



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 42054

Entry Year 2017

Acreage: 2,068

County Chippewa

Management Area: Whitefish Vermillion Point

Revision Date: 2015-09-04

Stand Examiner: Amy Douglass

Legal Description:

T50N R07W Sections 1-4, 9-12 & 15

Identified Planning Goals:

Manage timber for health, diversity and wildlife habitat. Protection of the natural communities associated with the sensitive dune systems and the Lake Superior shoreline is an essential goal within the compartment.

Soil and topography:

Deer Park fine sands predominates the rolling upland pine areas with abrupt escarpments. The slightly rolling hardwoods are split between Wainola-Kinross-Rousseau complex and Kalkaska-Ocqueoc complex, with small inclusions of Kinross-Wainola complex and Alcona loamy very fine sand. The area below the sand escarpment is generally low ground on primarily Markey-Kinross-AuGres complex and Croswell-Markey complex to the east. The dunes along Lake Superior consists of Deer Park-Kinross complex.

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

State lands abut to the east and southeast. The inholdings along the lakeshore are held by Little Traverse Conservancy and Michigan Nature Association. These landowners continue along the western boundary also. The Little Traverse Conservancy lands along the lakeshore are managed as the Vermillion Point Nature Preserve, where their goal is to preserve Vermillion's historical and natural environment. Their other ownership in section 9 is managed as Jinny Palms Nature Preserve. This tract of land is being managed as a protected natural area and is for recreational and educational purposes. The Michigan Nature Association has two holdings: Lake Superior Nature Sanctuary and Pat Grogan Shelldrake Bog. Their goal is to protect some of Michigan's most exceptional natural habitats and exceptional or extraordinary species.

Smaller parcels (generally 10 acres in size), used as camps, abut to the south.

Unique Natural Features:

MNFI has identified several and potential threatened and endangered flora and fauna.

Archeological, Historical, and Cultural Features:

The Vermillion Point Lifesaving Station is adjacent on Little Traverse Conservancy lands.

Special Management Designations or Considerations:

The area below the escarpment along the lakeshore should be considered as a Natural Area due to its' similarity to the adjacent Little Traverse Conservancy and Michigan Nature Conservancy lands. This area also continues to the west along the lakeshore. The three lone parcels in the southwest could be offered to the Little Traverse Conservancy or Michigan Nature Association due to the limited access and adjacency to these holdings. No management is being considered within these areas.

Watershed and Fisheries Considerations:

Fisheries Values: Poor to Good

Fisheries Concerns: The Betsy River borders the south edge of this compartment with the Weatherhog or Two Mile Lakes located in the northern portion. Most of these lakes are subject to frequent winter-kills due to the heavy snowfall that occurs in this area. The Betsy River reach in this area provides a transitional fishery for primarily Northern Pike. Many of the stands near the river are restricted for access to some degree, but any treatments that do occur in stands near the river need to adhere to a buffer of 100 feet.

Wildlife Habitat Considerations:

Compartment 54 lies in northern Chippewa County along Lake Superior and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment lies in the Vermillion Whitefish Point Management Area and has moose, piping plover, spruce grouse and red crossbill as featured species. The northern part of the compartment is primarily marsh and lowland brush with mixed conifer stands and ridges of birch throughout. Sand dunes lie along the

northern shoreline. South of the birch ridges, the compartment is dominated by red and jack pine stands with a few non-pine stands mixed in. Pre-settlement data are consistent with current vegetation patterns. The Betsy River borders much of the southern edge of this compartment and The Michigan Nature Association, Wild Shore Foundation and Little Traverse Conservancy own adjacent properties on the north and west borders of the compartment. Approximately 1/3 to 1/2 of the compartment is wildlife purchased lands.

The northern portions of this compartment are being retained for age class diversity and will be a great benefit to wildlife values of the compartment. In the predominantly pine forested ecosystem in the southern portion, maintaining a variety of age and size classes and maintaining structural diversity 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. Forested corridors should be plentiful and facilitate ease of movement between upland and lowland areas. Wildlife species potentially using this compartment include white-tailed deer, moose, ruffed grouse, black bear, otter, mink, and gray wolves.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel and a portion of an end moraine of coarse-textured till extends into Section 10. There is insufficient data to determine the glacial drift thickness (~ >100 feet). 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, but there may be potential on the uplands. There is no economic oil and gas production in the UP.

Vehicle Access:

The main vehicle access into the compartment is via the Vermilion Road, a county sand road. Other roads in the compartment are primarily poor sand two tracks. There are several two tracks that lead to private cabins within the compartment areas, many of which are gated. Much of the acreage in the northern portion of the compartment is accessible by foot only.

Survey Needs:

Corners will be needed for treatments along private lands in section 3 and 10.

Recreational Facilities and Opportunities:

Snowmobile trail #452 crosses the compartment. There are some informal campsites used along the Betsy River. Walking trails exist within the adjacent Nature Preserves. Most are old logging roads.

Fire Protection:

The compartment is part of the Whitefish Zone Dispatch Area. Wide spread areas of conifers and mixed lowland types may impact suppression efforts. Response times to this area are quite long, which may impact on fire size and risk to surrounding private property.

Additional Compartment Information:

Compartment lines changed from last entry by adding stands in sections 4 and 9 due to proximity and access.

The following reports from the Inventory are attached:

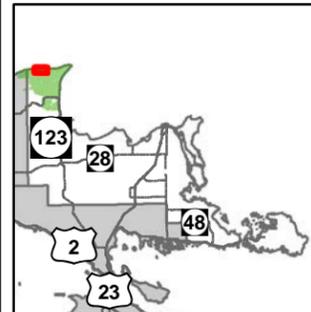
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

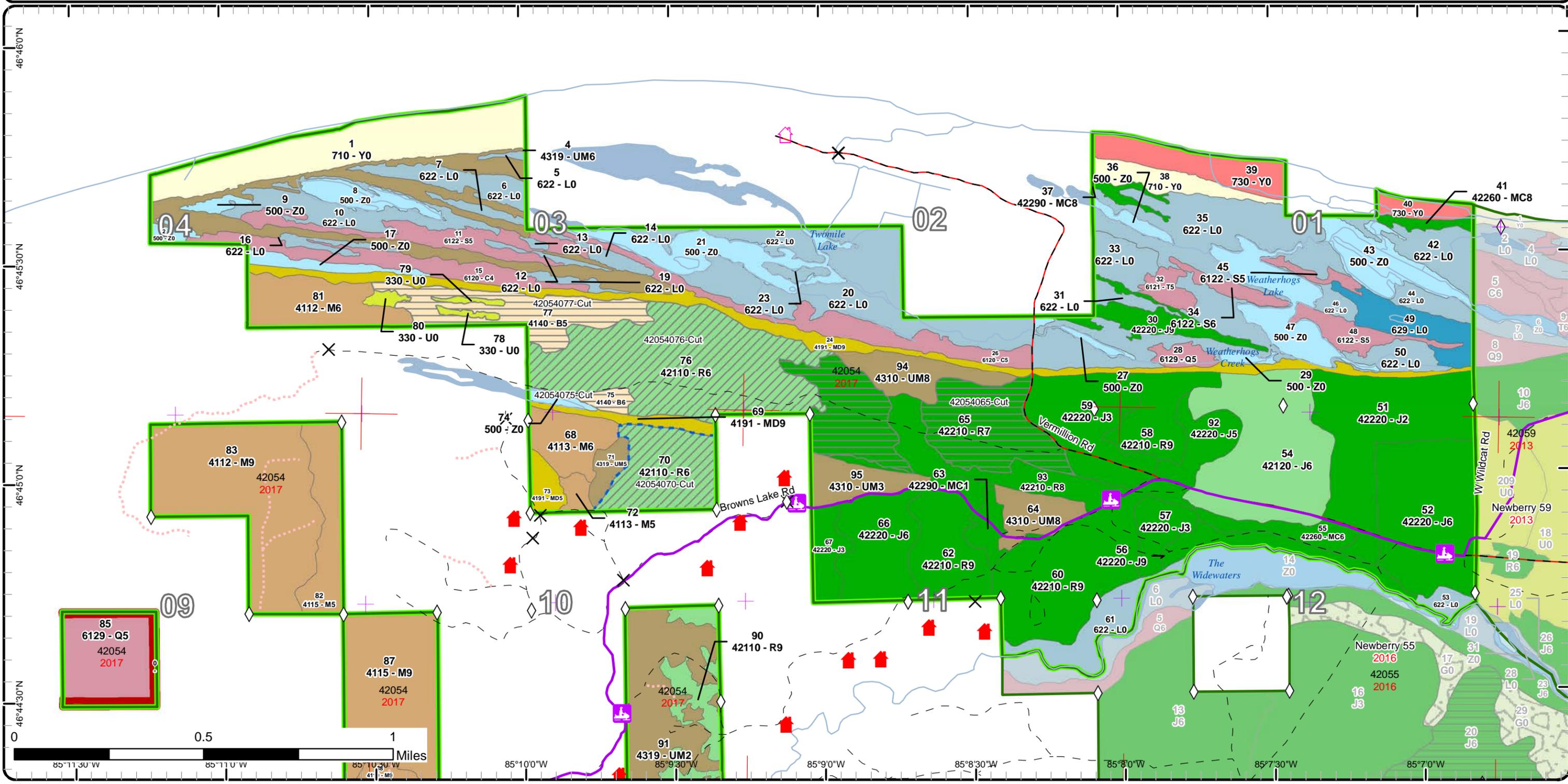
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 54
 T50N R07W 01-04, 09-12, 15
 County: Chippewa
 Unit: Newberry
 Mgmt Area: Whitefish Vermillion Point
 YOE: 2017
 Acres: 2068 GIS Calculated
 Examiner: Amy Douglass
 Map Revised: 3/30/2016
 Map Phase: Post-Review

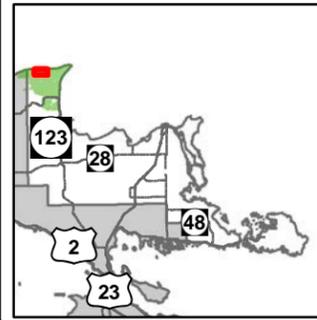


- | | | |
|---|---|--|
| <ul style="list-style-type: none"> — Miris Corners + Remonumented Section Corners ◇ Field Grade GPS Corners 🚙 Snowmobile Trails — Designated Snowmobile Trails ✕ Gate 🏠 Unspecified Structures 🏠 Cabin - - Poor Dirt Roads — County Poor Dirt Roads ⋯ Closed Roads — Rivers ▭ Compartment Boundary | <ul style="list-style-type: none"> ▭ Treatments with Site Conditions ▭ Clearcut (w/Reserves) ▭ Thinning (Crown, Low, Systematic) 🚫 No Stand Data <p>Forest Covertype</p> <ul style="list-style-type: none"> 411 - Northern Hardwood 414 - Other Upland Deciduous 419 - Mixed Upland Deciduous 421 - Planted Pines 422 - Natural Pines 430 - Upland Mixed Fores 612 - Lowland Coniferous Forest | <p>Non-Forest Covertype</p> <ul style="list-style-type: none"> 330 - Low Density Trees 500 - Water 622 - Lowland Shrub 629 - Mixed non-forested wetland 710 - Sand/Soil 730 - Mud Flats Lakes |
|---|---|--|

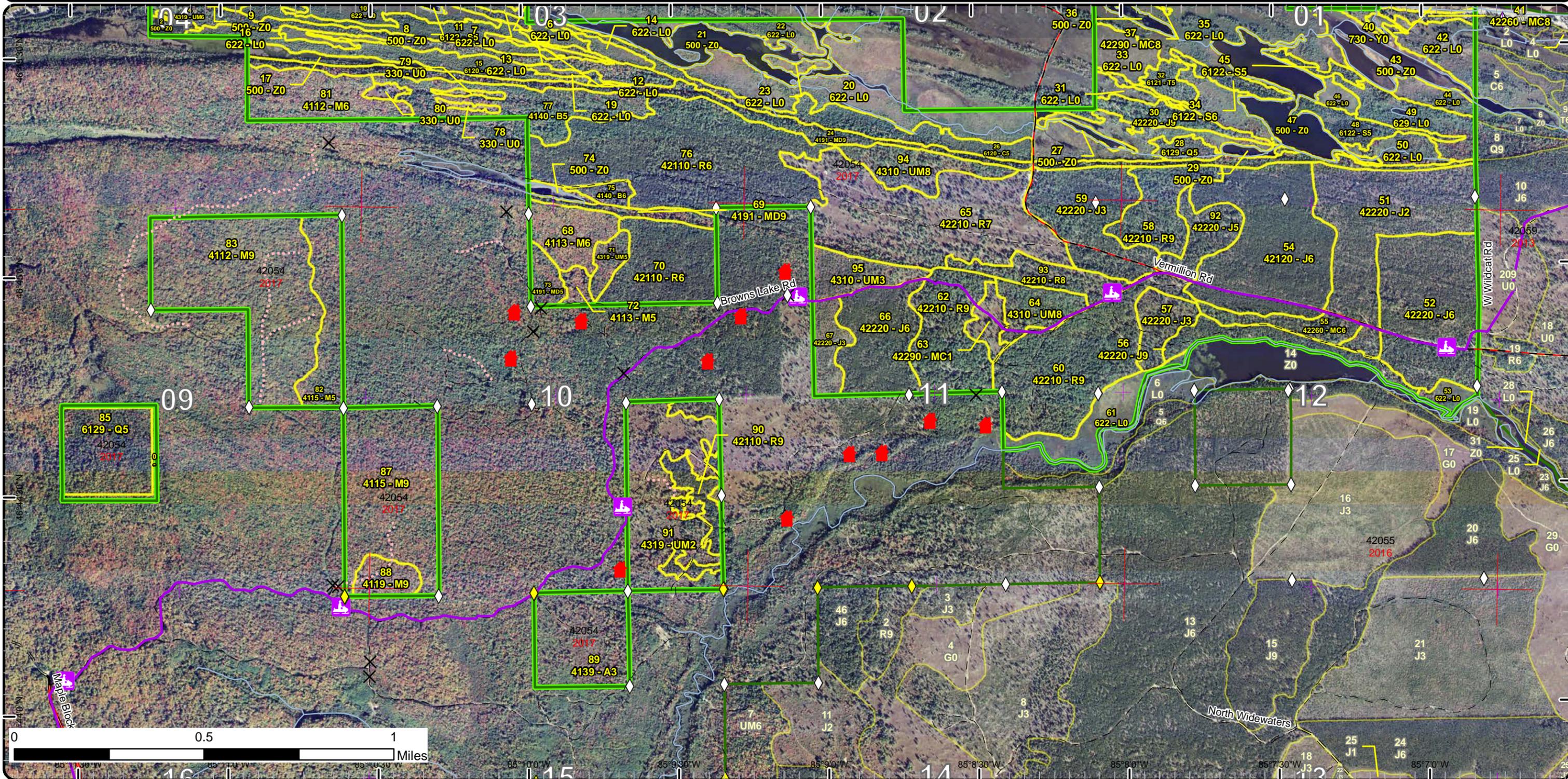


Stand Boundary Map

Compartment: 54
 T50N R07W 01-04, 09-12, 15
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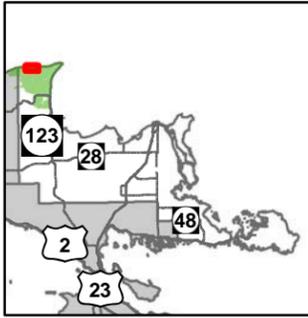


- Miris Corners
- Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- 🚙 Snowmobile Trails
- 🚙 Designated Snowmobile Trails
- ✕ Gate
- 🏠 Cabin
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Rivers
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Fores
- 612 - Lowland Coniferous Forest
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland

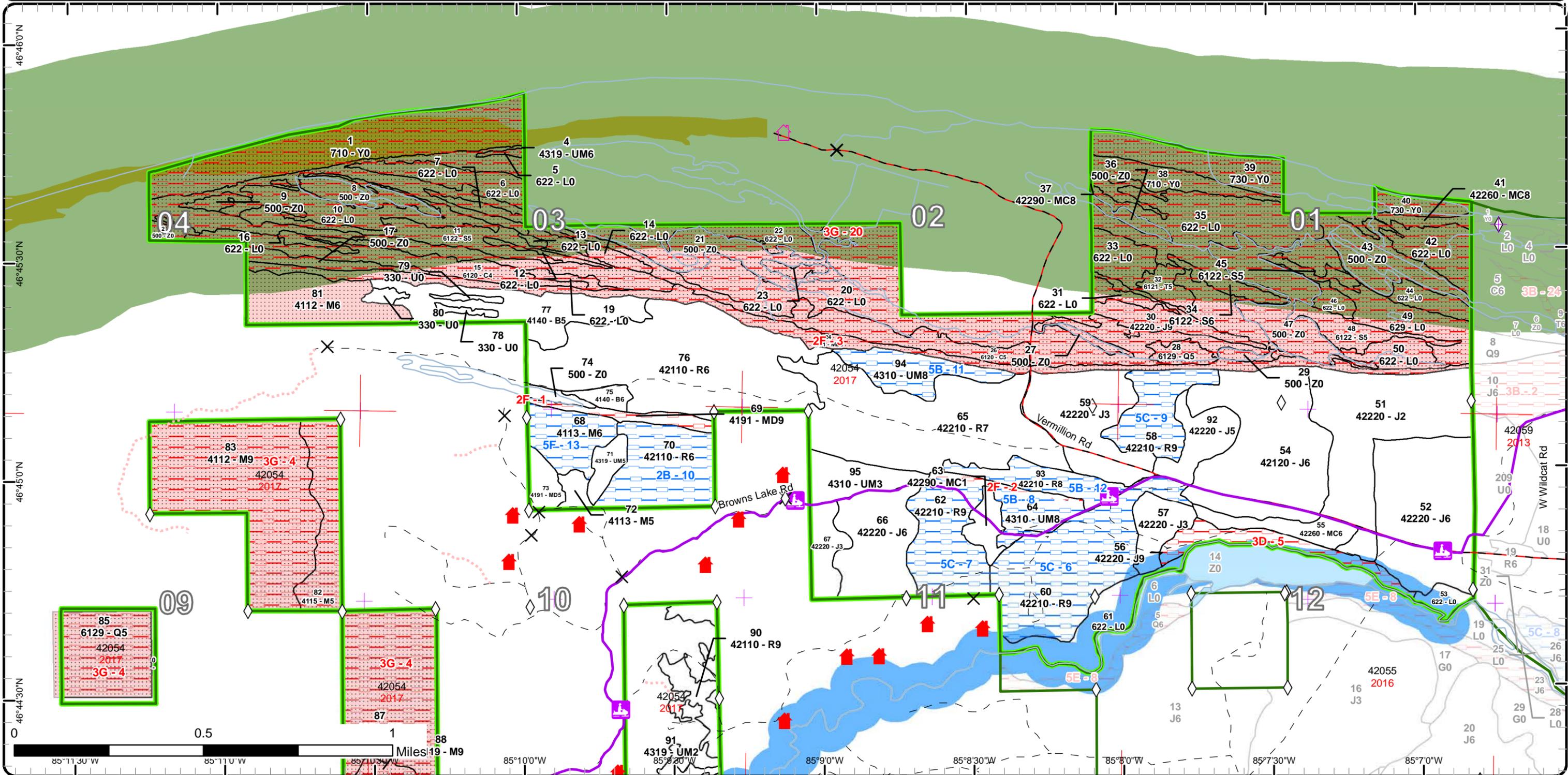


Special Conservation Areas & Site Conditions Map

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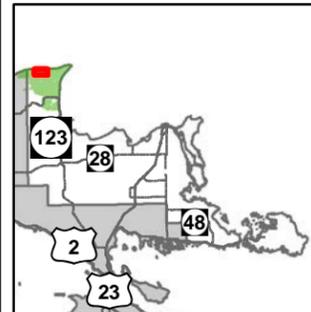


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|---|--|---|

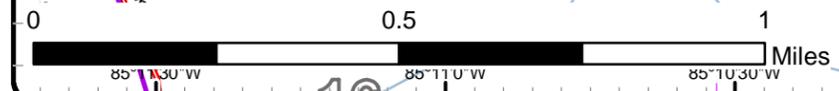
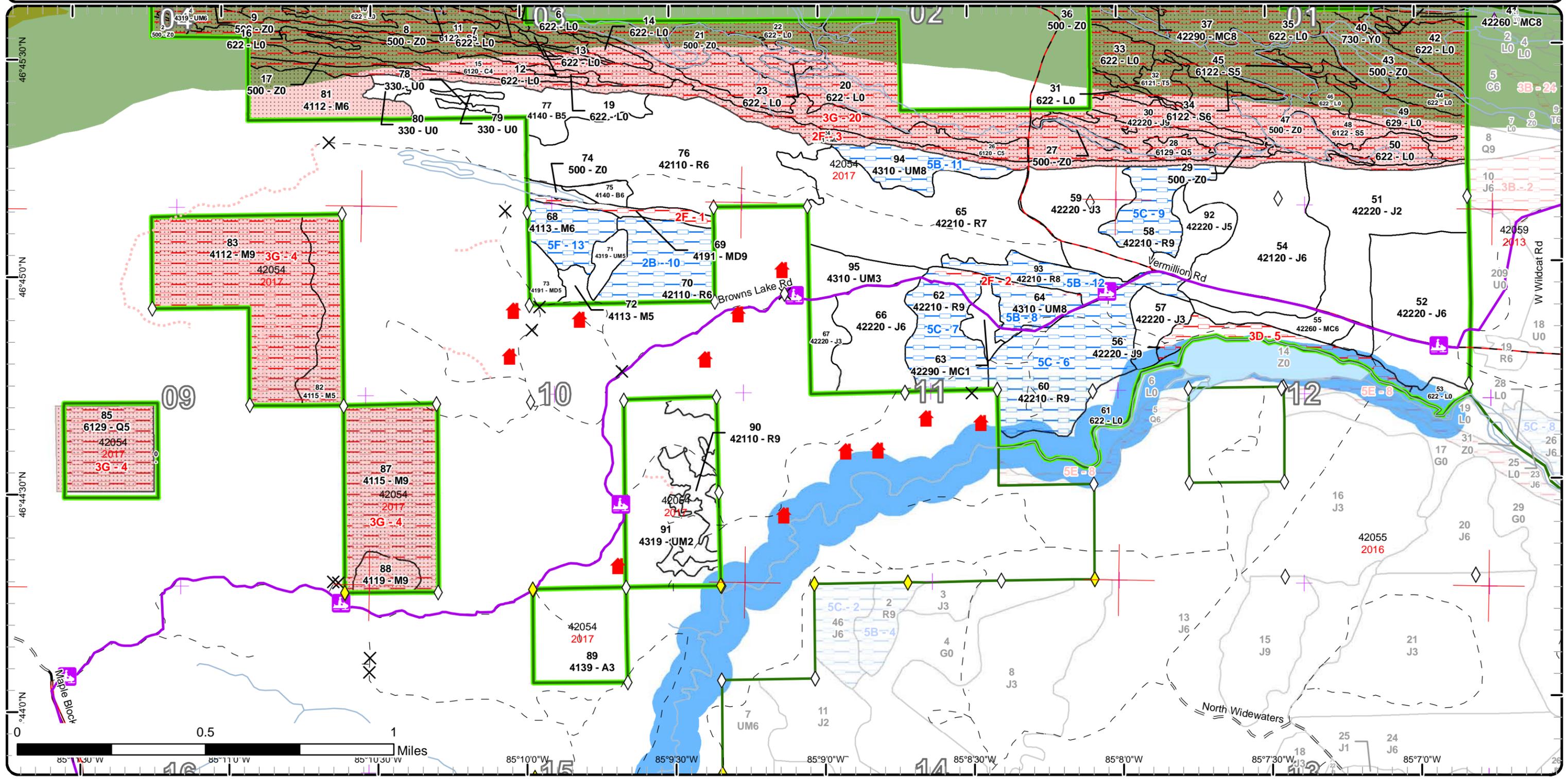


Special Conservation Areas & Site Conditions Map

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- Miris Corners
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- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- ⋯ Closed Roads
- Rivers
- ▭ Compartment Boundary
- ▭ SCA
- Available w/ Constraints
- Unavailable
- 2B: Unknown if access through adjacent landowner(s) is possible
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 3D: Recreational / Scenic values
- 3G: Other Influence zones - See comments
- ▭ Stand Boundaries
- ▭ Special Conservation Areas
- ▭ Critical Coastal Habitat (Piping Plover)
- ▭ Cold Water Streams
- ▭ Cold Water Lakes
- ▭ Non-Dedicated Natural Areas and National Natural Landmarks
- ▭ High Priority Trout Stream Buffer
- ▭ Contiguous Resource Area



46°45'30"N 46°45'0"N 46°44'30"N 46°44'0"N
 85°11'30"W 85°11'0"W 85°10'30"W 85°10'0"W 85°9'30"W 85°9'0"W 85°8'30"W 85°8'0"W 85°7'30"W 85°7'0"W

Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Cedar	0	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	52
Jack Pine	0	0	0	25	286	0	16	0	0	33	0	0	0	0	0	0	0	0	360
Low-Density Trees	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Conifers	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	40
Lowland Shrub	332	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332
Lowland Spruce/Fir	0	0	0	0	0	0	0	23	0	21	0	0	0	0	0	0	0	0	44
Mixed Upland Deciduous	0	0	0	0	0	0	7	0	0	51	0	0	0	0	0	0	0	0	58
Natural Mixed Pines	0	8	0	0	0	12	0	0	0	0	0	0	0	8	0	0	0	0	28
Northern Hardwood	0	0	0	0	0	0	23	0	0	137	0	0	0	0	0	0	0	94	254
Paper Birch	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	41
Red Pine	0	0	0	0	0	0	159	0	0	233	0	0	0	0	0	0	0	0	392
Sand, Soil	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114
Tamarack	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7
Upland Mixed Forest	0	0	60	16	0	0	7	0	0	92	0	0	0	0	0	0	0	0	175
Water	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
Total	572	8	100	41	286	12	212	23	0	707	0	0	0	8	0	0	0	94	2063



Report 2 – Treatment Summary

Newberry Mgt. Unit

Compartment 54

Year of Entry:

Acres of Harvest

Total Compartment Acres: 2,068

Commercial Harvest -
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut -

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Paper Birch	41	0	0	0	0	0	0	0	0	41
Red Pine	76	0	0	0	0	139	0	0	0	215
Total	117	0	0	0	0	139	0	0	0	256

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	256	0	0	0	0	0	0	0	0	256
Next Step	0	76	76	0	0	0	193	0	0	346
Total	256	76	76	0	0	0	193	0	0	602



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
65	42054065-Cut	76.3	42210 - Natural Red Pine	Sawtimber Poor	86	1-50	Harvest	Clearcut	4212 - Planted Jack Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No **Site Condition:**

Prescription Harvest remaining pine overstory, if needed, to reduce shading, in preparation for trenching and planting. Area was divided in two portions to provide corridor of higher residual overstory (increased diversity of oak, red pine, white pine and spruce) in between clearcuts, to be left for wildlife benefits.

Next Step Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Trenching

Acceptable Regen: Jack pine, red pine, white pine and oak.

Other Comment: Failed scarification and regeneration counts. Old next step comments:

Proposed Start Date: 10/28/2015

70	42054070-Cut	36.1	42110 - Planted Red Pine	Poletimber Well	56	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition: Unknown Access**

Prescription Mark for first thinning. May be hard to follow rows. Leave oak and non-red pine for wildlife benefit.

Next Step Treatments:

Acceptable Regen:

Other Comment: Will need access across private property and lines run against private. Old next step comments:

Proposed Start Date: 10/01/2016

75	42054075-Cut	4.7	4140 - Other Upland Deciduous	Poletimber Well	86	Unspecified	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription Cut all species. Leave some large white pine where present for bear refuge trees. Leave oak if present. No patch retention due to small acreage.

Next Step Treatments:

Acceptable Regen: White birch, red maple, aspen, oak, white pine, balsam and spruce.

Other Comment: May need to buffer drainage. Determine at setup. Old next step comments:

Proposed Start Date: 10/01/2016

76	42054076-Cut	102.9	42110 - Planted Red Pine	Poletimber Well	56	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription Mark for first thinning. May be hard to follow rows. Leave oak and non-red pine for wildlife benefit.

Next Step Treatments:

Acceptable Regen:

Other Comment: Will need to run private property lines. Old next step comments:

Proposed Start Date: 10/01/2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
77	42054077-Cut	36.0	4140 - Other Upland Deciduous	Poletimber Medium	86	Unspec ified	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Cut all species, leaving some large white pine and all oak where present for bear refuge trees. Areas too steep may be left for retention.

Specs: Regeneration will be good moose browse.

Next Step

Treatments:

Acceptable White birch, red maple, oak, white pine, balsam and spruce.

Regen:

Other Will need to run private property lines. May not be able to harvest entire stand due to steepness and/or survey needs. Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

**Total Treatment
Acreage Proposed: 256.0**

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment: 54
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available
40	40	0	0
52	0	0	52
361	327	0	33
6	6	0	0
40	0	0	40
332	27	0	305
45	0	0	45
59	7	0	51
28	20	0	8
254	35	19	200
41	41	0	0
392	213	178	2
114	0	0	114
7	0	0	7
174	82	33	59
120	3	0	117
2,063	801	230	1,032
	39%	11%	50%

Dominant Site Conditions

	Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions								
					2B	5B	5C	5F	2F	3D	3G		
40	40	40	0	0	Aspen								
52	0	0	0	52	Cedar								52
361	327	327	0	33	Jack Pine						17		16
6	6	6	0	0	Low-Density Trees								
40	0	0	0	40	Lowland Conifers								40
332	27	27	0	305	Lowland Shrub								305
45	0	0	0	45	Lowland Spruce/Fir								45
59	7	7	0	51	Mixed Upland Deciduous					51			
28	20	20	0	8	Natural Mixed Pines								8
254	35	35	19	200	Northern Hardwood				19				200
41	41	41	0	0	Paper Birch								
392	213	213	178	2	Red Pine	36	16	125		2			
114	0	0	0	114	Sand, Soil								114
7	0	0	0	7	Tamarack								7
174	82	82	33	59	Upland Mixed Forest		33			2			58
120	3	3	0	117	Water								117
2,063	801	801	230	1,032	Total Forested Acres	36	49	125	19	55	17		959
	39%	39%	11%	50%	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
1	Unavailable	2F: Too steep	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment: 54
Year of Entry: 2017

3	Unavailable	2F: Too steep	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3G: Other Influence zones - See comments	234	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access is through Little Traverse Conservancy's Jinny Palms Nature Preserve. These parcels should be looked at for trade or disposal with the Little Traverse Conservancy or Michigan Nature Association (adjacent landowners also).							
5	Unavailable	3D: Recreational / Scenic values	17	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Area is used by dispersed campers and fisherman. Overlooks the Widewaters.							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	67	Unspecified	Unspecified	Unspecified	Unspecified
Comments: BA range is still relatively low. Could possibly do a light thinning, but with the road and public concerns it would be best to hold for 10 years.							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34	Unspecified	Unspecified	Unspecified	Unspecified
Comments: BA range is still low. With the road and public concerns it would be best to hold for 10 years.							
8	Available	5B: Maintain for regeneration purposes	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Shelterwood cut in 2009. Nice regeneration coming in.							

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment: 54
Year of Entry: 2017

9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments: BA range is still relatively low. Could possibly do a light thinning, but with the road and public concerns it would be best to hold for 10 years.							
10	Available	2B: Unknown if access through adjacent landowner(s) is possible	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5B: Maintain for regeneration purposes	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5B: Maintain for regeneration purposes	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Available	5F: Evaluated for Forest Health Considerations	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Evaluated for SBW.							
20	Unavailable	3G: Other Influence zones - See comments	725	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Proposed natural area along recessional beach lines, dunes, and adjacent areas of Lake Superior. Connect with existing proposed natural area(s) in Comp 53 to the west. In-holdings are owned by Little Traverse Conservancy and Michigan Nature Association. Contains lowland drainages of Weatherhogs Creek and other associated with Two Mile Lake and Weatherhogs Lake, as well as dune and swale complex.							



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
LTC/MNA SCA	Contiguous Resource Area		Proposed SCA	237
Comments				
Three parcels adjacent to Little Traverse Conservancy and/or Michigan Nature Association lands. Gated to vehicle access. Consider offering to LTC or MNA.				
Vermillion Point SCA	Contiguous Resource Area		Proposed SCA	800
Comments				
Includes land below old lake bluff, along Lake Superior Shoreline and adjacent to Michigan Nature Association and Little Traverse Conservancy Lands. Includes Two Mile Lake and Weatherhogs Lakes. SCA=Potential 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	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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	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.
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.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	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:
4	4319 - Mixed Upland Forest	Poletimber Well	57.6	81	Unspecified	Narrow ridges of birch, maple, white pine, balsam, spruce, cedar and red pine. Occasional oak and jack pine.
11	6122 - Black Spruce	Poletimber Medium	23.4	61	Unspecified	Non-productive stand. Mix of black spruce and cedar.
15	6120 - Lowland Cedar	Poletimber Poor	24.0	86	Unspecified	Cedar, black spruce and white pine.
24	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	43.7	86	81-110	Steep hillside across the compartment. Varied stand of white birch, red maple, white pine, balsam spruce and cedar. Occasional yellow birch, jack pine and red pine. White birch dying out. Thick balsam understory in places.
26	6120 - Lowland Cedar	Poletimber Medium	27.8	86	Unspecified	Poor site. Top-dead cedar mixed with black spruce. Occasional white pine.
28	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	5.4	81	Unspecified	Stand is mostly cedar and spruce with a mix of tamarack, paper birch and red maple. Lowland area along marsh and heel of an escarpment to the south.
30	42220 - Natural Jack Pine	Sawtimber Well	15.7	81	111-140	Ridge, narrow in places, that sticks out into lowland types. Access road bisects the stand starting from Vermillion Road and ending on east end of stand at Weatherhogs Lakes. Access is through Michigan Nature Association land (Pat Grogan Orchid Bog).
32	6121 - Tamarack	Poletimber Medium	6.7	86	Unspecified	
34	6122 - Black Spruce	Poletimber Well	6.0	86	Unspecified	
37	42290 - Natural Mixed Pine	Sawtimber Medium	4.1	126	81-110	Stand is on sand ridges directly adjacent to Lake Superior.
41	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	4.1	126	81-110	Stand is on sand ridges directly adjacent to Lake Superior.
45	6122 - Black Spruce	Poletimber Medium	4.0	86	Unspecified	
48	6122 - Black Spruce	Poletimber Medium	11.1	86	Unspecified	No access to this stand. Some small ridges within stand.
51	42220 - Natural Jack Pine	Sapling Medium	68.6	33	Immature	On edge between sapling and pole size. Originally cut in 1981 (#19-79A), scarified in 1982 (#42-34). Scattered red pine noted. Areas of full stocking and areas of medium stocking.
52	42220 - Natural Jack Pine	Poletimber Well	65.1	37	Unspecified	Originally cut in 1978 (#14-76A), scarified in 1978 (C-146).
54	42120 - Planted Jack Pine	Poletimber Well	74.7	34	Immature	Machine planted in 1982 (42-065). Originally cut in 1976 (#10-75A).



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
55	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	12.0	40	Unspecified	On edge between sapling and pole size.
56	42220 - Natural Jack Pine	Sawtimber Well	17.4	86	Unspecified	Buffer along the Widewaters. Campsites found within stand. Patchy red pine within jack pine stand.
57	42220 - Natural Jack Pine	Sapling Well	13.5	23	1-50	Good regen under scattered red pine. Cut in 1993 (#32-89).
58	42210 - Natural Red Pine	Sawtimber Well	24.1	86	81-110	Pockets with jack pine regen; otherwise fairly open understory. Thinned in 1979 (#7-77A).
59	42220 - Natural Jack Pine	Sapling Well	42.1	36	Unspecified	Just coming into pole size. Nice areas of mostly pure jack pine; other areas with residual red pine and occasional white pine left. Oak present. Cut in 1979 (#7-77A), and scarified in 1980 (42- 169).
60	42210 - Natural Red Pine	Sawtimber Well	66.7	86	111-140	Rolling hills, some steep. RP mixed with WP; occasional oak. Thinned in 1999 (#006-97).
62	42210 - Natural Red Pine	Sawtimber Well	36.3	86	81-110	Mixed red pine with white pine; occasional oak. Varying densities. WP regen in areas. Thinned in 1999 (#006-97).
63	42290 - Natural Mixed Pine	Sapling Poor	8.1	6	1-50	Cut in 2009 (West Pond Road JP #004-07).
64	4310 - Pine, Oak Mix	Sawtimber Medium	15.0	81	81-110	Nice regen and poles in spots. Other areas with higher BA has little regen, but nice poles. Cut in 2009 (West Pond Mix #004- 07).
65	42210 - Natural Red Pine	Sawtimber Poor	90.1	86	1-50	Variable regeneration. Cut in 2009 (#004-07), scarified in fall 2009 (42-685). Regen count in 2013 - 1963 trees/acre. Regen count in 2015 - 238 trees/acre. Maintain intent to manage as natural stand in the future.
66	42220 - Natural Jack Pine	Poletimber Well	34.9	36	Unspecified	Thick regen. On edge between pole and sapling size. Scattered residual WP and RP - mainly on eastern edge. Cut in 1980 (#3- 77A). Notes say it was full tree harvested.
67	42220 - Natural Jack Pine	Sapling Well	12.4	23	Immature	Much less diverse than north side of the road. Cut in 1993 (#032- 89).
68	4113 - R.Maple, Conifer	Poletimber Well	19.5	56	81-110	Slightly nicer red maple without as much balsam understory (in spots). Mostly single stem. Rolling terrain. Occasional cedar and large spruce.
69	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	7.7	86	81-110	Steep hillside with red maple, birch, white pine, balsam, spruce and cedar present.
70	42110 - Planted Red Pine	Poletimber Well	36.1	56	141-170	Pole to log size RP. Occasional large remnant WP. WP stumps evident. JP can be found singly and in patches. Future management should mimic natural pine.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
71	4319 - Mixed Upland Forest	Poletimber Medium	6.8	56	51-80	Younger red maple stand under some old, remnant WP. Clumpy red maple.
72	4113 - R.Maple, Conifer	Poletimber Medium	4.5	56	Unspecified	Semi-open stand.
73	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	7.4	51	1-50	Clumpy red maple. Not as much WP remnants as adjacent stand 72. Large spruce within stand.
75	4140 - Other Upland Deciduous	Poletimber Well	4.7	86	Unspecified	
76	42110 - Planted Red Pine	Poletimber Well	102.9	56	141-170	Some areas kind of thin BA; some areas of nice plantation BA. Scattered RP and WP remnant logs. Occasional WB and oak. Some areas heavier to jack pine. Future management should mimic natural pine.
77	4140 - Other Upland Deciduous	Poletimber Medium	36.0	86	Unspecified	Rolling to steep ridges. WB is dying out. May be difficult to access parts of this stand.
81	4112 - Maple, Beech, Cherry Association	Poletimber Well	30.3	86	81-110	Low quality red maple. Rolling terrain with some steep knobs. Adjacent to Michigan Nature Association lands.
82	4115 - Y.Birch, Hemlock NH	Poletimber Medium	26.7	86	51-80	More diverse stand following drainage. Cut heavy in the late 1970's.
83	4112 - Maple, Beech, Cherry Association	Sawtimber Well	93.7	86	81-110	Nice looking hardwood stand. Understory is tall enough to see under. Large YB left. Occasional spruce, balsam and hemlock. Nice YB regen along the roads. Some areas of lower ground within stand. Adjacent to the Jinny Palms Nature Preserve. Last thinned in the late 1970's. Notes from 1995 indicate that stand was cut on a 16" stump in 1980. Somewhat lower ground in NW corner.
85	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	34.4	80	Unspecified	Variable stand with cedar, spruce, balsam, hemlock and associated red maple. Hemlock pocket on southern end. Pockets of tag alder.
87	4115 - Y.Birch, Hemlock NH	Sawtimber Well	69.4	86	111-140	Mix of hemlock, red maple, yellow birch with white pine, balsam/spruce and paper birch. Old roads have grown in considerably. Scattered low pockets that hold water seasonally. Thinned in 1979 (#12-79A).
88	4119 - Mixed Northern Hardwoods	Sawtimber Well	9.9	86	81-110	Mix of red maple and yellow birch mainly. Poor quality trees. Thick maple understory. Some hard maple present. Thinned in 1979 (#12-79A). Adjacent to Jinny Palms Preserve. Old access roads are through the preserve and have grown in considerably.
89	4139 - Aspen, Mixed Deciduous	Sapling Well	39.8	15	Immature	Very diverse stand. Occasional JP sapling. Intermittent gully crosses NE corner. NW corner lies just north of snowmobile trail. Cut in 2001 (#007-97).

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Newberry Mgt. Unit

Report 8 – Forested Stands

Compartment: 54
Year of Entry: 2017

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
90	42110 - Planted Red Pine	Sawtimber Well	19.7	56	111-140	Variable density residual. Not enough to put up a small sale yet. Thinned in 2001 (#007-97), removing mostly red maple, birch, spruce and jack pine along with some red pine.
91	4319 - Mixed Upland Forest	Sapling Medium	59.9	17	Immature	Scattered residual RP from cutting. Regen is variable, both species and density, but adequate. 10'-20' tall. Cut in winter of 1998 (#007-97). Stand was never scarified after harvest.
92	42220 - Natural Jack Pine	Poletimber Medium	16.1	51	Unspecified	Variable stand.
93	42210 - Natural Red Pine	Sawtimber Medium	16.4	86	1-50	Heavier residual of RP than adjacent cutting. Mostly part of West Pond Mix (#004-07), cut in 2009. Scarified in fall of 2009 (42-685). Regen check in 2013 showed 1963 trees/acre. Very eastern portion cut in 1993 (#032-89).
94	4310 - Pine, Oak Mix	Sawtimber Medium	19.4	86	51-80	Higher residual BA than stand to the south. Cut in 2009 (#004-07), scarified in fall 2009 (42-685).
95	4310 - Pine, Oak Mix	Sapling Well	15.7	23	Immature	More diverse than south of the road. Residual oak mainly on east half. Moderately steep ridge along road. Cut in 1993 (#032-89).



Stand	Cover Type	Acres	Managed Site	General Comments:
1	710 - Sand, Soil	66.6	Yes	Lake Superior shoreline. Stand changes with fluctuating water levels.
2	500 - Water	3.4	Yes	
5	622 - Lowland Shrub	1.1	Yes	
6	622 - Lowland Shrub	14.5	Yes	
7	622 - Lowland Shrub	3.4	Yes	
8	500 - Water	11.0	Yes	
9	500 - Water	3.1	Yes	
10	622 - Lowland Shrub	23.6	Yes	
12	622 - Lowland Shrub	2.4	Yes	
13	622 - Lowland Shrub	0.9	Yes	
14	622 - Lowland Shrub	5.0	Yes	
16	622 - Lowland Shrub	4.4	Yes	
17	500 - Water	7.3	Yes	Fluctuating water.
19	622 - Lowland Shrub	2.9	Yes	
20	622 - Lowland Shrub	102.4	Yes	Adjacent to Two Mile Lake, Weatherhogs Creek and Weatherhogs Lakes.
21	500 - Water	29.0	Yes	Two Mile Lake
22	622 - Lowland Shrub	12.6	Yes	Adjacent to Two Mile Lake and Michigan Nature Association property.
23	622 - Lowland Shrub	2.9	Yes	Island in middle of Two Mile Lake.



Stand	Cover Type	Acres	Managed Site	General Comments:
27	500 - Water	3.3	Yes	Weatherhogs Creek and associated water.
29	500 - Water	2.4	Yes	Weatherhogs Creek.
31	622 - Lowland Shrub	4.4	Yes	
33	622 - Lowland Shrub	11.8	Yes	
35	622 - Lowland Shrub	54.0	Yes	Contains some small ridges with trees scattered throughout stand. Below first beach bluff and adjacent to Weatherhogs Lakes.
36	500 - Water	4.1	Yes	
38	710 - Sand, Soil	14.3	Yes	High sand bluff along Lake Superior.
39	730 - Mud Flats	24.5	Yes	Low sand beach, eroding with weather and water action.
40	730 - Mud Flats	8.2	Yes	Low sand beach, eroding with weather and water action.
42	622 - Lowland Shrub	18.2	Yes	Lowland with some small ridges with trees.
43	500 - Water	23.8	Yes	Weatherhogs Lakes.
44	622 - Lowland Shrub	7.6	Yes	
46	622 - Lowland Shrub	4.4	Yes	
47	500 - Water	29.1	Yes	Weatherhogs Lakes.
49	629 - Mixed non-forested wetland	19.5	Yes	Lowland with scattered trees.
50	622 - Lowland Shrub	10.1	Yes	Lowland with scattered trees.
53	622 - Lowland Shrub	5.0	Yes	Lowland along Betsy River.
61	622 - Lowland Shrub	21.2	Yes	Along the Betsy River.



Stand	Cover Type	Acres	Managed Site	General Comments:
74	500 - Water	3.2	Yes	Fluctuating water table.
78	330 - Low-Density Trees	1.7	Yes	Stand is saddled between two sand ridges. Opening is being encroached by trees. Variety of species: RM, Fb, Fs, WB, JP and WP.
79	330 - Low-Density Trees	1.6	Yes	Stand is saddled between two sand ridges. Opening is being encroached by trees. Variety of species: RM, Fb, Fs, WB, JP and WP.
80	330 - Low-Density Trees	2.2	Yes	Stand is saddled between two sand ridges. Opening is being encroached by trees. Variety of species: RM, Fb, Fs, WB, JP and WP.