



**Newberry Forest Management Unit
Compartment Review Presentation
Compartment #75 Entry Year: 2013
Compartment Acreage: 4314 County: Chippewa**

Revision Date: 9/14/11

Stand Examiner: Keith Magnusson

Legal Description: T45N R7W, Sections 21-27, 35, 36

RMU (if applicable): This compartment is located within the Sage Truck Trail Management Area. For further description of this management unit go to the following web site:

http://www.midnr.com/publications/pdfs/forestslandwater/Ecosystem/EUP/final-MAsummaries/26_Sage_Truck_Trai_%20MA_summary.pdf

Management Goals: Maintain forest productivity, forest health, species diversity, and age class diversity through silvicultural and natural processes of the area through proper management. Timber and wildlife habitat are both important management goals within the compartment. Treatments prescribed will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat. Maintain and/or improve the integrity of the deeryard and surrounding area.

Soil and Topography: Topography consists of rolling upland areas to level wet lowland areas. The major soil type(s) associated with the lowland areas is Markey and Carbondale Mucks. Cover types supported on these muck soils include cedar, lowland swamp conifer, tamarack, and lowland black spruce. Narrow ridges of red pine and white pine are found throughout these cover types. The main upland soil type is Kalkaska sand, on which good quality northern hardwoods (maple) are found. In the “transition area” between the muck soils and the Kalkaska sand is an array of soils such as Allendale-Fibre complex, Wainola-Kinross-Rousseau complex, Croswell-Au Gres sands, Allendale-Croswell complex, Kinross-Au Gres complex and Biscuit very fine sandy loam. White pine, aspen, northern hardwoods and hemlock are cover types associated with this array of soils.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is mostly made up of a continuous block of State ownership. The compartment’s east boundary is the Hiawatha National Forest. There are some seasonal cabins along the east edge of the compartment boundary on the surrounding private parcels. There is one private hunting camp (Hendrie River Camp) on the private land parcel located in the northeast corner of the compartment boundary. Development within the compartment and surrounding area is limited due to the lowland nature of the area. Land use in the area is primarily deer hunting.

Unique, Natural Features: MNFI lists the potential for eagle, osprey, red-shouldered hawk, goshawk, great blue heron rookery. Potential wood turtle along creeks and rivers. Potential for incurvate emerald, frigga fritillary, freija fritillary and ebony boghaunter in open boggy areas. Potential for rare plants of rich mesic forests: Assiniboia sedge, showy orchis, ginseng, and goblin fern. Potential for English sundew, northern prostrate clubmoss, alga pondweed, Wiegand's sedge, sweet colts-foot, and autumnal water star-wort in bogs. Potential for Canada ricegrass and western moonwort in dry grassy openings.

Archeological, Historical, and Cultural Features: Nothing listed.

Special Management Designations or Considerations: A large area of the compartment south of the Hendrie River was designated as potential old growth in the last year of entry inventory. This was due to the lack of good access in this portion of the compartment. This will need to be discussed at the reviews of this inventory cycle as to keeping the designation or removing it.

Watershed and Fisheries Considerations:

Fisheries Values: Minimal

Fisheries Concerns: The Hendrie River in this compartment is a warm transitional river. The treatments along the river have limited access. If bridging the river is required then minimal to zero bank erosion would be required. Adjacent prescribed treatment areas should have appropriate BMP's followed at all times.

Wildlife Habitat Considerations: Compartment 75 lies in western Chippewa county and is in the Seney Sand Lake Plain ecological sub-subsection. The compartment lies within the Hendrie River Deer yard which supports high numbers of deer during stressful winter periods. The majority of the compartment is comprised of a mix of lowland and mixed conifer types and spruce stands with the northern portion containing a bit more upland types with mixed deciduous, aspen and northern hardwoods. Stands are very diverse in the compartment supporting many varied wildlife species. The railroad tracks border the western edge of the compartment and the Hendrie river runs through the central portion of the compartment serving as excellent wildlife travel corridors.

Harvests will be scheduled during winter to provide food sources for wintering deer which are a featured species in the compartment. Large diameter aspen and birch will occasionally be retained in aspen and upland harvested stands to provide food sources (ruffed grouse) and later snags and den trees for wildlife such as cavity nesting birds and coarse woody debris for marten (featured species) and small mammals. Large, super canopy white pine will be left as future eagle nest trees and as refuge trees for black bear (featured species).

Mineral Resource and Development Concerns and/or Restrictions:

Sections 21-27 and 35 & 36, T45N-R7W, Chippewa County

Surface sediments consist of peat and muck and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Ordovician Stonington Formation, Big Hill Dolomite and Queenston Shale subcrop below the glacial drift. The Stonington and Big Hill could be used for stone. Fiborn Quarry is located three miles to the south. A gravel pit is located three miles to the north and potential appears good on the high ground in the northeast. There is no economic oil and gas production in the UP.

Vehicle Access: Vehicle access into compartment is poor. The only vehicle access is in the northern portions of the compartment that come from a two-track leading off of the Basnau Road to the north. There are some roads in along the eastern edges of the compartment but little in the way of decent access leading into the compartment. The western edges of the compartment are bordered by railroad tracks and lowland areas with no drivable roads.

Survey Needs: If timber harvest treatments occur, some survey corners will need to be established in sections 24, 25 and 36 where they interface with other landowners (see inventory map for what corners will be needed).

Recreational Facilities and Opportunities: Recreational opportunities would primarily include hunting (deer and grouse) as well as some fishing.

Fire Protection: Possibility of large fire growth would be low because of the lowland cover types. The lack of access routes and soft ground will make initial attack with heavy equipment challenging or impossible. Modified suppression tactics may need to be used on fires in the compartment.

Additional Compartment Information:

- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
 - ◆ **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand boundaries, cover types, and numbers**
 - ◆ **Proposed treatments**
 - ◆ **Details on the road access system**

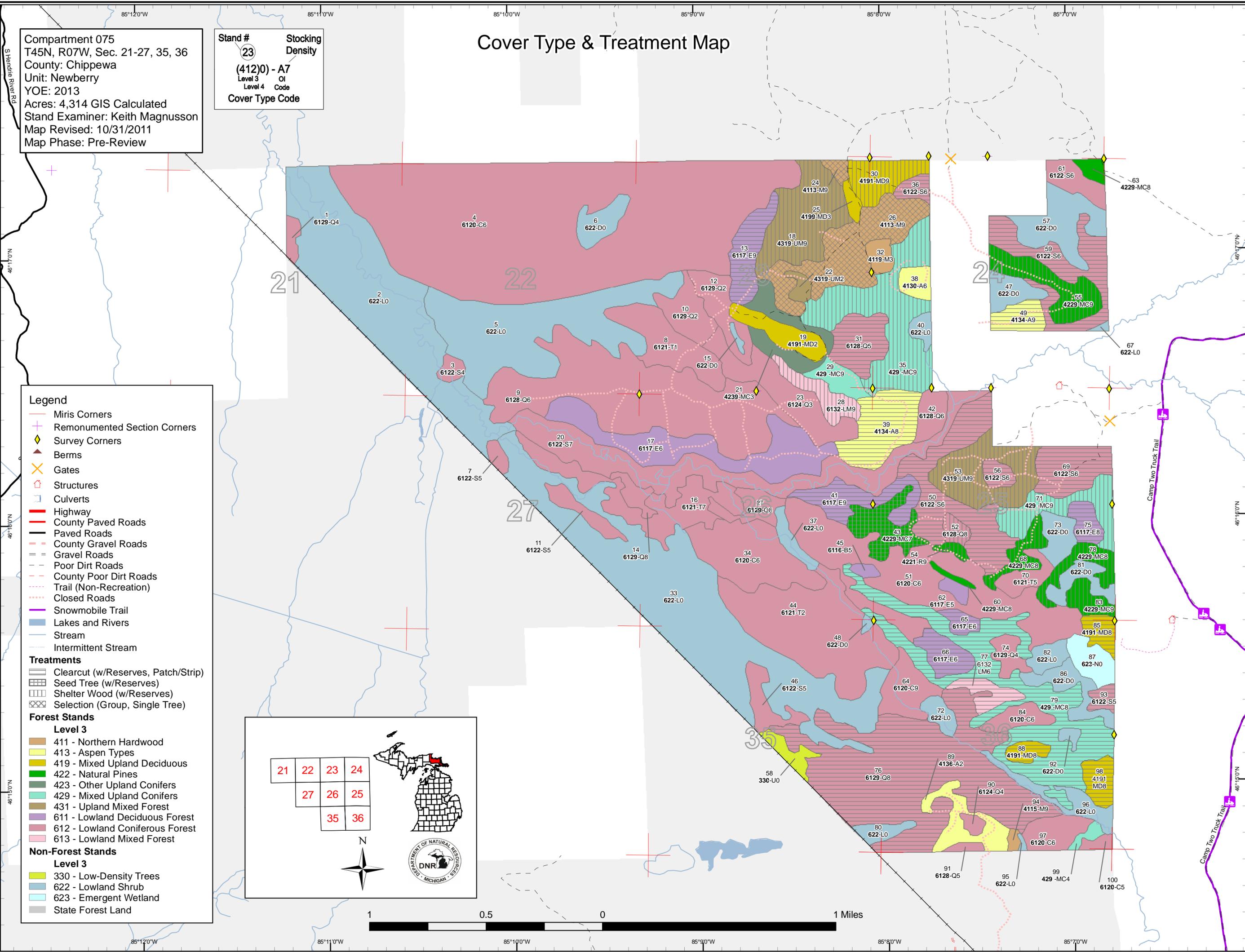
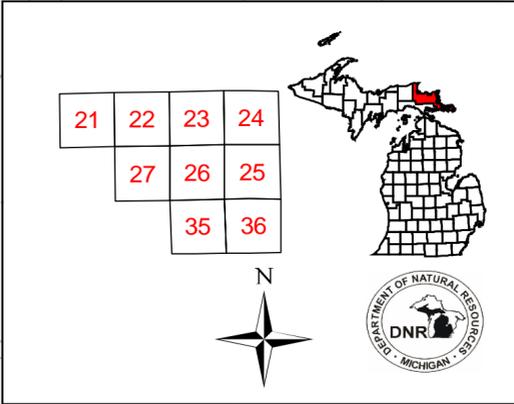
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Cover Type & Treatment Map

Compartment 075
 T45N, R07W, Sec. 21-27, 35, 36
 County: Chippewa
 Unit: Newberry
 YOY: 2013
 Acres: 4,314 GIS Calculated
 Stand Examiner: Keith Magnusson
 Map Revised: 10/31/2011
 Map Phase: Pre-Review

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

- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - ◆ Survey Corners
 - ▲ Berms
 - ✕ Gates
 - Structures
 - ▭ Culverts
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - Snowmobile Trail
 - Lakes and Rivers
 - Stream
 - Intermittent Stream
- Treatments**
- ▭ Clearcut (w/Reserves, Patch/Strip)
 - ▭ Seed Tree (w/Reserves)
 - ▭ Shelter Wood (w/Reserves)
 - ▭ Selection (Group, Single Tree)
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 330 - Low-Density Trees
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - State Forest Land

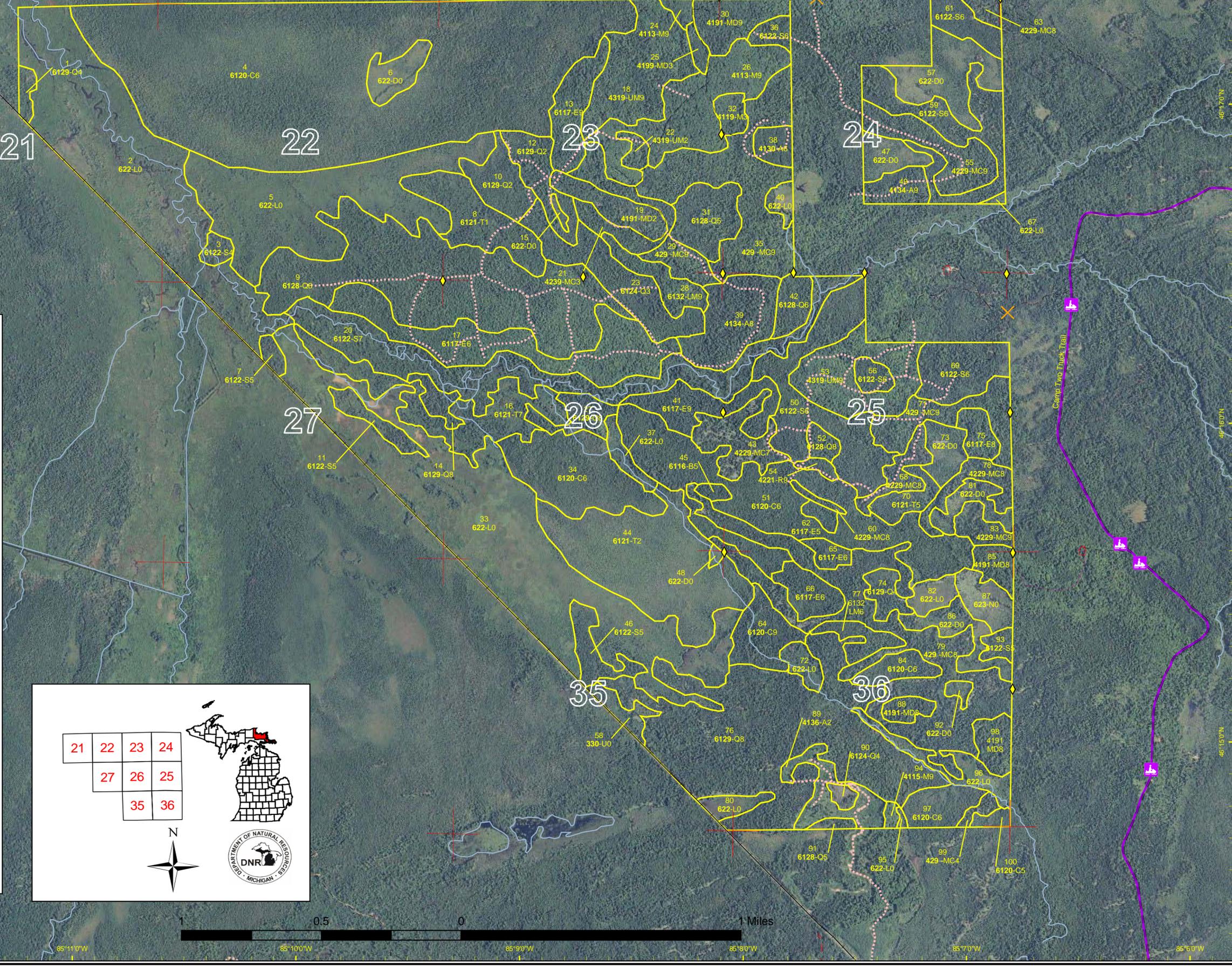
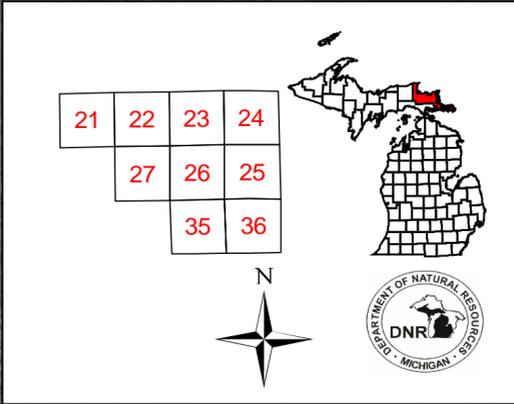


Stand Boundary Map

Compartment 075
 T45N, R07W, Sec. 21-27, 35, 36
 County: Chippewa
 Unit: Newberry
 YOE: 2013
 Acres: 4,314 GIS Calculated
 Stand Examiner: Keith Magnusson
 Map Revised: 10/31/2011
 Map Phase: Pre-Review

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

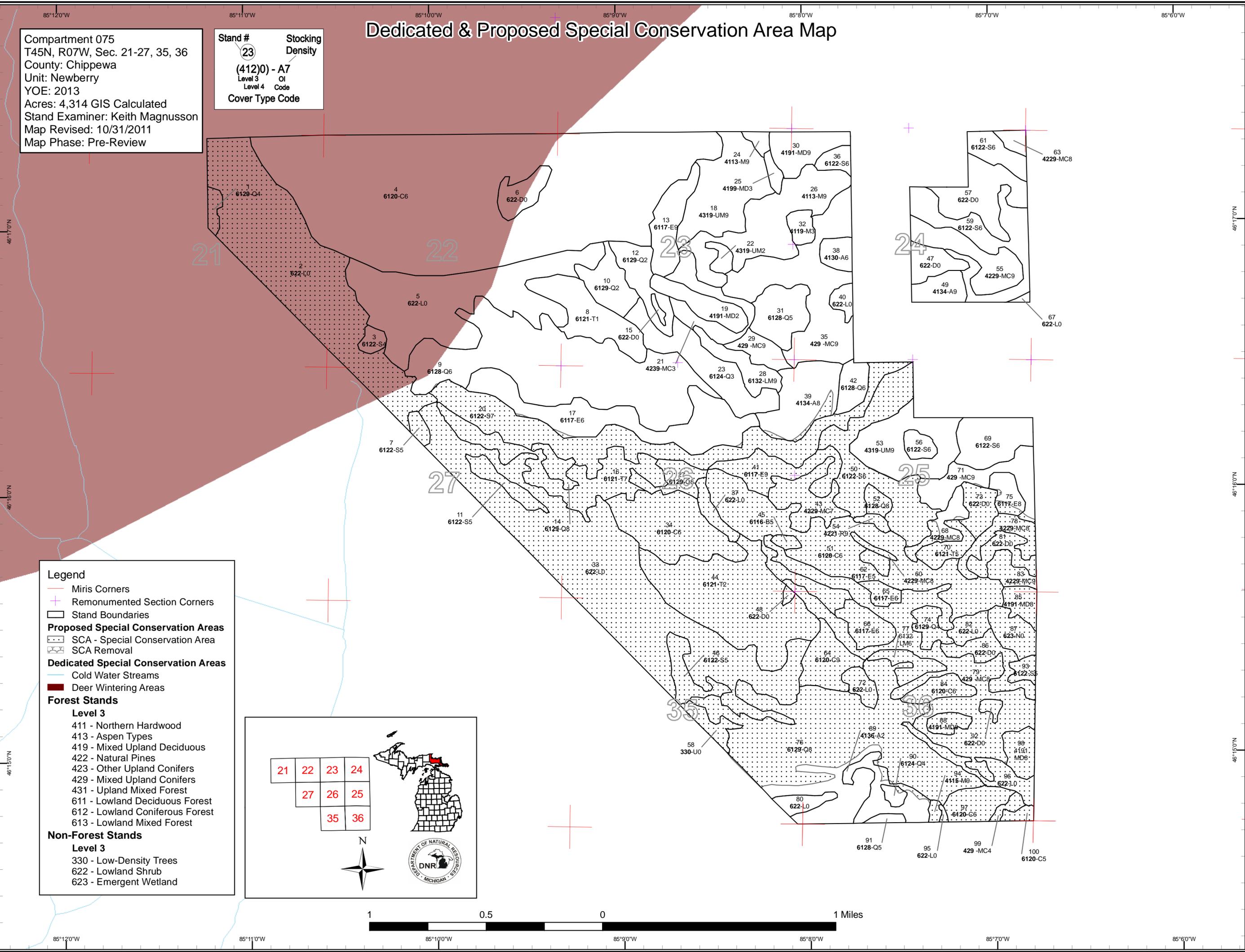
- Legend**
- Miris Corners
 - ◆ Survey Corners
 - ▲ Berms
 - ✕ Gates
 - ⊠ Structures
 - ⊕ Remonumented Section Corners
 - Railroads
 - Culverts
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 - Snowmobile Trail
 - Stand Boundaries
- Forest Stands**
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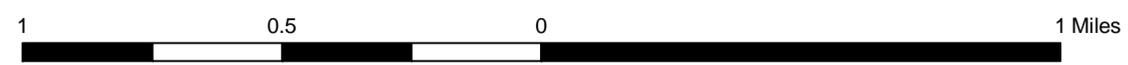
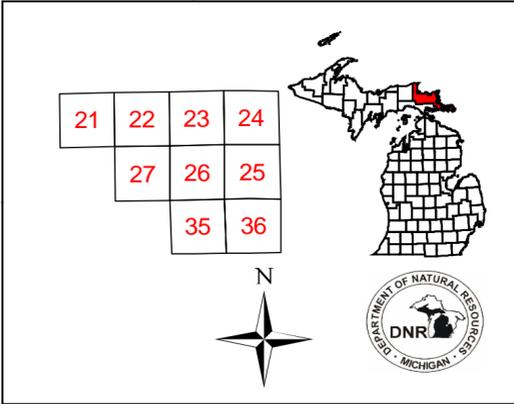
Dedicated & Proposed Special Conservation Area Map

Compartment 075
 T45N, R07W, Sec. 21-27, 35, 36
 County: Chippewa
 Unit: Newberry
 YOE: 2013
 Acres: 4,314 GIS Calculated
 Stand Examiner: Keith Magnusson
 Map Revised: 10/31/2011
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - Stand Boundaries
 - Proposed Special Conservation Areas**
 - ▨ SCA - Special Conservation Area
 - ▩ SCA Removal
 - Dedicated Special Conservation Areas**
 - Cold Water Streams
 - Deer Wintering Areas
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
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 - Level 3**
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85°12'0"W 85°11'0"W 85°10'0"W 85°9'0"W 85°8'0"W 85°7'0"W 85°6'0"W

46°17'0"N 46°16'0"N 46°15'0"N

85°12'0"W 85°11'0"W 85°10'0"W 85°9'0"W 85°8'0"W 85°7'0"W 85°6'0"W

Table 1 – Total Acres by Cover Type and Age Class

Keith Magnusson : Examiner



	Age Class														Total	
	Non-Forested	1-9	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	29	0	11	0	0	0	0	16	51	0	0	0	0	0	108
Cedar	0	0	0	0	0	0	0	0	0	174	27	665	0	0	0	865
Low-Density Trees	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Lowland Conifers	0	0	0	0	81	0	214	0	0	307	77	7	0	0	0	687
Lowland Deciduous	0	0	0	0	0	0	0	94	18	64	32	0	0	0	0	209
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	21	0	0	0	14	35
Lowland Shrub	760	0	0	0	0	0	0	0	0	0	0	0	0	0	0	760
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	126	63	114	84	0	0	6	393
Marsh	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Mixed Upland Deciduous	0	0	0	5	24	0	0	0	57	9	0	0	0	0	0	95
Natural Mixed Pines	0	0	0	0	0	0	0	0	7	50	35	39	0	0	0	130
Northern Hardwood	0	0	0	9	0	0	0	0	0	88	3	0	0	0	0	100
Paper Birch	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Red Pine	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
Tamarack	0	0	0	0	0	15	0	49	0	0	69	138	0	0	0	271
Treed Bog	146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146
Upland Conifers	0	0	0	0	30	0	0	0	0	123	188	0	0	0	0	341
Upland Mixed Forest	0	0	0	0	6	0	0	0	0	59	72	0	0	0	0	138
Total	936	29	0	26	141	15	214	143	228	988	641	933	0	0	20	4314



Table 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2013

Compartment 075
Total Compartment Acres: 4314

Acres by Treatment Type

Commercial Harvest - 1409	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	68	0	0	0	0	0	68
Lowland Conifers	287	0	0	7	0	0	294
Lowland Deciduous	109	0	0	0	0	0	109
Lowland Mixed Forest	14	0	0	21	0	0	35
Lowland Spruce/Fir	203	0	0	0	0	0	203
Mixed Upland Deciduous	37	0	0	28	0	0	65
Natural Mixed Pines	0	0	32	88	0	0	120
Northern Hardwood	0	88	0	0	0	0	88
Red Pine	0	0	0	4	0	0	4
Upland Conifers	150	0	0	141	0	0	291
Upland Mixed Forest	0	0	0	131	0	0	131
Total	868	88	32	421	0	0	1409



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	42075013-Cut	32.2	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	90	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal

Prescription Treat stand by removing maple, birch, aspen, spruce and balsam. Leave cedar retention pockets if they occur. In addition leave all hemlock and white pine where it does not impede logging operations. Leave some yellow birch (1 tree/ 5 acres). Harvest stand in winter months to provide food for deer using nearby deer yards. Stand would likely need to be treated in winter anyhow due to soil/terrain issues.

Other Comments:

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

18	42075018-Cut	71.9	4319 - Mixed Upland Forest	High Density Log	90	Harvest	Shelter Wood with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
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Prescription Shelterwood stand removing some maple, birch and white pine. Cut all aspen, spruce and balsam. Leave some aspen and/or white birch (1 tree /5 acres). In addition, leave some yellow birch (1 tree/ 5 acres). Leave all hemlock and cedar. Residual BA of stand should be approx. 60. Harvest stand in winter months to provide food for deer using nearby deer yards. Stand would likely need to be treated in winter anyhow due to soil/terrain issues.

Other Comments:

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regen.

24	42075024-Cut	5.0	4113 - R.Maple, Conifer	High Density Log	80	Harvest	Single Tree Selection	4113 - R.Maple, Conifer	Cmpt. Review Proposal
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Prescription Stand is a mix of log/pole sized timber. Selection cut recommended, remove some of the maple component as well as the conifer component to help establish regeneration. Residual BA should be approx. 70. Leave all hemlock. Harvest stand in winter months to provide food for deer using nearby deer yards.

Other Comments:

Next Steps: Monitor stand after harvest for regeneration. Regeneration of all species currently present would be acceptable.

26	42075026-Cut	82.8	4113 - R.Maple, Conifer	High Density Log	80	Harvest	Single Tree Selection	4113 - R.Maple, Conifer	Cmpt. Review Proposal
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Prescription Recommend a selection cut in stand to promote regen of all species currently present as well as enhancing what is here already. Leave all hemlock. In addition, leave some mature trees of all species present as well as some large white pine for supercanopy trees. Residual BA should be approx. 70. Harvest stand in winter months to provide food for deer using nearby deer yards.

Other Comments:

Next Steps: Monitor stand after harvest for regeneration.

28	42075028-Cut	20.5	6132 - Mixed Lowland Forest with Cedar	High Density Log	90	Harvest	Shelter Wood with Reserves	6132 - Mixed Lowland Forest with Cedar	Cmpt. Review Proposal
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Prescription Treat stand by removing red maple, spruce, balsam and yellow birch. Leave most WP and all hemlock and cedar and sub merchantable trees. Encourage new regen and promote existing regen. Harvest stand in winter months to provide food for deer using nearby deer yards. Residual BA should be approx. 50.

Other Comments:

Next Steps: Monitor stand after harvest for regeneration. Regeneration of all species present would be acceptable.



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30	42075030-Cut	28.4	4191 - Mixed Upland Deciduous with Conifer	High Density Log	75	Harvest	Shelter Wood with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Shelterwood stand to promote regeneration of all species present. Harvest aspen, spruce, balsam, paper birch. Selectively harvest upland
Specs: hardwood species as well as some white pine. Leave all hemlock. Leave a component of aspen and/or birch (1 tree / 5 acres), as well as some large white pine. Harvest stand in winter months to provide food for deer using nearby deer yards. Residual BA should be approx. 60.

Other
Comments:

Next
Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

31	42075031-Cut	33.3	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	80	Harvest	Clearcut with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Harvest spruce, balsam, aspen, red maple, paper birch. Leave white pine, hemlock and cedar. Treat with adjacent stands if they are treated.
Specs: Consider deer habitat concerns. Harvest stand in winter months to provide food for deer using nearby deer yards. Stand would likely need to be treated in winter anyhow due to soil/terrain issues.

Other
Comments: Do not treat stand if adjacent stands are not harvested.

Next
Steps: Monitor for regeneration. All species currently present would be acceptable regeneration.

35	42075035-Cut	103.4	429 - Mixed Upland Conifers	High Density Log	80	Harvest	Shelter Wood with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
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Prescription Shelterwood stand removing some maple, birch and white pine. Cut all aspen, spruce and balsam. Leave hemlock and cedar. Leave super
Specs: canopy white pine if they exist. Residual BA should be approx. 50. Harvest stand in winter months to provide food for deer using nearby deer yards. Stand would likely need to be treated in winter anyhow due to soil/terrain issues.

Other
Comments:

Next
Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

36	42075036-Cut	8.6	6122 - Black Spruce	High Density Pole	80	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
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Prescription Treat stand if surrounding stand is treated. Final harvest spruce, tamarack, balsam, paper birch, red maple. Leave all WP, cedar as well as
Specs: submerchantable species.

Other
Comments:

Next
Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

39	42075039-Cut	51.2	4134 - Aspen, Spruce/Fir	Medium Density Log	80	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Final harvest stand, leave any white pine, hemlock, cedar. Leave some mature aspen (1 tree / 5 acres), particularly along the Hendrie River.
Specs: Harvest stand in winter months to provide food for deer using nearby deer yards.

Other
Comments:

Next
Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

**Total Treatment
Acreage Proposed: 437.3**



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41	42075041-Cut	35.8	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal

Prescription Specs: Harvest all paper birch, aspen, spruce, balsam poplar, red maple balsam fir and tamarack. Leave all white pine, cedar and hemlock.

Other Comment: Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

Limiting Factor and No Treatment Reason 2G: Blocked by physical obstacle
May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area

43	42075043-Cut	31.7	42290 - Natural Mixed Pine	Low Density Log	95	Harvest	Seed Tree with Reserves	42390 - Mixed Non-Pine Upland Conifers	Cmpt. Review Proposal
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Prescription Specs: Treat stand by removing jack pine, aspen, birch, spruce and few red/white pine with the objective of establishing regeneration. Residual BA should be no more than 20.

Other Comment: Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

Limiting Factor and No Treatment Reason 2G: Blocked by physical obstacle
May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area

49	42075049-Cut	16.5	4134 - Aspen, Spruce/Fir	High Density Log	75	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Specs: Treat with final harvest with the objective of establishing regeneration. Leave white pine and any hemlock present as retention if not a hinderance to logging operations.

Other Comment:

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denies access
Permission will need to be granted by the private landowner to gain access to the stand. There is an old existing road on private land leading to State land that will need improvement, trees cut/trimmed, etc. Area will need a formal survey as well to es



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
50	42075050-Cut	83.7	6122 - Black Spruce	High Density Pole	105	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Treated stand with a final haverst. Cut all spruce, tamarack, birch, maple and any aspen. Leave white pine and any hemlock present. Establish 'no cut' pockets for cedar retention where no logging is to occur.</p> <p><u>Other Comment:</u> Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.</p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No Treatment Reason</u> 2G: Blocked by physical obstacle May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no good existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard</p>									
52	42075052-Cut	7.2	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Log	105	Harvest	Shelter Wood with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Treat stand with a shelterwood, removing some white pine and all spruce, balsam, maple and most birch and aspen. Leave some mature aspen and/or birch (1 tree / 5 acres). Leave hemlock and cedar as retention. Residual BA should be approx. 50.</p> <p><u>Other Comment:</u> Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.</p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No Treatment Reason</u> 2G: Blocked by physical obstacle May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area</p>									
53	42075053-Cut	59.4	4319 - Mixed Upland Forest	High Density Log	85	Harvest	Shelter Wood with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Shelterwood stand. Remove some of the maple overstory to encourage maple reproduction. Remove aspen, spruce and balsam as well as some of the white pine. Leave some mature aspen and/or birch (1 tree / 5 acres). Leave some super canopy white pine. Leave all hemlock and cedar present as retention. Residual BA should be approx. 50.</p> <p><u>Other Comment:</u> Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.</p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No Treatment Reason</u> 2D: Road needed May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no good existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard</p>									

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
54 42075054-Cut	4.2	42210 - Natural Red Pine	High Density Log	90	Harvest	Shelter Wood with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal

Prescription Treat stand with a shelterwood. Remove some red pine and white pine as well as all spruce and birch. Leave some red and white pine as well as miscellaneous species as retention. Residual BA should be no more than 60.

Other Comment: Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

Limiting Factor and No Treatment Reason 2G: Blocked by physical obstacle
Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area, etc.

55 42075055-Cut	38.6	42290 - Natural Mixed Pine	High Density Log	106	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
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Prescription Treat stand with a shelterwood. Remove pine down to approx. 60 BA. Cut all spruce, paper birch and aspen. May need to treat in winter.

Other Comment:

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denies access
Permission will need to be granted by the private landowner to gain access to the stand. There is an old existing road on private land leading to State land that will need improvement, trees cut/trimmed, etc. Area will need a formal survey as well as es

56 42075056-Cut	8.9	6122 - Black Spruce	High Density Pole	85	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
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Prescription Harvest all spruce, red maple, paper birch, balsam fir, and tamarack. Leave white pine, hemlock, yellow birch and cedar as retention.

Other Comment: Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.

Next Steps: Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.

Limiting Factor and No Treatment Reason 2G: Blocked by physical obstacle
May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no good existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
59	42075059-Cut	56.6	6122 - Black Spruce	High Density Pole	90	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest all spruce and tamarack with the objective of establishing regeneration. Leave all pine and any hemlock and cedar that exists as retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2A: Adjacent landowner denies <u>Treatment Reason</u> access Permission will need to be granted by the private landowner to gain access to the stand. There is an old existing road on private land leading to State land that will need improvement, trees cut/trimmed, etc. Area will need a formal survey as well to es</p>									
65	42075065-Cut	8.1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest stand, cut all paper birch, spruce, aspen, balsam fir, lowland poplar and red maple with the objective of regeneration. Leave all white pine, cedar and any hemlock and yellow birch as retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> Difficult stand to access with surrounding lowlands. Currently no existing road. Issues to deal with such as stream crossings, deer yard issues, etc. Treat stand if access is created and surrounding stands are treated.</p>									
66	42075066-Cut	20.1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest, cut all birch, aspen, spruce, balsam and tamarack with the objective of regeneration; leave white pine, cedar and any possible hemlock as retention. Leave a component of mature birch and/or aspen (1 tree / 5 acres) for wildlife habitat.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area, etc. Treat stand if surrounding stands are treated.</p>									
68	42075068-Cut	16.9	42290 - Natural Mixed Pine	Medium Density Log	80	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Possibly treat by with a shelterwood by removing some red and white pine, cut all jack pine and spruce. Leave some red and white pine for retention. In addition, leave a component of mature birch and/or aspen (1 tree / 5 acres) as they exist for wildlife habitat. Residual BA should be no more than 30.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area, etc.</p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
69	42075069-Cut	38.3	6122 - Black Spruce	High Density Pole	85	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Harvest all black spruce, red maple, paper birch, aspen as well as some red and white pine with the objective of obtaining regeneration. Leave all cedar and hemlock and some white pine/red pine as retention.</p> <p><u>Other Comment:</u> Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.</p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No Treatment Reason</u> 2D: Road needed May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no good existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard</p>									
71	42075071-Cut	38.0	429 - Mixed Upland Conifers	High Density Log	98	Harvest	Shelter Wood with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Treat stand with a shelterwood by removing some pine as well as all red maple, aspen, spruce and balsam with the objective of establishing regeneration. Leave a component of mature birch and/or aspen (1 tree / 5 acres) for wildlife habitat. Residual BA should be more than 40.</p> <p><u>Other Comment:</u> Stand is blocked by the Hendrie River to the north, various landowners to the east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.</p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No Treatment Reason</u> 2G: Blocked by physical obstacle Stand is currently difficult to access, no good existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area, etc.</p>									
75	42075075-Cut	12.9	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	70	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Final harvest with reserves. Cut aspen, maple, birch, spruce, balsam with the objective of obtaining regeneration. Leave WP and cedar as retention. In addition, leave a component of mature birch and/or aspen (1 tree / 5 acres) for wildlife habitat.</p> <p><u>Other Comment:</u> Stand is blocked by the Hendrie River to the north, various landowners to the north and east, road-less areas to the south and railroad/wetlands to the west. Probably the best option to access the stand for harvesting operations would be to use an old existing logging road on the north side of the Hendrie River and finding a place to cross with a portable bridge. It will take some re-con to identify a location for a bridge site where there is stable banks and minimal wetland impact. It may be that there is not a good place for a bridge site. The other possible alternative would be to improve/establish roads across private land as well as Forest Service Land to the east to access the stand area. This too may take considerable effort.</p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No Treatment Reason</u> 2G: Blocked by physical obstacle May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area</p>									



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
76	42075076-Cut	253.5	6129 - Mixed Coniferous Lowland Forest	Medium Density Log	85	Harvest	Clearcut with Reserves	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest all spruce, tamarack, balsam fir, jack pine, aspen, paper birch and red maple. Leave all white pine, red pine, hemlock, cedar and yellow birch as retention. May have leave pockets of cedar intact if cedar is too dense for logging operations to occur, establish these areas during sale prep if needed.</p> <p><u>Other Comment:</u></p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No. Treatment Reason</u> 2D: Road needed Difficult to access stand for treatment, the RR corridor would need to be crossed under permit of the RR company and new road would need to be constructed through stand. Quinn Creek flows adjacent and through portions of stand and would need to be consider</p>									
77	42075077-Cut	14.4	6132 - Mixed Lowland Forest with Cedar	High Density Pole	80	Harvest	Clearcut with Reserves	6132 - Mixed Lowland Forest with Cedar	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest, cut all birch, aspen, spruce, balsam and tamarack; leave white pine, cedar and any hemlock as retention.</p> <p><u>Other Comment:</u></p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No. Treatment Reason</u> 2D: Road needed Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area, etc.</p>									
78	42075078-Cut	19.3	42290 - Natural Mixed Pine	Medium Density Log	80	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Treat by with a shelterwood by removing some red and white pine, cut all jack pine, spruce and most birch/aspen. Leave a component of mature birch and/or aspen (1 tree / 5 acres) for wildlife habitat. Leave some red and white pine as retention. Residual BA should be approx. of 30.</p> <p><u>Other Comment:</u></p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No. Treatment Reason</u> 2D: Road needed May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area</p>									
79	42075079-Cut	149.7	429 - Mixed Upland Conifers	Medium Density Log	90	Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
<p><u>Prescription</u> Treat stand with a final harvest. Cut all spruce, jack pine, aspen, red maple, paper birch as well as some red and white pine. Leave a component of mature birch and/or aspen (1 tree / 5 acres) for wildlife habitat. Leave some red an white pine as well as all cedar for retention.</p> <p><u>Other Comment:</u></p> <p><u>Next Steps:</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.</p> <p><u>Limiting Factor and No. Treatment Reason</u> 2D: Road needed Difficult to access stand for treatment. If stand is accessed from the east there are various landowners to cross where there is no existing roads. If coming from the west, the RR corridor would need to be crossed under permit of the RR company and new</p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
83	42075083-Cut	13.3	42290 - Natural Mixed Pine	High Density Log	80	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Possibly treat by with a shelterwood by removing some red and white pine, cut all jack pine, spruce and any birch/aspens. Leave a component of mature birch and/or aspen (1 tree / 5 acres) as they exist for wildlife habitat. Leave some red and white pine as retention. Residual BA should be approx. 30.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration. <u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> May be difficult to access for treatment. Best access may involve a portable bridge crossing the Hendrie River. Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area</p>									
85	42075085-Cut	12.5	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	75	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Treat stand by harvesting all red maple, aspen, paper birch, black spruce and balsam fir with the objective of obtaining regeneration. Leave all red and white pine as well as any hemlock and cedar that may exist for retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration. <u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> Access is limited and would need road construction/improvement for logging operations to occur. Forest Service land as well as private land would need to be crossed to access stand for treatment to occur.</p>									
88	42075088-Cut	8.9	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	80	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest all red maple, aspen, paper birch, spruce and balsam with the objective of regeneration. Leave all white pine, hemlock cedar and yellow birch as retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration. <u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> Stand is currently difficult to access, no existing roads, other landowners to deal with, seasonal issues with treating stand, deer yard area, etc. Treat stand if surrounding stands are treated.</p>									
93	42075093-Cut	6.8	6122 - Black Spruce	Medium Density Pole	80	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest stand, cut all spruce as well any balsam, jack pine, paper birch, red maple with the objective of regeneration. Leave all white pine and any hemlock, cedar and yellow birch as retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Next</u> Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration. <u>Steps:</u></p> <p><u>Limiting Factor and No</u> 2D: Road needed <u>Treatment Reason</u> Currently no roads, Forest Service land is adjacent, lowland types around stand. Possibly treat if nearby pine ridge is treated and area is made accessible.</p>									

**Table 4 -- Treatments Prescribed with
a Limiting Factor**

Compartment: 075
Year of Entry 2013



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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
98	42075098-Cut	15.7	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	75	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Final harvest, cut all red maple, paper birch, aspen, spruce and balsam with the objective of regeneration. Leave all white pine, red pine and any
Specs: hemlock and cedar as retention.

Other
Comment:

Next Monitor stand after harvest for regeneration. All species currently present would be acceptable regeneration.
Steps:

Limiting Factor and No 2D: Road needed
Treatment Reason Currently no roads, Forest Service land is adjacent, lowland types around stand. Possibly treat if nearby stands are treated and area is made accessible.

**Total Treatment
Acreage Proposed: 971.3**

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
42045001-Cut	3.9	42210 - Natural Red Pine	High Density Log	89	Harvest	Seed Tree	42210 - Natural Red Pine	Cmpt. Review Proposal

Prescription: Harvest site to imitate a catastrophic crown fire by "clear-cutting all but a patchy mosaic of pine trees and clumps of trees to serve as seed trees"
Specs: (MNFI). Focus on the 8-18 inch DBH class. Residual BA 10-20 to allow for successful pine regeneration.

Other Comments: This stand is identified by MNFI as a Dry Northern Forest. Move some of the Hemlock and Yellow Birch logs into stand 34 for Hemlock regeneration nurse logs.

Next Steps: Burn the harvested area in the spring to reduce slash, hardwood competition, and to expose the mineral soil. This should be done within 2-3 years after the completion of any harvesting activities. If the site is not burned within the time frame, scarify site to promote pine regeneration. If scarification fails, plant red pine. Acceptable regeneration mix is RP and a small component of WP.

**Total Treatment
Acreage Proposed: 3.9**

Stand	Newberry Mgt. Unit		5 – Forested Stands			Compartment: 075	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2013	
1	6129 - Mixed Coniferous Lowland Forest	Low Density Pole	6.3	93			Stand is a mix of lowland conifers species and some birch and balsam seedlings/saplings. Stand was affected by spruce budworm approx. 15 years ago. Some overstory spruce is still alive. Some areas regenerated to spruce, tamarack, b.fir and birch. Stand is remote and difficult to access.
3	6122 - Black Spruce	Low Density Pole	6.5	90			Stand is a mix of lowland conifers species and some birch and balsam seedlings/saplings. Stand was affected by spruce budworm approx. 15 years ago. Some overstory spruce is still alive. Some areas regenerated to spruce, tamarack, b.fir and birch. Stand is remote and difficult to access.
4	6120 - Lowland Cedar	High Density Pole	562.4	100	81-110		
7	6122 - Black Spruce	Medium Density Pole	5.8	Uneven Age			
8	6121 - Tamarack	Low Density Sapling	48.7	60			
9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	213.5	50	51-80		Stand has been logged in the past ~40 years ago. Old logging roads still evident.
10	6129 - Mixed Coniferous Lowland Forest	Medium Density	26.3	35			
11	6122 - Black Spruce	Medium Density Pole	14.2	95			Stand is mostly a mix of black spruce and tamarack. The south end of stand is dense pocket of decent timber quality. The north end of stand is more lowland with mostly tamarack scattered amongst tag alder. Stand is an island of timber amongst lowlands, remote and difficult to access.
12	6129 - Mixed Coniferous Lowland Forest	Medium Density	27.5	90			Stand was treated in the past. It is a mix of lowland conifers/hardwood. Stand occurs along a small ridge and low ground. Regeneration is mostly lowland conifers, balsam fir, spruce, tamarack, paper birch and red maple. Tag alder present in places. Large white pine scattered in the overstory with some pole sized cedar, birch, red maple and spruce.
13	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	32.2	90	81-110		Stand is quite diverse with species. Stand falls primarily in low ground but there are some areas in stand with firm ground. Most timber is large diametered and mature.
14	6129 - Mixed Coniferous Lowland Forest	Medium Density Log	10.0	95			Stand is a subtle rise in topography surrounded by lowlands. There are sawlog sized W. pine in the center of this stand, spruce, tamarack, birch on the fringes. Jack pine on the north end. Stand is an island amongst lowlands, it is remote and difficult to access.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	6121 - Tamarack	Low Density Log	68.7	90		Lowland stand. Trees are scattered. Small islands of timber scattered throughout stand. Varying degrees of subcanopy species. Some spruce in stand was impacted by spruce budworm approx. 15 years ago; trees died and regen of spruce, tamarack, b.fir, maple, p.birch coming back. Plenty of tag alder throughout in subcanopy, difficult stand to access and even more difficult to get around once you are here.
17	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	94.3	60	81-110	Stand has been treated in the past ~40 years ago. Old logging roads still evident. Stand is mostly hardwood but in a lowland site that can hold up water.
18	4319 - Mixed Upland Forest	High Density Log	71.9	90	111-140	Stand is quite diverse with species. The soil types and terrain vary with depressions, swales and some intermittent drainages mixed with small ridges. The low depressions/drainages are lowland conifer types with hardwood/aspen overtopping and the ridges have WP overtopping hemlock, red maple, yellow birch and aspen. The timber varies with this topography making areas too small to map separately. Most timber is mature and larger diametered.
19	4191 - Mixed Upland Deciduous with Conifer	Medium Density	24.0	30		
20	6122 - Black Spruce	Low Density Log	126.4	70		Stand flanks the Hendrie River. Tag alder/lowland brush throughout.
21	42390 - Mixed Non- Pine Upland Conifers	High Density Sapling	29.8	30		Stand was treated in the early 80's, mostly final harvested then. It regenerated to a mix of conifers with some hardwood species. Thick balsam fir in many places. Stand falls on irregular terrain which is mostly upland but has some low/wet areas.
22	4319 - Mixed Upland Forest	Medium Density	6.4	30		Stand was cut in the early 80's. Some residual trees were left from the cutting, they are in the overstory. Stand is sapling sized for the most part just coming into pole size. Parts of stand look like it was more open but is now filling in with trees.
23	6124 - Lowland Spruce- Fir	High Density Sapling	54.8	35		Stand was harvested in the past ~35 years ago. Some residual WP, spruce, hemlock, cedar left from cutting but it was mostly final harvested. Thick stand of lowland conifers for the most part. Tag alder present in pockets throughout stand.
24	4113 - R.Maple, Conifer	High Density Log	5.0	80	111-140	
25	4199 - Other Mixed Upland Deciduous	High Density Sapling	5.2	28		Stand was treated in the early 80's. Some scattered pole sized maple in the canopy left over from cut.
26	4113 - R.Maple, Conifer	High Density Log	82.8	80	111-140	This hardwood stand is diverse with tree species and sizes. Stand is mature. South end of stand is more red maple poles with thick balsam fir understory. Balsam fir is in the understory throughout stand and ranges from thick to thin. Occasional aspen in stand. White pine in stand is large diametered for the most part.

Stand	Newberry Mgt. Unit		5 – Forested Stands			Compartment: 075	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2013	
27	6129 - Mixed Coniferous Lowland Forest	Medium Density Log	18.0	96			
28	6132 - Mixed Lowland Forest with Cedar	High Density Log	20.5	90	81-110		Stand is a mix of deciduous/conifer trees in mostly low ground. Most trees are older and mature, not much quality in the hardwoods.
29	429 - Mixed Upland Conifers	High Density Log	15.3	80	51-80		Stand was treated in the past, looks like it would have been a shelterwood. Larger red maple and white pine in the overstory. Heavy balsam fir understory. Stand mostly occurs along an upland ridge.
30	4191 - Mixed Upland Deciduous with Conifer	High Density Log	28.4	75	111-140		New stand added.
31	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	33.3	80			Stand is diverse with species and terrain. Stand is mostly lowland conifer dominating. There are some upland areas in the stand that are too small to map out.
32	4119 - Mixed Northern Hardwoods	High Density Sapling	9.3	29			Stand was cut in the early 80's. Sapling sized with some trees getting close to pole size.
34	6120 - Lowland Cedar	High Density Pole	72.5	105			
35	429 - Mixed Upland Conifers	High Density Log	103.4	80	111-140		Stand is quite diverse with species and sizes. The terrain is here is a mix of upland and lowlands. The soil types and terrain vary with depressions, swales and some intermittent drainages mixed with small ridges. The low depressions/drainages are lowland conifer types and the ridges have WP overtopping hemlock, red maple, yellow birch, cedar, balsam, spruce and some aspen. The timber varies with this topography making areas too small to map separately. Balsam fir dominates most of the understory and is thick in many places. The northern end of stand was treated in the early 80's.
36	6122 - Black Spruce	High Density Pole	8.6	80	81-110		New stand added.
38	4130 - Aspen	High Density Pole	11.4	29			Stand was treated in the early 80's. Just coming into pole size. Aspen is straight and tall.
39	4134 - Aspen, Spruce/Fir	Medium Density Log	51.2	80	81-110		Stand is a mix of aspen, r. maple, spruce, fir and cedar. Some W. pine present. Paper birch present but dying out. Aspen is getting old and breaking apart. R.maple and b.fir dominate understory.
41	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	35.8	80			Lowland stand consisting mostly of paper birch, aspen, spruce, balsam and cedar. Stand has timber value and is silviculturally ready.
42	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	15.5	90			



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Newberry Mgt. Unit

5 – Forested Stands

Compartment: 075

Year of Entry: 2013



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	42290 - Natural Mixed Pine	Low Density Log	31.7	95	1-50	Stand sits on an upland ridge complex surrounded by lowland types. Stand is open grown with a mix of pine and deciduous species. Trees are mature. Old stumps present on ridge.
44	6121 - Tamarack	Medium Density	138.5	105		Low ground. Many trees in stand are suppressed and sub-merchantable.
45	6116 - Lowland Birch	Medium Density Pole	3.9	70		
46	6122 - Black Spruce	Medium Density Pole	19.0	90		
49	4134 - Aspen, Spruce/Fir	High Density Log	16.5	75		Stand mostly aspen in the overstory with occasional white pine. Aspen is mature. Younger balsam fir and spruce in the understory coming up under the aspen.
50	6122 - Black Spruce	High Density Pole	83.7	105	111-140	Stand is a mix of lowland conifers many consisting of spruce and cedar. Decent spruce in most of the stand. Cedar/spruce density ratios vary throughout stand. Some areas are almost pure spruce while others are more mixed. Small stream on the north edge of stand.
51	6120 - Lowland Cedar	High Density Pole	158.7	80		Stand is dominated by lowland conifers, mostly cedar. Stand is variable with densities and mix of species. Some areas have more birch and spruce mixed in with the cedar.
52	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Log	7.2	105	111-140	Stand is subtle rise in topography amongst lowland type, lowland on edges of stand. Balsam fir is heavy for the most part in understory.
53	4319 - Mixed Upland Forest	High Density Log	59.4	85	81-110	Stand is quite a mix. The western portion is primarily red maple with a more open understory. Maple is poor quality. Parts of the stand has a large diametered white pine overstory. The eastern part of the stand has an aspen component that is large diametered and overmature. Balsam fir is thick in many parts of the subcanopy. The southern edges of the stand drop off into more of a lowland type. Some wintering deer in here now but very light activity. Evidence of past browsing on red maple seedlings.
54	42210 - Natural Red Pine	High Density Log	4.2	90	111-140	Stand sits on a ridge. Decent quality red pine in stand. More birch in stand on the north side of ridge.
55	42290 - Natural Mixed Pine	High Density Log	38.6	106	111-140	Stand mostly occurs along a ridge that is flanked by lowland spruce. The ridge is steep in a few places. Aspen in stand is mostly growing in pockets on ridge. Most timber is old and mature. The pine in stand is tall and straight and has quality. Balsam fir is thick in a few places in understory.
56	6122 - Black Spruce	High Density Pole	8.9	85		Stand consists mostly of black spruce with a mix of other species such as hemlock, cedar, yellow birch, red maple, paper birch and minor component of tamarack. Spruce is decent quality. Large white pine scattered on the perimeter of stand.

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Newberry Mgt. Unit

5 – Forested Stands

Compartment: 075
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
59	6122 - Black Spruce	High Density Pole	56.6	90		Stand is predominately lowland black spruce with a scattering of log sized white pine in the overstory. Lowland brush species present in places in the understory.
60	42290 - Natural Mixed Pine	Medium Density Log	3.3	90	51-80	Stand sits on a narrow upland ridge that supports red/white pine mixed with spruce, birch and maple. B. fir/spruce in understory.
61	6122 - Black Spruce	High Density Pole	18.1	90		Merchantable black spruce ranges from 1 - 4 sticks tall but several stems sub-merchantable sized. Lab tea on the ground amongst lowland brush.
62	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	5.3	75		
63	42290 - Natural Mixed Pine	Medium Density Log	6.5	75	51-80	
64	6120 - Lowland Cedar	High Density Log	29.9	105		Small drainage through the middle of stand, Quinn Creek.
65	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	8.1	80		
66	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	20.1	80		
68	42290 - Natural Mixed Pine	Medium Density Log	16.9	80	81-110	Stand falls mostly on an upland ridge. Red pine and white pine are log sized and decent quality. Jack pine is getting old. Lowland types surrounding stand.
69	6122 - Black Spruce	High Density Pole	38.3	85		Decent spruce in stand growing mostly in lower ground. Subtile ridges throughout stand that support sawlog sized red/white pine.
70	6121 - Tamarack	Medium Density Pole	15.0	40		Some decent pole sized tamarack in some areas of stand but most is sapling sized. Low ground.
71	429 - Mixed Upland Conifers	High Density Log	38.0	98	81-110	Stand is mix of upland and lowland types. The uplands are subtile rises in topography mixed with low pockets of lowland tree species. Pine dominates the higher ground (tall and large diametered) and balsam fir is heavy in the subcanopy.
74	6129 - Mixed Coniferous Lowland Forest	Low Density Pole	12.4	80		
75	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	12.9	70		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
76	6129 - Mixed Coniferous Lowland Forest	Medium Density Log	253.5	85	81-110	Stand is a diverse mix of species/ages on a variable mix of topography. Difficult to type out all the variability. There are upland ridges scattered throughout this mostly lowland type stand. Pine, maple, birch, aspen types dominate the upland ridges and spruce, cedar, tamarack dominate the lowlands.
77	6132 - Mixed Lowland Forest with Cedar	High Density Pole	14.4	Uneven Age		
78	42290 - Natural Mixed Pine	Medium Density Log	19.3	80	81-110	Stand falls mostly on an upland ridge. Red pine and white pine are log sized and decent quality. Jack pine is getting old. Lowland types surrounding stand as well as a few pockets mixed within.
79	429 - Mixed Upland Conifers	Medium Density Log	149.7	90	51-80	Stand falls along a ridge for the most part, the edges of stand are a bit more lowland but most of the stand is along a subtle upland ridge. Stand is somewhat variable with tree species/density due its shape, topography and lowland/upland interface.
83	42290 - Natural Mixed Pine	High Density Log	13.3	80	81-110	Stand falls mostly on an upland ridge. Red pine and white pine are log sized and decent quality. Jack pine is getting old. Lowland types surrounding stand as well as a few pockets mixed within.
84	6120 - Lowland Cedar	High Density Pole	15.2	80		
85	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	12.5	75	81-110	Stand is a mix of aspen, birch, maple and conifer species. pine, spruce and balsam. Maple regen has been browsed in the past.
88	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	8.9	80		
89	4136 - Aspen, Mixed Conifer	Medium Density	28.8	9		Stand was mostly final harvested in 2002. Fully regenerated. Some scattered white pine, hemlock, red pine in overstory. Most trees that regenerated are now sapling sized 5-15' tall & 1-2"DBH or smaller.
90	6124 - Lowland Spruce-Fir	Low Density Pole	4.5	85		Stand is a lowland pocket surrounded by upland type. North end is a low/wet area with standing dead spruce snags. The fringe of lowland supports trees where it goes up onto upland site.
91	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	3.7	85		Stand is mostly surrounded by upland type. This stand is in a low area that gradually becomes more low/wet and treed bog like as you move west.
93	6122 - Black Spruce	Medium Density Pole	6.8	80		Lower areas mixed throughout stand with smaller trees, treed bog types. Thick tree canopy where forested.
94	4115 - Y.Birch, Hemlock NH	High Density Log	2.8	90	111-140	Stand is log sized, some very large yellow birch, w.pine, hemlock and red maple. South end of stand is lower and somewhat wet. Size of stand is small. Balsam fir understory is heavy in portions of stand.

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Newberry Mgt. Unit

5 – Forested Stands

Compartment: 075
Year of Entry: 2013



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
97	6120 - Lowland Cedar	High Density Pole	21.9	90		
98	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	15.7	75		
99	429 - Mixed Upland Conifers	Low Density Pole	4.8	85		Ridge of pine, paper birch, spruce and balsam surrounded by lowlands. This ridge is fairly open.
100	6120 - Lowland Cedar	Medium Density Pole	4.7	90		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	6220 - Alder/willow	224.8	No	Unspecified	There are scattered islands of trees throughout. These are subtle ridges interspersed amongst lowlands. Area is remote with little access. Spruce out here was impacted by spruce budworm approx. 15 years ago. Still live spruce out here by dead trees/snags still present.
5	6229 - Mixed lowland shrub	160.6	No	Unspecified	
6	6224 - Treed Bog	18.6	No	Unspecified	
15	6224 - Treed Bog	2.0	No	Unspecified	
33	6229 - Mixed lowland shrub	301.0	No	Unspecified	
37	6220 - Alder/willow	10.0	No	Unspecified	
40	6229 - Mixed lowland shrub	7.1	No	Unspecified	
47	6224 - Treed Bog	16.9	No	Low (NonForested)	Stand swapped from Forested to Non-Forested.
48	6224 - Treed Bog	1.8	No	Unspecified	Sapling/seedling sized cedar and tamarck. Cattail present. Old stumps in middle of stand. <20% canopy, wetland type..
57	6224 - Treed Bog	45.5	No	Low (NonForested)	
58	3302 - Low Density Conifer Trees	11.3	No	Unspecified	
67	6220 - Alder/willow	1.4	No	Unspecified	
72	6220 - Alder/willow	10.4	No	Unspecified	Solid tag alder.
73	6224 - Treed Bog	16.9	No	Unspecified	
80	6229 - Mixed lowland shrub	9.9	No	Unspecified	
81	6224 - Treed Bog	17.1	No	Unspecified	
82	6229 - Mixed lowland shrub	11.4	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
86	6224 - Treed Bog	23.2	No	Unspecified	
87	6230 - Cattail	19.3	No	Unspecified	Old beaver flooding. Standing tree snags and stumps. Some cedar and tamarack seedling/saplings present. Cattails growing now.
92	6224 - Treed Bog	3.8	No	Unspecified	
95	6220 - Alder/willow	1.2	No	Unspecified	
96	6229 - Mixed lowland shrub	21.7	No	Unspecified	

**7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments
multiple - see	Unique Site - SCA	42075_SCA	2094.6	SCA of POG removed. Area does not contain old growth characteristics. Area currently has very limited access, that was the reason for the original POG call. Area will be treated and then road access blocked/removed in order to keep limited access characteristics.



8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservation Area	Type	Description
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.

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