



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 72

Entry Year 2016

Acreage: 1,095

County Chippewa

Management Area: Tahquamenon Basin Wetlands

Revision Date: 07/25/2014

Stand Examiner: Amy Douglass

Legal Description:

T46N, R7W, Sections 31-33

Identified Planning Goals:

Maintain or enhance the forest health, productivity, and diversity of the area through proper management if access can be obtained. Emphasis for management in this compartment is on promoting wildlife habitat and recreational associated with the extensive winter deer yarding potential throughout the area. Timber management is a secondary goal within the compartment. Removal of invasive species (phragmites) should be a priority.

Soil and topography:

The majority of the compartment has very poorly drained to poorly drained soils of Markey and Carbondale mucks, with small inclusions of Ermatinger silt loam and Kinross-Wainola complex. The only upland is confined to a narrow ridge comprised of Rousseau fine sand.

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

There is mixed ownership within and surrounding the compartment. Forty to 500+ acres of different private parcels are in and around the compartment. Some parcels have camps on them, while others are vacant. Some are actively managed and others not. Access is the primary issue. An abandoned railroad grade gives thought of earlier uses.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The whole compartment lies within a deer obligate winter range.

Watershed and Fisheries Considerations:

Fisheries Values: Moderate

Fisheries Concerns: The Hendrie River and Basnau Creek flow through this compartment. The Hendrie River in this section is warm and does not provide much as a fishery unless anglers access from the Tahquamenon River (downstream). Basnau Creek, a designated trout stream and identified as a cold transitional stream by the Valley Segment Classification, supports a natural brook trout population. Any treatments in stands near the streams need to adhere to a minimum buffer of 100 feet. The only main aspen component in this compartment is in stand 12, but the stand does not pose any issues because of the distance to the river (>300 feet).

Wildlife Habitat Considerations:

Compartment 72 is in the Seney Sand Lake Plain ecological sub-subsection. It is also located along the northern edge of the historic Hendrie Deer yard and supports high numbers of deer during stressful winter periods. The compartment is within the Tahquamenon River Basin Wetlands Management Area and moose, piping plover, red crossbill, and spruce grouse are featured species. The compartment is comprised almost entirely of swamp conifers and cedar stands with a few swamp aspen, and balsam poplar stands. Current day vegetation patterns mimic those recorded during pre-settlement times.

Conifer canopies should not be disturbed in this compartment to maintain the wildlife values of those stands. Hemlock and cedar should not be harvested to retain thermal cover within stands. Forested corridors should be maintained to facilitate ease of movement between upland and lowland areas. Buffer zones along streams and rivers should be sustained to preserve travel corridors and wetland wildlife values and habitats. Wildlife objectives will be achieved by the retention of conifers, hard and soft mast producing trees, wildlife den and nest trees and snags in hardwoods stands and the preservation of conifer components and cedar thickets in aspen stands. White-tailed deer, moose, gray wolf, fisher, and

snowshoe hare are noteworthy wildlife species using this compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of peat and muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Utica Shale and Big Hill Dolomite subcrop below the glacial drift. The Big Hill could be used for stone. A gravel pit is located in two miles to the south, but potential appears limited. There is no economic oil and gas production in the UP.

Vehicle Access:

There is only one point of entry by vehicle and that is from the S. Hendrie River Road. The road comes off M-28 through state land, through Heartwood Forestland Fund (TFG) land and is gated at the private 80 before hitting the old railroad grade that transects the compartment. The road crosses the old grade, a corner of state land, and is gated again at the private 40 where it ends near the river. The old grade is accessed by ORV's, but must cross the McLeod Ditch and/or Hendrie River via the old bridges, which are barely passable. The timbers still remain, but the decking is hit and miss.

Survey Needs:

The only harvests recommended (within section 32) would need surveys to be put up. They are limited by private access also, but would be too small for cutting if a survey was not done.

Recreational Facilities and Opportunities:

There are no established recreational facilities within the compartment. Recreational opportunities would include hunting, fishing, and wildlife viewing.

Fire Protection:

Fires should remain small except in periods of increased drought conditions. Access will be tough with conventional equipment because of soft ground and bridge problems on railroad grade. Modified suppression tactics may be needed. Risk to private property will be low.

Additional Compartment Information:

Possible liability hazard with the condition of the bridges over the Hendrie River.

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: 072
 T46N R07W Sections 31-33
 County: Chippewa
 Unit: Newberry
 Management Area: Tahquamenon Basin Wetlands
 YOE: 2016
 Acres: 1,095 GIS Calculated
 Examiner: Amy Douglass
 Map Revised: 08/20/2014
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- Gate
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Railroads
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Pesticide
- Treatments w/ Site Condition

Forest Stands

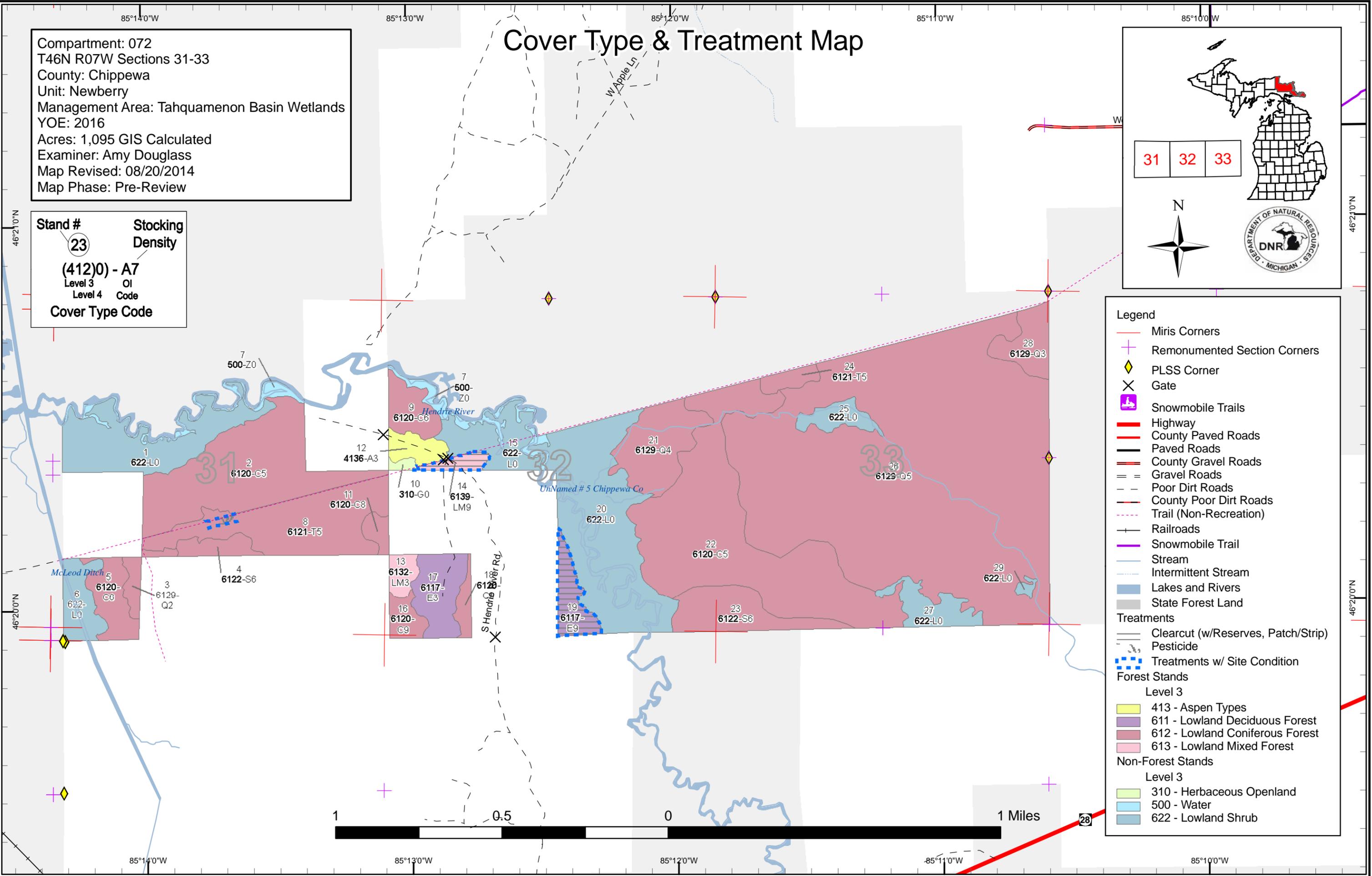
Level 3

- 413 - Aspen Types
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

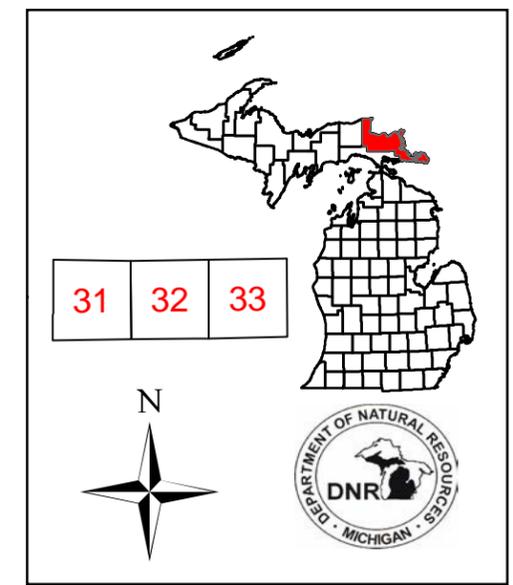
Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub

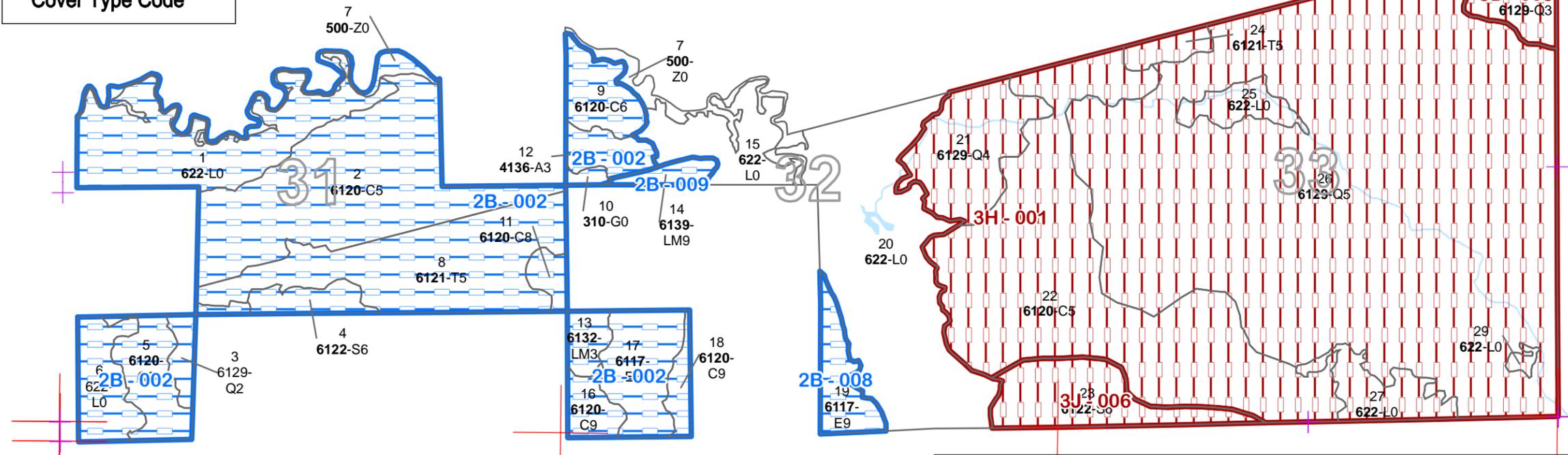


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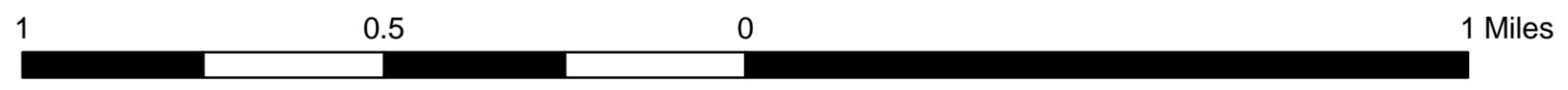
Special Conservation Areas & Site Conditions Map



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



Legend	
— Miris Corners	Site Condition Type
+ Remonumented Section Corners	Available Factors W/ Constraints
□ Stand Boundaries	2B: Unknown if access through adjacent landowner(s) is possible
□ Site Condition Available	Unavailable Factors
▒ Available w/ Constraints (Factor - Number)	3H: Deer Wintering Areas
▒ Unavailable (Factor - Number)	3J: Water quality / BMPs (stream, river, or lake)
	5D: Unproductive Forest Land
	Dedicated Special Conservation Areas
	— Cold Water Streams
	▒ Cold Water Lakes



85°14'0"W 85°13'0"W 85°12'0"W 85°11'0"W 85°10'0"W

46°21'0"N

46°20'0"N

46°21'0"N

46°20'0"N

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	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Cedar	0	0	0	0	0	0	0	5	0	93	157	0	14	0	268
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Conifers	0	7	0	0	0	16	0	0	32	395	0	0	0	0	449
Lowland Deciduous	0	21	0	0	0	0	0	0	13	0	0	0	0	0	34
Lowland Mixed Forest	0	6	0	0	0	0	0	0	5	0	0	0	0	0	11
Lowland Shrub	203	0	0	0	0	0	0	0	0	0	0	0	0	0	203
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	28	8	0	0	0	0	36
Tamarack	0	0	0	0	0	0	6	58	0	0	0	0	0	0	64
Water	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Total	224	42	0	0	0	16	6	63	78	496	157	0	14	0	1095



Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2016

Compartment 072
Total Compartment Acres: 1,095

Acres by Treatment Type

Commercial Harvest - 18	Tree Planting - 0	Other - 1
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>
Lowland Deciduous Forest	13	0	0	0	0	0	13
Lowland Mixed Forest	5	0	0	0	0	0	5
Total	18	0	0	0	0	0	18



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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 t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	42072014-Cut	4.9	6139 - Mixed Lowland Forest	High Density Log	86		Harvest	Clearcut	6139 - Mixed Lowland Forest	Cmpt. Review Proposal
<u>Prescription</u> Cut all trees except white pine where present. No retention due to small, narrow size. May have some trees left along river corridor.										
<u>Specs:</u>										
<u>Other</u> <u>Comment:</u> Access only through private land to the south. Lines against private would be needed. If no survey, then remove treatment as it is too small otherwise.										
<u>Next</u> <u>Steps:</u> Regeneration check per Work Instructions. Acceptable regeneration includes aspen/balm, birch, balsam, spruce, tamarack and cedar.										
<u>Proposed</u> <u>Start Date:</u> 10/01/2015										
<u>Limiting Factor</u> 2B: Unknown if access through adjacent landowner(s) is possible										
19	42072019-Cut	13.1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	86		Harvest	Clearcut	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<u>Prescription</u> Cut all trees except white pine. No retention due to small, narrow size of stand.										
<u>Specs:</u>										
<u>Other</u> <u>Comment:</u> Access is through either TFG or other private (beagle club). Lines against private boundary would need to be determined. If no survey, then remove treatment.										
<u>Next</u> <u>Steps:</u> Regeneration survey per Work Instructions. Acceptable regeneration includes aspen/balm, birch, spruce, fir, cedar and white pine.										
<u>Proposed</u> <u>Start Date:</u> 10/01/2015										
<u>Limiting Factor</u> 2B: Unknown if access through adjacent landowner(s) is possible										
8	42072008- Spray	1.2	6121 - Tamarack	Medium Density Pole	78		Pesticide	Hand Sprayer	6121 - Tamarack	Cmpt. Review Proposal
<u>Prescription</u> Spray for phragmites control. Size is estimate. Evaluate before treatment.										
<u>Specs:</u>										
<u>Other</u> <u>Comment:</u> Access through private along old RR grade.										
<u>Next</u> <u>Steps:</u> Monitor for success and spray or pull as needed.										
<u>Proposed</u> <u>Start Date:</u> 10/24/2014										
<u>Limiting Factor</u> 2B: Unknown if access through adjacent landowner(s) is possible										
Total Treatment Acreage Proposed:		19.2								

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment 072
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	5D	3J	3H	2B
	Available	Not Available					
9	9		Aspen				9
268	127	140	Cedar			140	127
449	7	443	Lowland Conifers	16		427	7
34	34		Lowland Deciduous				34
11	11		Lowland Mixed Forest				11
36	8	28	Lowland Spruce/Fir		28		8
64	58	6	Tamarack			6	58
871	254	617	Total Forested Acres	16	28	573	254
	29%	71%	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
001	Not Available	3H: Deer Wintering Areas	599	2B: Unknown if access through adjacent landowner(s) is possible			
Comments:							
002	Available	2B: Unknown if access through adjacent landowner(s) is possible	310				
Comments:							
005	Not Available	5D: Unproductive Forest Land	16	2B: Unknown if access through adjacent landowner(s) is possible			
Comments:							

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment 072
Year of Entry 2016

006	Not Available	3J: Water quality / BMPs (stream, river, or lake)	28	2B: Unknown if access through adjacent landowner(s) is possible
Comments: Stream runs through stand.				
008	Available	2B: Unknown if access through adjacent landowner(s) is possible	13	2I: Survey needed
Comments:				
009	Available	2B: Unknown if access through adjacent landowner(s) is possible	5	2I: Survey needed
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
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Comments				
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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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6120 - Lowland Cedar	Medium Density Pole	80.2	93		Includes narrow ridge of upland red pine/white pine (16" dbh RP - very tall!) with balsam understory along Hendrie River. Occasional white birch.
3	6129 - Mixed Coniferous Lowland Forest	Medium Density	6.5	17		Cut in 1997 with adjacent private property (Mead at the time). Sale #26-96-02. Two small pieces of spruce/tamarack. Some old blue line visible. Slightly different compositions of the two parcels. Spruce(45%)/tamarack(40%)/cedar(10%)/red maple(5%) on north piece. Tamarack(40%)/spruce(38%)/cedar(2%)/red maple(15%)/white birch(5%) on west piece.
4	6122 - Black Spruce	High Density Pole	8.1	98		Black spruce stand that was not finished harvested in 1997 with adjacent stand.
5	6120 - Lowland Cedar	High Density Pole	16.2	103		More diverse along eastern edge.
8	6121 - Tamarack	Medium Density Pole	58.1	78		Varying densities of cedar. More cedar to the west.
9	6120 - Lowland Cedar	High Density Pole	13.5	120		Occasional white pine. Southern edge of stand has some mature aspen/balm.
11	6120 - Lowland Cedar	Medium Density Log	4.7	78		
12	4136 - Aspen, Mixed Conifer	High Density Sapling	8.8	17		Upland/lowland stand. Scattered cedar left from harvest.
13	6132 - Mixed Lowland Forest with Cedar	High Density Sapling	6.2	17		Looks to be partially cut through, but no cutting records. Areas of sapling regen and areas of cedar with white birch and old, dying balm.
14	6139 - Mixed Lowland Forest	High Density Log	4.9	86		Some upland, some lowland. More of an aspen stand along portions of the private near road.
16	6120 - Lowland Cedar	High Density Log	7.7	96		
17	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	20.9	17		Cut in 1997 (Soo Line Spruce) with adjacent private lands (Mead at the time). Contains some semi-open areas along the trail road. Some upland included too.
18	6120 - Lowland Cedar	High Density Log	5.1	96		Large limby cedar mixed with some decent log/pole size cedar. Spruce throughout.
19	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	13.1	86		Upland/lowland stand.
21	6129 - Mixed Coniferous Lowland Forest	Low Density Pole	32.2	86		Wet, semi-open, lowland conifer stand. Small cedar with spruce and tamarack. Basnau Creek flows through stand.

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Newberry Mgt. Unit

Report 8 – Forested Stands

Compartment: 072
Year of Entry: 2016

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	6120 - Lowland Cedar	Medium Density Pole	140.4	106		
23	6122 - Black Spruce	High Density Pole	28.0	86		Black spruce, tamarack and cedar. Private land adjacent to the southeast had cut similar ground in 2012. Difficult access through private land, and follows stream corridor.
24	6121 - Tamarack	Medium Density Pole	6.0	65		Tamarack dead and dying; bark slough and beetle channels. Nice cedar sapling understory.
26	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	394.8	97		Some dead tamarack. Variable stand: cedar/tamarack to tamarack/cedar; all with black spruce. Basnau Creek flows through stand. Comments from 1993 mention there were some deer cuttings (strips and patches) from the early 1980's.
28	6129 - Mixed Coniferous Lowland Forest	High Density Sapling	15.6	56		Treed bog.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	622 - Lowland Shrub	47.1	No	Unspecified	Hendrie River floodplain.
6	622 - Lowland Shrub	15.7	No	Unspecified	McCleod Ditch and associated floodplain.
7	50 - Water	19.3	No	Unspecified	Hendrie River.
10	310 - Herbaceous Openland	1.7	Yes	Low	Old field being maintained by private landowners.
15	622 - Lowland Shrub	22.7	No	Unspecified	Hendrie River floodplain.
20	622 - Lowland Shrub	91.4	No	Unspecified	Hendrie River floodplain. Some limby old black ash in NE corner of the stand along the old grade.
25	622 - Lowland Shrub	9.3	No	Unspecified	Along Basnau Creek. Photos appear to show possible dead (flooded) timber, as well as tag alder along creek.
27	622 - Lowland Shrub	15.0	No	Unspecified	Some scattered timber.
29	622 - Lowland Shrub	1.5	No	Unspecified	Low area along Basnau Creek.