



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 42005

Entry Year 2023

Acreage: 2,471

County Luce

Management Area: Deer Park

Revision Date: 2021-12-29

Stand Examiner: Jacob Kriehn

Legal Description:

T49N-R12W Sections 1-2 & 10-15

Identified Planning Goals:

Vegetative management for the Deer Park Management Area will emphasize balancing the age classes of jack pine and red pine, and provide various timber products. Management will maintain or enhance wildlife habitat.

Soil and topography:

This compartment is a mix of Histols, Aquents, Spot-Finch Complex, Croswell-Spot Complex, Dawson, Greenwood, Loxley, Carbondale, Lupton, Tawas, and Deer Park Sand. The compartment is mostly upland and fairly level. It has a gentle downward grade into lowland the Blind Sucker Flooding and the Blind Sucker River.

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

This compartment is made up of solid state ownership with no private inholdings. The compartment includes the western reaches of the Blind Sucker Flooding which is designated as a State Wildlife Flooding. Land Use in and around the compartment is generally low with recreational activities being the main use of the area. These activities include fishing, waterfowl hunting, deer hunting, trapping, canoeing and kayaking, snowmobiling, ORV riding and berry picking.

Unique Natural Features:

Michigan Natural Features Inventory (MNFI) notes numerous communities dry northern forest, dry-mesic northern forest, mesic northern forest, bog, muskeg, rich conifer swamp, hardwood-conifer swamp, and patterned fen. MNFI also lists potential for osprey, eagle, merlin, goshawk, great blue heron rookery, loon, Blanding's turtle, marsh birds including, yellow rail, American bittern, least bittern, marsh wren, and common moorhen. Potential for calypso, round-leaved orchid, ram's head lady's slipper, and limestone oak fern. Potential for pine-drops, auricled twayblade orchid, American shoregrass, moor rush, paniced srew-stem, Hill's pondweed, alternate-leaved water-milfoil, and autumnal water star-wort.

Archeological, Historical, and Cultural Features:

None listed at this time.

Special Management Designations or Considerations:

The Blind Sucker Flooding is a designated Wildlife Flooding. Normal BMP guidelines will be followed as well as any special considerations that may be defined in the Master Plan for the Operation and Maintenance for the Blind Sucker Wildlife Flooding.

Watershed and Fisheries Considerations:

This compartment contains Blind Sucker Flooding, Brucker Lake, and Keopfgen Lake. We have no file for Keopfgen Lake in the center of this compartment. The Brucker Lake fishery is comprised of stunted yellow perch, small pumpkinseed sunfish, golden shiner, and central mudminnows. The control structure for Blind Sucker Flooding is maintained by Wildlife Division. The Blind Sucker Flooding fishery is a premier trophy northern pike fishery. Any treatments near the riparian zones for these waterbodies should buffer 100 ft plus 5 ft per 1% increase in slope.

Wildlife Habitat Considerations:

Compartment 5 lies in far northwestern Luce county and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection and is in the Deer Park Management Area and Kirtland's warbler, red crossbill and American marten are featured species. The northern edge of the compartment lies along the Dead Sucker river and the southern edge lies along the Blind Sucker river and the Blind Sucker Flooding. Bald eagles and osprey have active and historic nests along the flooding in several places. The compartment is largely dominated by pine types. Jack pine is scattered throughout the central portion of the compartment while mixed conifer, lowland conifer and lowland types border the southern portions.

Wildlife objectives will be achieved by retaining any hard mast producing species in harvested pine stands and super canopy white pine for eagle nest trees and bear refuge trees. Hemlock will be retained in stands for species and structural

diversity and to provide warbler nesting habitat and bear refuge trees. Scattered white pine, in addition to retention pockets of pine, will provide habitat needs of red crossbill, a featured species in this compartment. Wildlife species potentially using this compartment include white-tailed deer, wolves, coyotes, black bear, fisher, marten, red crossbills and bald eagles.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial oil & gas production in this part of the state, and there is no known potential for metallic minerals in this area. The nearest active sand/gravel pit is roughly eight miles away, and potential for non-metallic mineral development within the compartment appears to be minimal. No current mineral leasing activity exists in the area. The State does not own all mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

Vehicle access to this compartment is limited. The only access road is a two track on the West side that comes off County Road 416. The rest of the compartment is blocked by water. The main road into the compartment has a steep section that could be difficult for logging trucks to get in and out on. There are several two tracks that transect the compartment and provide access within the compartment.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

Recreational Opportunities consist of fishing, hunting, and wildlife viewing. There are two State Forest Campgrounds located on the Blind Sucker Flooding and each have a boat launch. The Blind Sucker Pathway is located along the northern boundary of the compartment. Country Road 416 is used as a snowmobile trail in the winter.

Fire Protection:

Wildfire response for this compartment is covered by the Seney Field Office. It is adjacent to the Two Hearted Zone Dispatch area. There is large fire potential in the continuous pine fuel types. Wildfire response times would be long in this area due to only one road leading into the compartment.

Additional Compartment Information:

None

The following reports from the Inventory are attached:

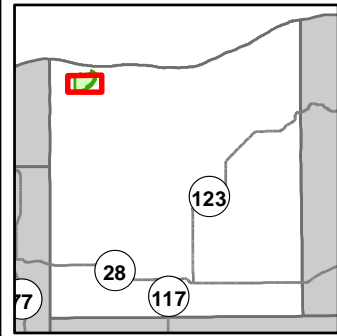
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

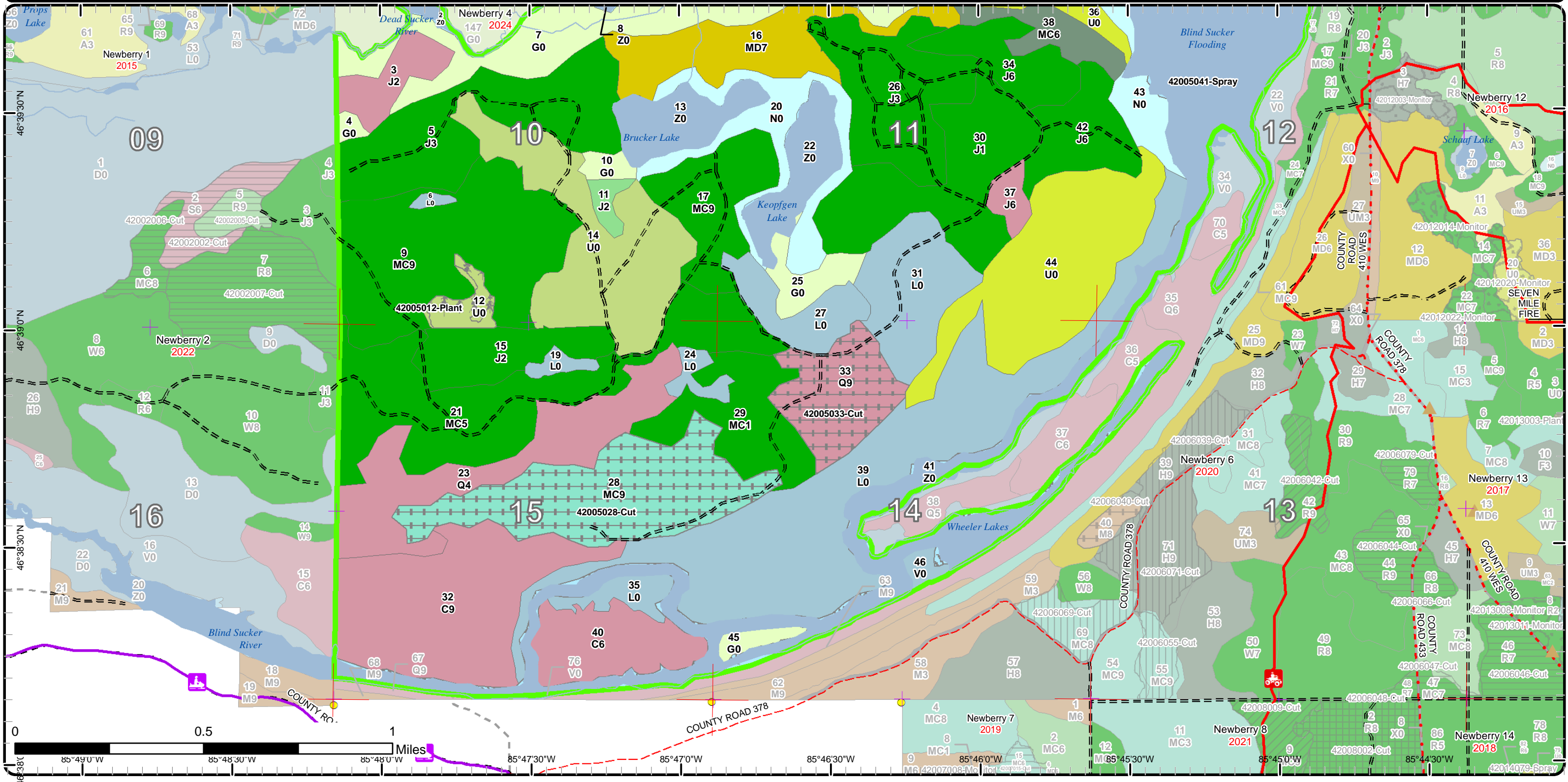
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 5
 T49N, R12W, Sec. 1-3, 10-15
 County: Luce
 Unit: Newberry
 Mgmt Area: Deer Park
 YOE: 2023
 Acres: 2471.3 GIS Calculated
 Examiner: Jacob Kriehn
 Map Revised: 1/7/2022
 Map Phase: Post-Review

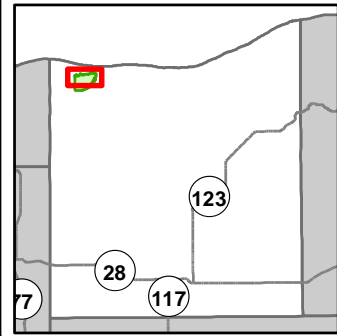


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- 🚙 ORV Trails
- 🚙 Snowmobile Trails
- Designated ATV
- Designated Snowmobile Trails
- ▲ Berms
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Pesticide
- Planting (tree species)
- Harvest, Overstory Removal
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

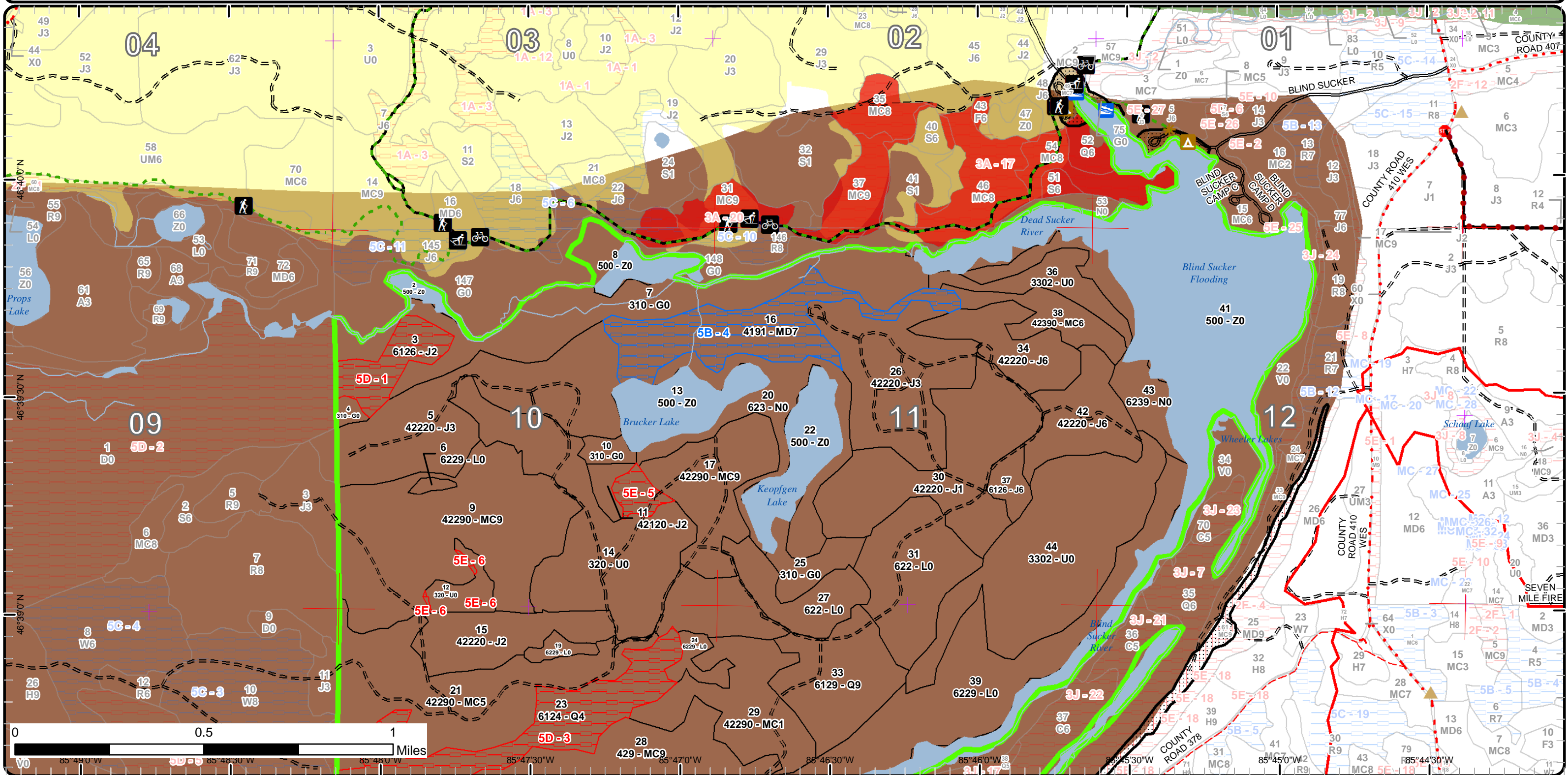


Special Conservation Areas

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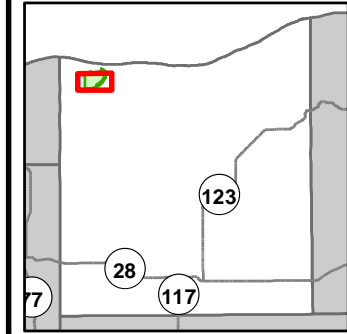


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- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Hiking Trails
- Bike Trails
- Ski Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Designated Multi-Use Trails
- Designated ATV
- Toilet
- Berms
- Boating Access Site
- Campground
- Sign
- Trailhead
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5D: Unproductive Forest Land
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Ecological Reference Areas
- Critical Dunes
- Critical Coastal Habitat (Piping Plover)
- Cold Water Streams
- Cold Water Lakes
- Wildlife Management Areas
- State Forest Campground
- Other SCA (No Category Assigned)

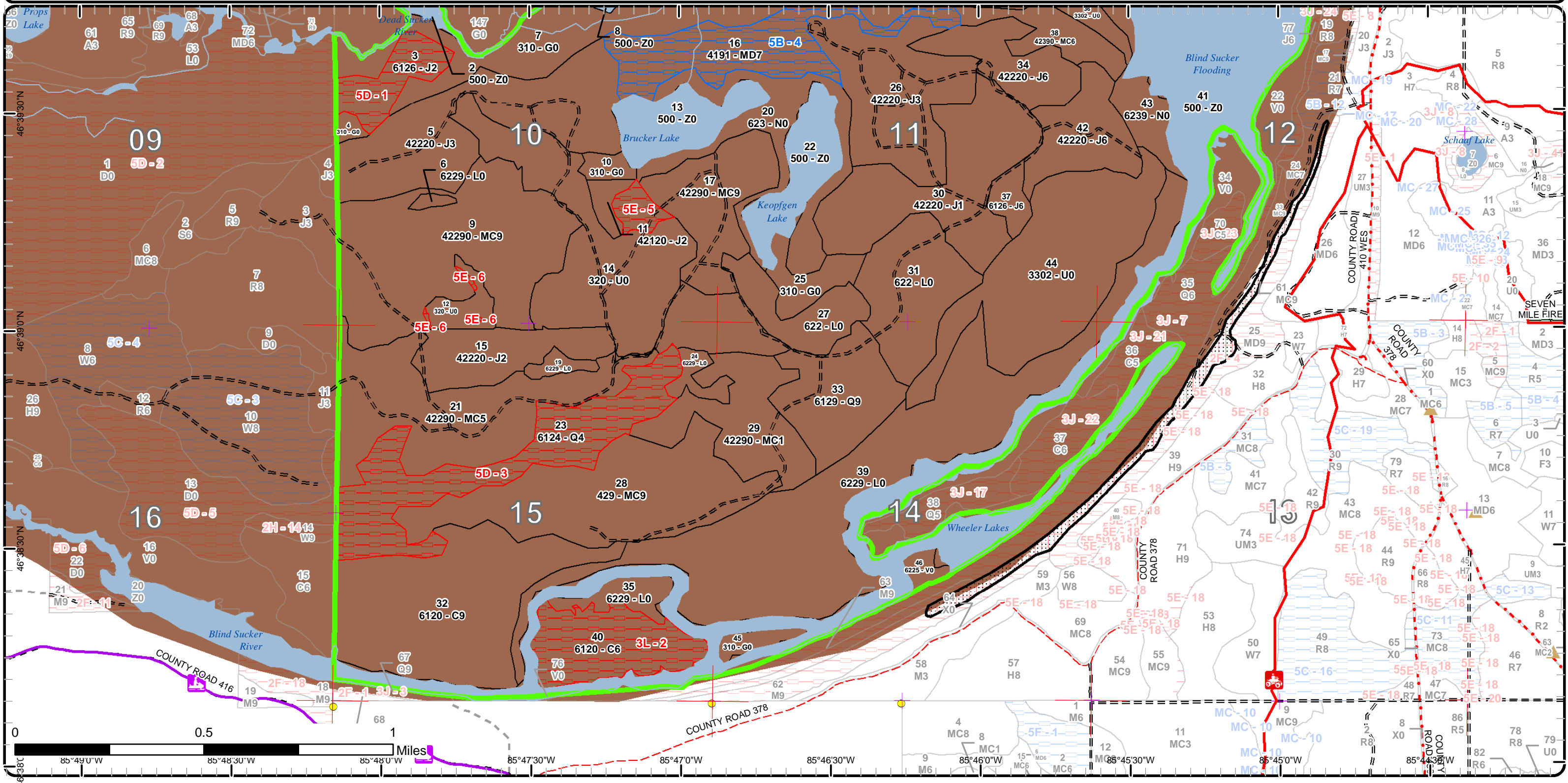


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Report 1 – Total Acres by Cover Type and Age Class

Newberry Mgt. Unit
Jacob Kriehn : Examiner

Compartment 5

Year of Entry 2023



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
Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Cedar	0	0	0	0	0	0	0	0	0	47	0	123	0	0	0	0	0	0	170
Herbaceous Openland	134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134
Jack Pine	0	0	166	202	37	0	0	23	0	0	0	0	0	0	0	0	0	0	427
Low-Density Trees	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136
Lowland Conifers	0	0	0	0	0	0	86	0	0	50	0	0	0	0	0	0	0	0	136
Lowland Shrub	316	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	316
Marsh	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	64
Natural Mixed Pines	0	0	53	0	0	50	0	128	0	99	0	0	0	0	0	0	0	0	330
Upland Conifers	0	0	0	0	0	0	23	0	0	0	0	0	0	0	108	0	0	0	131
Upland Shrub	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113
Water	412	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	412
Total	1214	0	219	202	37	50	109	151	0	196	0	187	0	0	108	0	0	0	2471



Report 2 – Treatment Summary

Newberry Mgt. Unit
Year of Entry: 2023

Compartment 5
Total Compartment Acres: 2,471

Acres of Harvest

Commercial Harvest - 159
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Lowland Conifers	0	0	0	0	0	50	0	0	0	50
Upland Conifers	0	0	0	0	0	108	0	0	0	108
Total	0	0	0	0	0	159	0	0	0	159

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	159	0	11	0	0	333	0	0	0	503
Next Step	0	0	333	0	0	333	180	0	0	847
Total	159	0	344	0	0	667	180	0	0	1350



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Approved Treatments:

12	42005012-Plant	10.8	320 - Upland Shrub	Nonstocked	2020		Planting	Interplant	42120 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> This stand failed its regen check, but it should fill in over time. If we have extra trees we can hand plant them here.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack Pine, some white pine might come in on its own.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
28	42005028-Cut	108.3	429 - Mixed Upland Conifers	Sawtimber Well	139	81-110	Harvest	Overstory Removal	4191 - Mixed Upland Deciduous with Conifer	Uneven-Aged	No
<p><u>Prescription</u> Overstory Removal with Retention. Retention pockets to be left scattered throughout the stand and large enough to not be blown over in the wind. Leave approximately 20% of the stand acreage in approximately 10-15 pockets. Target areas with thicker hemlock for retention. No single tree retention due to wind throw. When prepping the sale, evaluate along the road for possible retention area.</p> <p>Final treatment acreage may change due to low/wet spots..</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
33	42005033-Cut	50.3	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	80		Harvest	Overstory Removal	6129 - Mixed Coniferous Lowland Forest	Two-Aged	No
<p><u>Prescription</u> Overstory Removal with Retention. Retention pockets to be left scattered throughout the stand and large enough to not be blown over in the wind. Leave approximately 20% of the stand acreage in approximately 5-8 pockets. Target areas with thicker hemlock for retention. No single tree retention due to wind throw.</p> <p>Final treatment acreage may change due to low/wet spots.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Hemlock, white pine, yellow birch, jack pine, spruce</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
41 42005041-Spray	333.4	500 - Water	Nonstocked			Pesticide	Hand Application	621 - Floating Aquatic		No
<p><u>Prescription</u> spray phragmites, hand spray and occasionally aerial spray</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Pesticide, Hand Application; Planting, Initial Plant</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 11/28/2017</p>										

Total Treatment Acreage Proposed: **502.8**

Report 4 – Site Conditions

Newberry Mgt. Unit
Jacob Kriehn : Examiner

Compartment: 5
Year of Entry: 2023

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5B	3L	5D	5E
		With Condition	Not Available					
6	6	0	0	Bog				
170	123	0	47	Cedar		47		
134	134	0	0	Herbaceous Openland				
427	404	0	23	Jack Pine			23	
136	136	0	0	Low-Density Trees				
136	50	0	86	Lowland Conifers			86	
316	316	0	0	Lowland Shrub				
97	97	0	0	Marsh				
63	0	63	0	Mixed Upland Deciduous	63			
330	330	0	0	Natural Mixed Pines				
131	131	0	0	Upland Conifers				
113	104	0	9	Upland Shrub				9
412	412	0	0	Water				
2,471	2,243	63	165	Total Forested Acres	63	47	109	9
	91%	3%	7%	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	5D: Unproductive Forest Land	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	3L: Other wildlife concerns	47	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Newberry Mgt. Unit
Jacob Kriehn : Examiner

Compartment: 5
Year of Entry: 2023

3	Unavailable	5D: Unproductive Forest Land	86	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5B: Maintain for regeneration purposes	64	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – 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
Comments				

**Report 6 – 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.
HCVA	Critical Dunes	Critical dune areas are established via the public legislative process, and governed by Part 353, Sand Dune Protection and Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the Michigan Department of Environmental Quality (DEQ). The current distribution of designated critical dunes is established by the DEQ 1989 Atlas of Critical Dune Areas.
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.
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	Managed Site	General Comments																																									
2	500 - Water	Nonstocked	5.6			No																																										
3	6126 - Lowland Jack Pine	Sapling Medium	22.8	60		N/A	This is a wet stand, especially closer to the open water on the north side. Unproductive ground for growing trees.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Black Spruce</td> <td>10</td> <td>Sapling</td> <td>3</td> <td></td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Sapling</td> <td>3</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>80</td> <td>Sapling/Pole</td> <td>4</td> <td>60</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Black Spruce	10	Sapling	3		White Pine	10	Sapling	3		Jack Pine	80	Sapling/Pole	4	60	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Labrador Tea</td> <td>Medium</td> <td>Variable</td> <td>Tall Shrub</td> </tr> <tr> <td>Leatherleaf</td> <td>Medium</td> <td>Variable</td> <td>Tall Shrub</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Labrador Tea	Medium	Variable	Tall Shrub	Leatherleaf	Medium	Variable	Tall Shrub													
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4	310 - Herbaceous Openland	Nonstocked	3.1			No																																										
5	42220 - Natural Jack Pine	Sapling Well	95.0	27	Immature	N/A	Good numbers of jack pine saplings coming in. There are some scattered red and white pine left from the previous timber sale.																																									
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Jack Pine	75	Sapling	3	27																																												
6	6229 - Mixed lowland shrub	Nonstocked	2.3			No	Low/wet spot within the surrounding stand.																																									
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7	310 - Herbaceous Openland	Nonstocked	97.2			No																																										
8	500 - Water	Nonstocked	20.2			No																																										
9	42290 - Natural Mixed Pine	Sawtimber Well	127.9	60	81-110	N/A	This stand is mixed and various sized trees. There are scattered overstory trees with saplings growing underneath and in some of the openings. Scattered open pockets and lowland pockets are present. Stand was harvested (shelterwood) as West Brucker Pine Sale #39-03-01. Sale was completed 10/2/2006. All paper birch and oak was left as residual. FTP 42-596 was canceled (per TMS) because the site was too old.																																									
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																					
11	42120 - Planted Jack Pine	Sapling Medium	6.4	19	51-80	N/A	Stand was planted as part of FTP C42-574. Machine planting completed 5/16/02, 500 JP/ac. Some of the non-jack pine trees are nice sized logs, some are various sizes from 12 feet and greater. The young jack pine looks really good. There are a few scattered openings in the stand.																																					
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12	320 - Upland Shrub	Nonstocked	11.9	2020		4222 - Natural Jack Pine	Cut in 2016 as part of Comp 5, #002-13. TCR 10/30/18. Scarified in 2017. FTP 42-832. There were two retention pockets left. There is only about 300-400 tpa in this stand. The Jack pine is coming in kind of "patchy". Higher trees per acre in some areas, lower in others. Also some white pine that are growing into the stand. The stand will fill in overtime, but if we have extra jack pine seedlings, we can hand plant them here.																																					
13	500 - Water	Nonstocked	30.1			No		There is a two track that leads up to the south side of the lake. It looks like people launch kayaks and canoes here.																																				
14	320 - Upland Shrub	Nonstocked	101.4	2020	Unspecified	4222 - Natural Jack Pine	This stand is filling in nicely with jack pine seedlings. There were some red and white pine seedlings scattered, but mostly jack pine. 2021 Regen count: 792 jack pine tpa. Slightly lower tpa in the northern portion. Cut as part of Comp 5, #002-13. TCR 10/30/18. Units were scarified in 2017 and finished in 2018 under FTP C42-832.																																					
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15	42220 - Natural Jack Pine	Sapling Medium	64.5	19	51-80	N/A	Cut as part of sale # 36-84-01. FTP 42-574; stand was mahine planted 500-600 tpa. Cultivation work was completed 5/16/02. Regen survey date: 5/12/2005: JP 510 t/ac. Scattered red pine, white pine, red maple, and scpruce. Some of the non-jack pine trees are nice sized logs, some are various sizes from 12 feet and greater. The young jack pine looks really good. There are a few scattered openings in the stand.																																					
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16	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	63.5	100	1-50	N/A	Stand was harvested as Brucker Lake Jack Pine Sale #020-03-01. Sale was completed 11/18/04. Red pine was left scattered throughout the stand. Scarification was completed 8/2/2006 FTP C42-590. West 1/2 of Unit 1 of the sale was NOT scarified due to heavy blowdown of timber and regeneration was noted (from 4" to 2' in heights, mixed spp). 2010 Regen count results: 608 RP/JP/WP trees/ac; All Spp. 960 t/ac.																																					
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17	42290 - Natural Mixed Pine	Sawtimber Well	50.0	41	81-110	N/A	<p>This is a very mixed stand. Some areas are dominated by pockets of jack pine, while others are dominated by red pine with white pine mixed in. There are also areas with black spruce. This stand should be ready for a harvest during the next inventory cycle.</p> <p>NE corner of stand was part of FTP 42-574 Regen survey date: 5/12/2005: JP 510 t/ac. Southern part of stand was part of FTP C42-416. Regen survey 5/13/2003 JP 1391 t/ac. Mix of WP, RP, & JP.</p>																																														
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19	6229 - Mixed lowland shrub	Nonstocked	5.1			No																																															
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20	623 - Emergent Wetland	Nonstocked	55.3			No																																															
21	42290 - Natural Mixed Pine	Poletimber Medium	98.8	88	81-110	N/A	<p>This stand has scattered low pockets and a wide range of heights. Stand has been cut in the past but it is hard to tell what the management objective was. It is now an uneven aged mixed pine stand. There is a range of BA throughout the stand.</p>																																														
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22	500 - Water	Nonstocked	22.2			No																																															
23	6124 - Lowland Spruce-Fir	Poletimber Poor	85.8	50		N/A	<p>There are some scattered jack pine throughout the stand that are dying. This is a very wet stand and it is unproductive.</p>																																														
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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26 42220 - Natural Jack Pine Sapling Well 74.0 23 Immature N/A

Cut as sale #32-93-01 in 1997. Stand was scarified in 11/98 under FTP C42-416. Stocking survey was completed 5/13/2003 - 1,391 trees per acre; mix of white, red, and jack pine. The Jack pine is looking good in this stand.

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Log	13	
Red Pine	5	Log	13	
Jack Pine	90	Sapling/Pole	4	23

27 622 - Lowland Shrub Nonstocked 28.3 2020 6122 - Black Spruce

Stand was clearcut part of Comp 5 Sale, #002-13, cut in summer/fall 2016. TCR 10/30/18. Some scattered spruce were left in attempt to convert stand to more spruce.

Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	Medium	< 5 feet	Sapling
Jack Pine	High	< 5 feet	Sapling
White Pine	Low	< 5 feet	Sapling
Balsam Fir	Low	< 5 feet	Sapling
Red Pine	Low	10 - 20 feet	Sapling

There is a lot of jack pine coming up in this stand. The regen in this stand is roughly 1,650 trees per acre. There is about 1,210 tpa jack pine, 330 tpa spruce, 55 tpa white pine, and 55 tpa balsam fir. The spruce is nicely distributed. The jack pine is coming "patchy" There are some very dense patches and other areas that are thinner. The jack pine should "self-thin" over time. There is also some spruce and red pine saplings that range from 5-15 feet tall. Overall this stand is growing in nicely. The northwest corner looks like it gets fairly wet.

The management objective listed for this stand is black spruce. It is currently dominated by jack pine, but that might change over time. The MO may need to be adjusted in the future depending on if the jack pine starts to out-compete the black spruce. Currently, the western part of the stand is more jack pine, but there is more spruce on the eastern side of the stand.

28 429 - Mixed Upland Conifers Sawtimber Well 108.3 139 81-110 N/A

Stand was harvested as Blind Sucker Mix Sale #38-03-01. Sale was complete 5/30/08. Some parts of the stand has good hemlock regeneration, other parts are dominated by white pine, a lot of red maple sprouting through the stand. FTP C42-595 was canceled in the spring (site too old to scarify) per TMS.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Sapling/Pole	4	13
Yellow Birch	5	Pole	5	
Balsam Fir	5	Pole	5	
Black Spruce	5	Pole	5	
White Pine	40	Log/XLog/Pole	18	
Hemlock	40	Log/XLog/Pole	16	139

Sub-Canopy Species	Density	Avg. Height	Size
Striped Maple	Low	Variable	Sapling
Hemlock	Low	Variable	Sapling
White Pine	Low	Variable	Sapling
Jack Pine	Low	Variable	Sapling
Red Pine	Low	Variable	Sapling
Black Spruce	Low	Variable	Sapling

Spring 2011 Regen counts:
Hem 236 t/a, WP 269 t/a, JP 285 t/a, RP 77 t/a, BS 153 t/a.

29 42290 - Natural Mixed Pine Sapling Poor 52.9 14 Immature N/A

Pockets of red pine scattered throughout the stand. A lot of windthrow present. Stand was cut as part of the Blind Sucker Mix Sale #38-03-01. Sale was completed 5/30/2008.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	5	Sapling	2	
Black Spruce	20	Sapling/Pole	2	
White Pine	5	Pole/Log	9	
Red Pine	25	Log/XLog	15	99
Jack Pine	45	Sapling	1	14

Spring 2011 Regen counts:
Hem 236 t/a, WP 269 t/a, JP 285 t/a, RP 77 t/a, BS 153 t/a.

There is good jack pine regen throughout this stand. There are some very wet areas in this stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																			
30	42220 - Natural Jack Pine	Sapling Poor	85.5	15	Immature	N/A	Stand was harvested as Keopfgen Lake Jack Pine Sale #019-03-01. Sale was completed 09/06/05. Stand was scarified under FTP C42-589. Scarification completed 7/31/2006. Jack pine is starting to regenerate.																																																			
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31	622 - Lowland Shrub	Nonstocked	54.9	2020	Unspecified	612 - Lowland Coniferous Forest	Sale was cut as Comp 5 #002-13 in fall of 2016 and 2017. TCR 10/30/18. This stand averages roughly 935 trees per acre. About 495 tpa spruce and 440 jack pine. There is also some scattered red maple, white pine, and balsam fir seedlings that did not show up in my survey. Overall, this stand is growing back very nicely. It looks like there are some low spots scattered throughout the stand, but they were dry at the time of this survey.																																																			
<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>Medium</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Balsam Fir</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>White Spruce</td> <td>Medium</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Jack Pine	Medium	< 5 feet	Sapling	Red Maple	Low	< 5 feet	Sapling	White Pine	Low	< 5 feet	Sapling	Balsam Fir	Low	< 5 feet	Sapling	White Spruce	Medium	< 5 feet	Sapling																																	
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32	6120 - Lowland Cedar	Sawtimber Well	122.6	100	Unspecified	N/A																																																				
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33	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	50.3	80		N/A	Stand was harvested as Blind Sucker Mix Sale #038-03-01. Unit 1. Sale was complete 5/30/2008. This stand is growing in nicely. There is a small pocket of jack pine along the road.																																																			
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34	42220 - Natural Jack Pine	Poletimber Well	33.1	29	Immature	N/A	Stand was cut as Sale #36-84-01.																																																			
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35	6229 - Mixed lowland shrub	Nonstocked	13.4			No																																																				
36	3302 - Low Density Conifer Trees	Nonstocked	21.8			No																																																				
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																									
37	6126 - Lowland Jack Pine	Poletimber Well	9.1	19	Immature	N/A	Stand was cut as part of Sale #36-84-01. FTP C42-574; machine planted 500 JP/ac. Planting complete 5/16/2002.																									
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Tamarack	3	Sapling/Pole	5																													
Jack Pine	91	Pole	5	19																												
38	42390 - Mixed Non-Pine Upland Conifers	Poletimber Well	22.6	50	1-50	N/A	Part of this stand was cut as Keopfgen Lake Jack Pine Sale #019-03-01, Sale was completed 09/06/05.																									
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39	6229 - Mixed lowland shrub	Nonstocked	203.7			No																										
40	6120 - Lowland Cedar	Poletimber Well	47.1	82	Unspecified	N/A	No Access.																									
41	500 - Water	Nonstocked	333.9			No	Blind Sucker Flooding																									
42	42220 - Natural Jack Pine	Poletimber Well	36.8	33	Immature	N/A	Cut as Sale #31-93-01. Treated under FTP C42-419 (jack pine scarification). FTP completed 6/1998, The southern part of the stand is a little wetter than the north. The ground is covered with a mix of leather leaf and fern.																									
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43	6239 - Mixed Emergent Wetland	Nonstocked	41.2			No	Grassy/Shrubby wetland area surrounding the flooding.																									
44	3302 - Low Density Conifer Trees	Nonstocked	114.4			No																										
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45	310 - Herbaceous Openland	Nonstocked	7.1		Unspecified	No	No Access.																									
46	6225 - Bog	Nonstocked	6.3			No																										