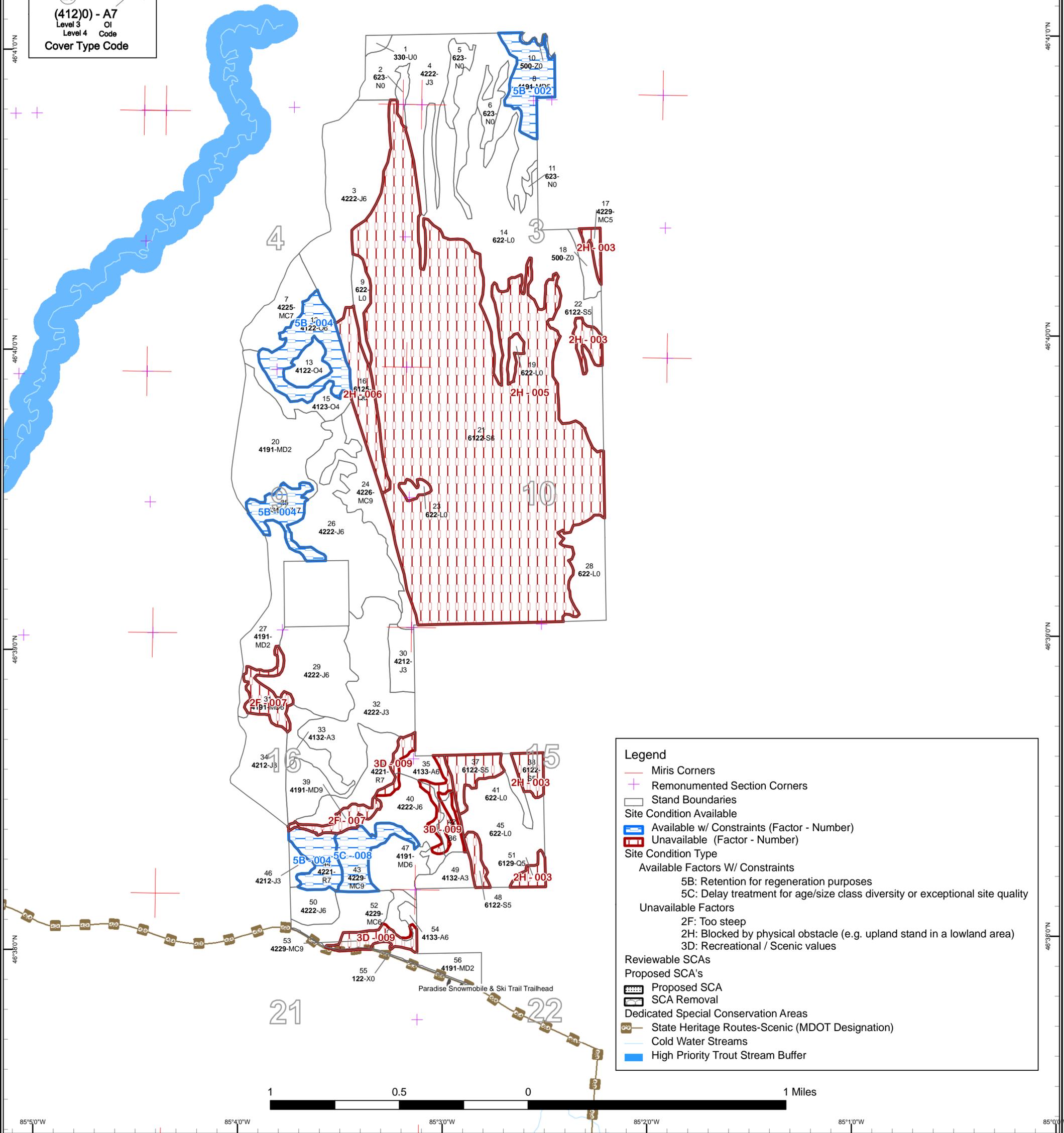
Special Conservation Areas & Site Conditions Map

Compartment: 068
 T49N R06W Sections 3, 4, 9, 10, 15, 16, 21, 22
 T50N R06W Sections 33, 34
 County: Chippewa
 Unit: Newberry
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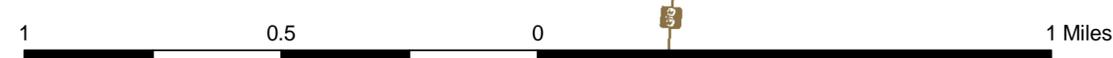
Stand #
 (23)
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

33 34



Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
 - 5B: Retention for regeneration purposes
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
 - 2F: Too steep
 - 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
 - 3D: Recreational / Scenic values
- Reviewable SCAs
- Proposed SCAs
 - Proposed SCA
 - SCA Removal
- Dedicated Special Conservation Areas
 - State Heritage Routes-Scenic (MDOT Designation)
 - Cold Water Streams
 - High Priority Trout Stream Buffer



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	14	18	0	0	0	0	19	7	0	0	0	0	0	58
Jack Pine	0	181	106	253	0	0	0	37	0	0	0	0	0	0	578
Low-Density Trees	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	0	0	0	6	31	0	0	0	0	0	37
Lowland Shrub	326	0	0	0	0	0	0	0	0	0	0	0	0	0	326
Lowland Spruce/Fir	0	0	0	0	0	0	0	724	0	0	0	0	0	0	724
Marsh	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Mixed Upland Deciduous	129	0	0	0	0	0	0	66	17	0	0	0	0	0	212
Natural Mixed Pines	0	0	0	0	0	26	0	110	5	0	0	0	0	0	141
Oak	0	0	0	0	0	0	0	32	43	0	0	0	0	0	75
Paper Birch	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11
Red Pine	0	0	0	0	0	29	0	21	0	0	0	0	0	0	50
Upland Mixed Forest	0	0	0	0	0	0	0	22	0	0	0	0	0	0	22
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	501	195	124	253	0	55	0	318	802	31	0	0	0	0	2281



Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2016

Compartment 068
Total Compartment Acres: 2,281

Acres by Treatment Type

Commercial Harvest - 82	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>
Aspen Types	13	0	0	0	0	0	13
Mixed Upland Deciduous	25	0	0	0	0	0	25
Natural Pines	31	0	0	8	0	0	38
Other Upland Deciduous	6	0	0	0	0	0	6
Total	75	0	0	8	0	0	82



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	42068035-Cut	9.4	4133 - Aspen, Mixed Pine	High Density Pole	71		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Cut al trees except oak, red pine and white pine, unless needed for operability. Leave some component of mature aspen or birch in retention patch(es) and red line. Retention, as shown on map, is drawn from topo lines. Stay at base of steep slopes.</p> <p><u>Specs:</u></p> <p><u>Other</u> Ski Trail loop goes through stand. Place retention strategically for visual and weather (drifting) aspects of the ski trail.</p> <p><u>Comments:</u></p> <p><u>Next</u> Regeneration survey per Work Instructions. Acceptable regeneration includes aspen, oak, birch, and red, white and jack pines.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
40	42068040-Cut	30.7	42220 - Natural Jack Pine	High Density Pole	70		Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all trees except red pine, white pine and oak. Retention, as shown on map, is drawn from topo lines. Stay at base of steep slopes.</p> <p><u>Specs:</u></p> <p><u>Other</u> Ski trail goes through small part of stand. Place retention strategically for visual aspects of ski trail.</p> <p><u>Comments:</u></p> <p><u>Next</u> Scarify after harvest for natural jack pine regeneration. Other acceptable regeneration includes components of aspen, oak and red and white pine. If natural regeneration fails, plant to jack pine per TMS instructions.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
42	42068042-Cut	6.3	4140 - Other Upland Deciduous	High Density Pole	78		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all trees except red pine, white pine and oak, unless needed for operability. Leave some component of mature aspen or birch in retention patch(es) and red line. Retention, as shown on map, is drawn from topo lines. Stay at base of steep slopes.</p> <p><u>Specs:</u></p> <p><u>Other</u> Ski trail goes through stand. Place retention strategically for visual and weather (drifting) aspects of the ski trail.</p> <p><u>Comments:</u></p> <p><u>Next</u> Regeneration survey per Work Instructions. Acceptable regeneration includes aspen, birch, oak, and red, white and jack pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
47	42068047-Cut	25.2	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	75	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all trees except red pine, white pine and oak, unless needed for operability. Leave some mature aspen within the stand. Harvest will be for wildlife benefit.</p> <p><u>Specs:</u></p> <p><u>Other</u> Ski trail and snowmobile trail criss-cross the stand. Place retention strategically for visual and weather (drifting) aspects of the recreational trails.</p> <p><u>Comments:</u> Check locked comments before setting up sale.</p> <p><u>Next</u> Regeneration survey per Work Instructions. Acceptable regeneration includes aspen, birch, oak, balsam, and red, white and jack pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53 42068053-Cut	7.5	42290 - Natural Mixed Pine	High Density Log	76	81-110	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal

Prescription Cut all jack pine and aspen, leaving red pine, white pine and oak, unless needed for operability.

Specs:

Other Ski trail loop goes through stand. Place retention patch(es) strategically for visual and weather (drifting) aspects of the ski trail.

Comments:

Next Scarify or plant to mixed pine species. Regeneration survey per Work Instructions. Acceptable regeneration includes red, white and jack pine, aspen, oak and birch.

Steps:

Proposed

Start Date: 10/01/2015

54 42068054-Cut	3.2	4133 - Aspen, Mixed Pine	High Density Pole	82		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Cut all trees except red pine, white pine and oak, unless needed for operability.

Specs:

Other Ski trail crosses part of stand. Place retention strategically for visual and weather (drifting) aspects of ski trail.

Comments:

Next Regeneration survey per Work Instructions. Acceptable regeneration includes aspen, birch, oak, and red, white and jack pine.

Steps:

Proposed

Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 82.3**

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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!

PrescriptionSpecs:OtherComment:NextSteps:ProposedStart Date: #Type!Limiting Factor

Total Treatment Acreage Proposed:	0.0
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Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment 068
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	Dominant Site Conditions					
	Available	Not Available		No	5C	5B	3D	2H	2F
58	45	13	Aspen	45			13		
578	571	6	Jack Pine	571			6		
37		37	Lowland Conifers					37	
724		724	Lowland Spruce/Fir					724	
212	185	27	Mixed Upland Deciduous	154		31			27
141	129	13	Natural Mixed Pines	104	25		8	5	
75	75		Oak	32		43			
11	6	5	Paper Birch	6			5		
50	50		Red Pine	29		21			
22	22		Upland Mixed Forest			22			
1,908	1,082	825	Total Forested Acres	941	25	117	32	766	27
	57%	43%	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
002	Available	5B: Maintain for regeneration purposes	31				
Comments: Most white birch is dead or dying. May be too far gone to do any management, except let mother nature take its' course.							
003	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	30	2B: Unknown if access through adjacent landowner(s) is possible			
Comments: Small stands with questionable access.							
004	Available	5B: Maintain for regeneration purposes	86				
Comments:							

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment 068
Year of Entry 2016

005	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	705	2B: Unknown if access through adjacent landowner(s) is possible
Comments:				
006	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	31	
Comments:				
007	Not Available	2F: Too steep	27	
Comments:				
008	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	
Comments:				
009	Not Available	3D: Recreational / Scenic values	33	
Comments: Slopes left for ski trail aesthetics.				



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
Paradise Snowmobile & Ski Trail Trailhead	Concentrated Recreation Area	Trail Head	SCA	0.7
Comments				



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	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	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
SCA	Visual Management Area	An area of general social appreciation that is managed to recognize and preserve a particular visual value. Examples of these areas include scenic vistas, scenic or natural beauty roads, and lakeshore areas.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	42220 - Natural Jack Pine	High Density Pole	96.9	30		Cut in 1979 (#22-79A), scarified in 1982 (FTP 42-37), seeded in 1983 (FTP 42-153). Regeneration check done 10/30/86 - 913 t/ac; second stocking check 8/21/89 - still good. Had budworm damage in 2004. On edge between sap/pole stand. Nice JP. RP scattered thru stand with some WP. Spruce mainly on east side.
4	42220 - Natural Jack Pine	High Density Sapling	120.7	15		Pockets of balsam poplar; mainly on east side. Cut in 1997-98 (#29-96 Paradise Ridges JP). Scarified in 1998 under FTP 42-430. Stocking survey completed 5/15/2003 - 1,160 trees per acre.
7	42250 - Pine, Oak	Low Density Log	30.3	75	51-80	Two-storied stand. Varying densities of residual RP. Rolling terrain. Cut in 2008 (#33-06 - Paradise Salvage #3) as a JP salvage sale, scarified in 2008 and seeded in 3/2009 (FTP 42-678). 2012 regen check found 456 trees/acre. All oak, red pine, white pine and paper birch were left when cut.
8	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	31.2	76		Most white birch is dead or dying. May be too far gone to do any management, except let mother nature take its' course. Appears to be transitional ground.
12	4122 - Oak, Pine	High Density Pole	43.1	80	1-50	JP cut out of part of stand in 2008 (#33-06) due to budworm. A few JP still present.
13	4122 - Oak, Pine	Low Density Pole	13.0	75	1-50	Two-storied stand. Varying densities of residual RO & RP. Rolling terrain. Cut in 2008 (#33-06 - Paradise Salvage #3) as a JP salvage sale, scarified in 2008 and seeded in 3/2009 (FTP 42-678). 2012 regen check found 456 trees/acre.
15	4123 - Red Oak	Low Density Pole	19.1	75	1-50	Two-storied stand. Varying densities of residual RO. Rolling terrain. Cut in 2008 (#33-06 - Paradise Salvage #3) as a JP salvage sale, scarified in 2008 and seeded in 3/2009 (FTP 42-678). 2012 regen check found 456 trees/acre. Old ski trail loop ran thru stand, but has not been maintained in years.
16	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	31.1	90		Slight ridges of timber on low ground. Below escarpment. Possible old road down escarpment.
17	42290 - Natural Mixed Pine	Medium Density Pole	5.1	88		Low ridges of jack pine and spruce with white pine and red pine.
20	4191 - Mixed Upland Deciduous with Conifer	Medium Density	73.7	6	1-50	On edge between Forested and Non Forested. Two-storied stand. Varying densities of residual RP & RO. Rolling terrain. Cut in 2008 (#33-06 - Paradise Salvage #3) as a JP salvage sale, scarified in 2008 and seeded in 3/2009 (FTP 42-678). 2012 regen check found 456 trees/acre. Old ski trail loop ran thru stand, but has not been maintained in years.
21	6122 - Black Spruce	High Density Pole	682.1	87		Mainly S over C of varying densities and sizes. Smaller diameter to the north. Some spruce with mistletoe.
22	6122 - Black Spruce	Medium Density Pole	8.7	80		Fingers of timber within low marsh type.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	42260 - Natural Pine, Mixed Deciduous	High Density Log	40.2	75	51-80	Variable stand. Old ski trail loop ran along east edge of stand (bluff edge), but has not been maintained in years.
25	4310 - Pine, Oak Mix	Low Density Log	21.5	78	1-50	Two-storied stand. Varying densities of residual RP & RO. Rolling terrain. Cut in 2008 (#33-06 - Paradise Salvage #3) as a JP salvage sale, scarified in 2008 and seeded in 3/2009 (FTP 42-678). 2012 regen check found 456 trees/acre. Old ski trail loop ran thru stand, but has not been maintained in years.
26	42220 - Natural Jack Pine	High Density Pole	82.1	39		Cut in 1973-74 (#8-72A), scarified in 1974 (FTP 97)
27	4191 - Mixed Upland Deciduous with Conifer	Medium Density	36.8	6	1-50	On edge between Forested and Non Forested. Two-storied stand. Varying densities of residual RO & RP. Rolling terrain. Cut in 2008 (#33-06 - Paradise Salvage #3) as a JP salvage sale, scarified in 2008 and seeded in 3/2009 (FTP 42-678). 2012 regen check found 456 trees/acre. Old ski trail loop ran thru stand, but has not been maintained in years.
29	42220 - Natural Jack Pine	High Density Pole	58.3	36		Cut in 1976 (#9-76A), scarified 1977 (FTP 42-142). Budworm damage was noted during last inventory (2004). Old ski trail loop ran thru stand, but has not been maintained in years.
30	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	15.3	14		Cut in 1993 (#17-90 - Station North Remnant sale), scarified in 1994 (FTP 42-330). Scarification failed, machine planted in 2000 (FTP 42-324). Old ski trail loop ran thru stand, but has not been maintained in years.
31	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	16.7	83	81-110	Variable stand with steep ridges and old ski trail.
32	42220 - Natural Jack Pine	High Density Sapling	106.4	23		Southern half of stand: T. sale #10-88 "Old Paradise sale", cut 1990, FTP 42-258 scarified 9/90 - steep ridges with oak were avoided; regeneration check done 9/6/94 - fully stocked. Northern half of stand: T. sale #15-88 "Station North Road" sale cut 1990, FTP42-255 scarified 9/90. Old ski trail loop ran thru stand, but has not been maintained in years.
33	4132 - Aspen, Jack Pine	High Density Sapling	17.6	23		FTP 42-258: scarified 9/90 - steep ridges with oak were avoided (mainly this stand). Regeneration check done 9/6/94 - fully stocked. Old ski trail loop ran thru stand, but has not been maintained in years.
34	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	39.6	14		Sale #27-96 "Paradise Jack Pine" - cut spring, 1998. Scarified in June, 1998, and machine planted with 2-0 JP in May, 2000 (FTP # 42-436). Ridge through stand with RP and oak residual.
35	4133 - Aspen, Mixed Pine	High Density Pole	19.1	71		The north ski trail loop passes thru stand.
36	42210 - Natural Red Pine	Low Density Log	29.1	50	1-50	Two-storied stand. Stand harvested as "Paradise Ski Trail Jack Pine", sale #034-06-01, completed 8/7/08. Scarification completed 10/2008 (FTP42-681). Regeneration check summer 2012: Wp = 26 Aspen = 19 JP = 52 RP = 59 RO = 26 TPA = 184. The north ski trail loop passes thru stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	6122 - Black Spruce	Medium Density Pole	16.1	87		Below escarpment.
38	6122 - Black Spruce	Medium Density Pole	10.1	88		
39	4191 - Mixed Upland Deciduous with Conifer	High Density Log	10.0	78	81-110	High ridge with some saddles, but would be difficult logging. Quite variable. The north ski trail loop passes thru stand.
40	42220 - Natural Jack Pine	High Density Pole	37.1	70		Fairly pure JP stand. Scattered aspen and red pine. The north ski trail loop passes thru stand.
42	4140 - Other Upland Deciduous	High Density Pole	10.8	78		Ridge runs along west side and escarpment along east edge. WB dead and dying. The north ski trail loop passes thru stand.
43	42290 - Natural Mixed Pine	High Density Log	24.5	78	111-140	Big knob in middle of stand.
44	42210 - Natural Red Pine	Low Density Log	21.1	72	1-50	Two-storied stand. Cross-country ski trail runs through the stand. Stand harvested as "Paradise Ski Trail Jack Pine", sale #034-06- 01, complete 8/7/08. Scarification completed 10/2008 (FTP42- 681). Regeneration check summer 2012: Wp = 26 Aspen = 19 JP = 52 RP = 59 RO = 26 TPA = 184.
46	42120 - Planted Jack Pine	High Density Sapling	5.8	14		Sale #27-96 "Paradise Jack Pine" - cut spring, 1998. Scarified in June, 1998, and machine planted with 2-0 JP in May, 2000 (FTP # 42-436)
47	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	25.2	75	81-110	Some dead birch. Variable density of WP/RP (10 - 80 BA) and varying sizes of WP/RP (4" - 16"). The north ski trail loop passes thru stand.
48	6122 - Black Spruce	Medium Density Pole	7.0	88		Black spruce with white pine and red pine, occassional cedar and tamarack.
49	4132 - Aspen, Jack Pine	High Density Sapling	13.8	15	1-50	Two-storied stand of RP over A and JP. Sale #31-96 "Five Story Jack Pine". Cut summer 1997. FTP#42-420: scarification completed 6/98. Stocking survey completed 5/15/2003 - 342 trees per acre. Plant 2004?
50	42220 - Natural Jack Pine	High Density Pole	15.5	33		T. sale #9-77A - cut 1980. JP on edge between sap and pole.
51	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	6.4	88		
52	42290 - Natural Mixed Pine	High Density Pole	26.2	56	51-80	Two-storied stand of RP w/ RO over JP/A. Aspen and jack pine are reaching canopy height. "Bonanaza Jack Pine" sale #11-88 - cut in 1990; sale was never scarified, but there is considerable jack pine regeneration (and pockets of aspen regeneration) with scattered red and white pine. The north ski trail loop passes thru stand.

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Newberry Mgt. Unit

Report 8 – Forested Stands

Compartment: 068
Year of Entry: 2016

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
53	42290 - Natural Mixed Pine	High Density Log	15.2	76	81-110	High ridge parallel to M-123. Variable RP densities. Some dead JP. Occasional WB and WP. The north ski trail loop passes thru stand.
54	4133 - Aspen, Mixed Pine	High Density Pole	7.2	82		Ridges. RP with variable densities. The north ski trail loop passes thru stand.
56	4191 - Mixed Upland Deciduous with Conifer	Medium Density	18.5	5	1-50	Two-storied stand. Stand harvested as "Paradise Ski Trail Jack Pine", sale #034-06-01. Completed 8/7/08. Scarification completed as of 10/10/08 (FTP42-681). Regeneration check needed in 2012. summer 2012: Wp = 26 Aspen = 19 JP = 52 RP = 59 RO = 26 TPA = 184. The north ski trail loop passes thru stand.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3302 - Low Density Conifer Trees	3.6	Natural Regen	Jack Pine	On edge between Forested and NonForested. Jack pine was salvaged as part of Paradise Salvage #3. Small acreage to plant or seed.
2	623 - Emergent Wetland	5.3	No	Unspecified	
5	623 - Emergent Wetland	11.3	No	Unspecified	
6	623 - Emergent Wetland	10.9	No	Unspecified	
9	622 - Lowland Shrub	11.7	No	Unspecified	
10	50 - Water	1.3	No	Unspecified	Betsy River
11	623 - Emergent Wetland	2.1	No	Unspecified	
14	622 - Lowland Shrub	205.9	No	Unspecified	Includes some sparse ridges of timber (mainly black spruce).
18	50 - Water	9.1	No	Unspecified	
19	622 - Lowland Shrub	4.3	No	Unspecified	
23	622 - Lowland Shrub	4.0	No	Unspecified	
28	622 - Lowland Shrub	34.0	No	Unspecified	
41	622 - Lowland Shrub	7.1	No	Unspecified	
45	622 - Lowland Shrub	59.5	No	Unspecified	
55	122 - Road/Parking Lot	2.5	Yes	Low	M-123 Scenic Heritage Route