Escanaba Forest Management Unit
Compartment Review Presentation
Compartment: 019 Entry Year: 2014
Compartment Acreage: 631 County: Menominee

Revision Date: 05/30/2012

Stand Examiner: Dustin Salter, FRD

Legal Description: T36N R28W Sections 9, 16, 21 and 32

Management Goals: This compartment is comprised primarily of four different cover types which are almost equal in acres. The four primary cover types are aspen, lowland conifer, mixed northern hardwoods/upland deciduous and oak. This treatment period we are clear cutting one aspen stand, which is 70 acres. The majority of the aspen acreage within this compartment has a low site index. The next prominent cover type is northern hardwoods/upland deciduous. There are three stands scheduled to be clearcut totaling 98 acres, with the intention of managing for a mix of hardwood species along with some upland conifer. These hardwood stands contain poor quality red maple; there are not enough quality stems to manage on an uneven basis. There is another 18 acre upland deciduous stand that will be shelterwood cut managing for a mix of oak, pine, and hardwood.
Lowland conifer cover type is the next prominent one. There are four stands scheduled for seed tree cuts, which total 86 acres. These areas are all over 95 years of age. The stands prescribed are a mix of tamarack, black spruce and cedar. These stands will be managed for a mix of lowland conifer species. There haven't been any treatments in this cover type in this compartment since the original logging days. The eastern larch beetle and the spruce budworm are both prevalent in this area and it is important to begin to regenerate these stands before we lose our seed source.
The last prominent cover type is oak. The northern portion of the compartment consists of high quality red oak on the ridges and there is one stand prescribed for a thinning. This stand is 69 acres. The oak in the southern parts of the compartment are low quality pin oak, which are nearing the end of their life cycle. There are two pin oak stands prescribed for a clearcut and after harvest they are to be planted to jack pine. These stands total 32 acres. There is an abundance of low quality oak/upland brush cover types in this landscape with little upland conifer acreage. There is considerable die off of the oak due to senescence and oak wilt. There are a number of epi-centers of oak wilt throughout the compartment. These will need to be treated.

Soil and Topography: Topography is level with some rolling hills. Soils include well-drained sandy loams and poorly drained black muck over sandy loam. Prominent soil series are Pemene, Lupton and Cathro.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is located in the center of a block of state forest land that is about 20 miles long and 8 miles wide in the southwestern part of Menominee County. This compartment is broken up into three different sections, with none of them being connected to the other portions. This compartment is bounded by mostly private property. The majority of this compartment and the surrounding private lands are primarily forest land used for recreational purposes. There are numerous homes and camps located in close proximity to this compartment. There is also some private land around the compartment that is used for agricultural purposes.

Unique, Natural Features: None Known

Archeological, Historical, and Cultural Features: None Known

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: The Shakey River flows through a very small portion of the compartment. Also Rosebush creek flows through the northern portion of the compartment.

Wildlife Habitat Considerations: Compartment 19 is part of the Menominee End Moraine Management Area: This management area contains forest types that are adapted to sandy outwash plain conditions. The Shakey Lakes Savanna Natural Area is located here. Most of the unit's oak resource is located in this management area, and perpetuation of this cover type is of high priority. The presence of oak wilt disease increases the urgency to find management solutions to oak regeneration challenges. There are also opportunities to expand and link forest openings and upland brush habitats through the use of prescribed burns and mechanical treatments. Featured wildlife species include black bear, ruffed grouse, and eastern bluebird.
Aspen: One large aspen stand has been nominated for treatment. Regenerating aspen will provide habitat for a variety of species. There is an oak component in this stand along with oak wilt. See below.
Oak Resource: Wildlife desires a high quality oak resource and therefore initiated a discussion on maintaining this species when stands are harvested. For three of these stands, an agreement was reached that 10% retention would be used and the majority would be oak. The remaining stands will be reviewed further with wildlife working toward the perpetuation of this resource and associated habitats. Two stands which have had oak wilt treatments in the past will be planted to white spruce with a number of oak seedlings or saplings per acre.
Lowland Swamp Conifer: Three lowland conifer stands have been nominated for final harvest. Due to the high value of these types for wildlife and the difficulty in reliably regenerating these stands to a similar species composition, specifically the cedar component, these stands and issues will be further reviewed prior to a treatment being agreed upon.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of an end moraine of medium-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 10 and 100 feet. Beneath the glacial drift is the Cambrian Munising Formation which overlaps Precambrian aged rocks, which may have metallic and nonmetallic mineral potential. State land is currently leased in Section 32 for metallic exploration, known as the “Back Forty”. Gravel pits are located in the area and potential appears to be good on the uplands. No economic oil and gas production has been found in the UP.

Vehicle Access: The primary access into the compartment is from two-track roads that branch off of the Chalk Hills Road. The Chalk Hills Road is a county road that runs east-west just to the south of the northern section of the compartment. In order to access the central portion of the compartment access is only available through private land. The southern portion of the compartment is accessed from the Boneyard Road and two-track roads branching off from it.

Survey Needs: About 8 to 10 registered corners will need to be set in order to establish property lines for timber sales.

Recreational Facilities and Opportunities: There are no developed facilities within this compartment. The primary uses are hunting, four-wheeling and snowmobiling.

Fire Protection: With the majority of the upland forest consisting of upland deciduous species there is a low risk of a major fire in this area. There are lager openings with dried grasses and sedge that could carry a surface fire in the spring through the fall in different portions of the compartment. There are a limited amount of water sources within the compartment, with the exception of Rosebush Creek in the Northern portion of 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**
-

Table 1 – Total Acres by Cover Type and Age Class

Escanaba Mgt. Unit **Compartment 019 Year of Entry 2014**

Dustin Salter : Examiner

Age Class

	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	Total
Aspen	37	12	18	22	54	70	0	0	0	0	0	0	0	0	**214**
Cedar	0	0	0	0	0	0	0	0	0	0	84	0	0	0	**84**
Lowland Conifers	0	0	11	0	0	0	0	0	0	0	22	0	12	0	**45**
Lowland Deciduous	0	0	5	0	0	0	0	0	0	0	0	0	0	0	**5**
Lowland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
Lowland Spruce/Fir	0	0	8	0	0	0	0	0	0	0	9	0	0	0	**17**
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	31	0	0	0	0	**31**
Northern Hardwood	0	0	0	0	4	0	0	0	86	14	0	0	0	0	**104**
Oak	0	0	0	0	0	0	0	0	0	101	0	0	0	0	**101**
Tamarack	0	0	0	0	0	0	0	0	0	3	0	0	0	0	**3**
Upland Conifers	0	24	0	0	0	0	0	0	0	0	0	0	0	0	**24**
Total	**41**	**36**	**42**	**22**	**58**	**70**	**0**	**0**	**86**	**149**	**115**	**0**	**12**	**0**	**631**

Table 2 – Proposed Treatment Summaries

Escanaba Mgt. Unit
Year of Entry 2014

Compartment 019
Total Compartment Acres: 630.9

Acres by Treatment Type

Commercial Harvest - 374	Site Prep - 0	Tree Planting - 18	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	70	0	0	0	0	0	**70**
Cedar	0	0	52	0	0	0	**52**
Lowland Conifers	0	0	22	0	0	0	**22**
Lowland Spruce/Fir	0	0	9	0	0	0	**9**
Mixed Upland Deciduous	12	0	0	18	0	0	**31**
Northern Hardwood	86	0	0	0	0	0	**86**
Oak	32	0	0	0	69	0	**101**
Tamarack	3	0	0	0	0	0	**3**
Total	**204**	**0**	**83**	**18**	**69**	**0**	**374**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	33019005-Cut	3.1	6121 - Tamarack	High Density Pole	96		Harvest	Clearcut	6121 - Tamarack	Cmpt. Review Proposal

Prescription Specs: Clearcut - cut all species greater than 3'; except retain a couple of clumps(5-10 trees) in the stand for an additional seed source. This stand will be managed for tamarack. The stand is small so we don't need to meet the retention guidelines.

Other Comments: Good quality tamarack with some low quality cedar.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	33019006-Cut	70.4	4130 - Aspen	High Density Pole	55		Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves - cut all trees; except leave enough oak, white spruce, and pine(if present) to meet the retention guidelines. Treat the oak wilt pockets - this area has large rocks so trenching is not an option in this area. So we will cut all oak within two chains of the edge of the oak wilt pocket. When leaving the residual oak leave them scattered to prevent underground spread. Manage this stand for a mix of the current species.

Other Comments: There are some pockets of oak wilt within this stand.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	33019012-Cut	68.9	4123 - Red Oak	High Density Log	98	111-140	Harvest	Low Thinning	4123 - Red Oak	Cmpt. Review Proposal

Prescription Specs: Low Thinning - Thin this stand down to a BA of 70. Also create 1 60' regeneneration gap per 2 acres. These gaps should be centered on a couple of oak stumps. Within the gaps cut all trees greater than 2 inches. Treat the oak wilt pockets - this area has large rocks so trenching is not an option in this area. So all oak within two chains of the edge of the oak wilt pocket will be cut.

Other Comments: Good quality red oak stand. There are a couple of oak wilt pockets within the stand, south of the peninsula of stand 6.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
15	33019015-Cut	22.1	6129 - Mixed Coniferous Lowland Forest	High Density Pole	102		Harvest	Seed Tree with Reserves	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal

Prescription Specs: Seed Tree with reserves - Cut all species, leaving enough seed trees(mostly in clumps) to provide an adequate seed source and to meet the retention guidelines. Leave a 25 foot buffer on both sides of Rosebush Creek as a buffer. The contractor will either have to use a portable bridge to bring the wood out to the north or skid the wood out to the west and into comp 17 to a nearby road.

Other Comments: Rosebush creek flows through the north end of the stand. Good quality tamarack and spruce with poor quality cedar.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22	33019022-Cut	8.9	6122 - Black Spruce	High Density Pole	105		Harvest	Seed Tree with Reserves	6122 - Black Spruce	Cmpt. Review Proposal

Prescription Specs: Seed tree cut with reserves - Cut all species greater than three inches; except leave seed tree clumps (5 to 10 trees) of spruce and cedar scattered throughout the stand.

Other Comments: Good quality black spruce, with poor quality cedar.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
26	33019026-Cut	12.3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	98		Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves - Cut all species; except leave a mix of seed trees for diversity and for retention. Primarily pine, oak, and spruce will be left. Manage this stand for a mix of the current overstory species.

Other Comments: This stand is a mix of lowland and upland and there is a wide variety of species.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28	33019028-Cut	26.8	4126 - White, Black, N. Pin Oak	Low Density Log	98		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves - cut all species greater than 3 inches; except leave a few clumps of the better quality oak away from the oak wilt pocket. Treat the oak wilt as necessary.

Other Comments: This stand is very low quality as a forested stand and as an opening. There are scattered clumps of pin oak, which is in decline. There is also at least one oak wilt pocket within the stand. A large portion of the stand has pin cherry and hazel brush throughout it. This stand was prescribed burned in 1980. It looks like there was some honeysuckle planted in the fire line.

Next Steps: After the stand is harvested herbicide (if needed), trench, and plant jack pine seedlings. Trench around the clumps of residual oak. Due to the very xeric site conditions jack pine or red pine are the only good choices to keep this area in forest production. This site now serves as a very poor opening and there is an abundance of this cover type over this landscape. The deer numbers are high in this area so jack pine is the best option.

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
29	33019029-Cut	5.1	4126 - White, Black, N. Pin Oak	Medium Density Log	98		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves - cut all species greater than 3 inches; except leave a few clumps of the better quality oak.

Other Comments: Very poor quality pin oak, which is dying out of the stand.

Next Steps: After the stand is harvested herbicide (if needed), trench, and plant jack pine seedlings. Trench around the clumps of residual oak. Due to the very xeric site conditions jack pine or red pine are the only good choices to keep this area in forest production. The deer numbers are high in this area so jack pine is the best option.

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	33019009-Plant	14.0	4119 - Mixed Northern Hardwoods	Low Density Pole	98	1-50	Tree Planting	Hand Plant	42310 - Planted Spruce	Cmpt. Review Proposal

Prescription Specs: Trench and plant primarily white spruce, but also plant 100 oak per acre. Trench and plant around the residual stems. The brush and stumps are well broken down and the sedge is not real thick.

Other Comments: Part of this stand was clearcut in 1995 and other areas were cut in 2003. The areas cut in 2003 were part of an oak wilt sale, there were a few epi-centers of oak wilt that were treated. Very little of the area has regenerated, there are some red maple stump sprouts but overall this stand is open. There are some scattered merchantable oak, red maple, and spruce.

Next Steps:

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	33019013-Plant	4.0	4112 - Maple, Beech, Cherry Association	Low Density Pole	45	1-50	Tree Planting	Hand Plant	42310 - Planted Spruce	Cmpt. Review Proposal

Prescription Specs: Trench and plant primarily white spruce, but also plant 100 oak per acre.. Trench and plant around the residual stems. The brush and stumps are well broken down and the sedge is not real thick.

Other Comments: This area was cut in 2003 as part of an oak wilt sale, there were a few epi-centers of oak wilt that were treated. Very little of the area has regenerated, there are some red maple stump sprouts but overall this stand is open. There are some scattered merchantable oak, red maple, and spruce.

Next Steps:

Proposed Start Date: Unspecified

Total Treatment Acreage Proposed: 235.7

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
16	33019016-Cut	46.7	4119 - Mixed Northern Hardwoods	High Density Pole	80	141-170	Harvest	Clearcut with Reserves	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves - cut all species; except leave enough oak to meet 10% retention in the stand. Leave some oak in clumps and some scattered ones. This stand will be managed for a mix of maple, aspen, and oak. If oak wilt is identified treat as necessary.

Other Comment: Poor quality red maple stand with scattered aspen and oak. There is a lot of dead oak, but it doesn't look like oak wilt, but we will have to make sure.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason: 2B: Unknown if access through adjacent landowner(s) is possible

---

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	33019017-Cut	39.1	4119 - Mixed Northern Hardwoods	High Density Pole	81	111-140	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Clearcut with reserves - cut all species; except white pine, patch of cedar in northeast corner of the stand, and enough of the oak to meet 10% retention in the stand. There are at least two pockets of oak wilt within the stand, treat as necessary. This stand will be managed for a mix of the current overstory species.

Other Comment: Average to poor quality red maple stand with red oak and aspen scattered in.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason: 2B: Unknown if access through adjacent landowner(s) is possible

---

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19	33019019-Cut	52.2	6120 - Lowland Cedar	High Density Pole	102		Harvest	Seed Tree with Reserves	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal

Prescription Specs: Seed tree cut with reserves - Cut all species; except leave two half acre patches of the higher quality cedar along the transition zone along with some seed tree clumps (5 to 10 trees) scattered throughout the stand. This stand will be managed for a mix of the current overstory species.

Other Comment: This stand is a mix of black spruce, cedar, and tamarack. There is a two chain strip of good quality cedar along the transition zone to stand, but overall the cedar is poor quality. The spruce and tamarack are dying out due to their age, the stand needs to be harvested now while there is a quality seed source.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason: 2B: Unknown if access through adjacent landowner(s) is possible

---

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	33019021-Cut	18.3	4191 - Mixed Upland Deciduous with Conifer	High Density Log	97	141-170	Harvest	Shelter Wood with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Specs: Shelterwood Cut - Cut all species; except mark 20 to 30 basal area of oak and pine to retain. In areas where the aspen is dense do not leave the full 20 to 30 basal area. Maintain 10% retention in the stand when the overstory is removed in 10 to 20 years. Manage this stand for a mix of the current overstory species. Access into this stand will be a challenge, we will have to go through multiple landowners or make a winter road to access it.

Other Comment: Good quality red oak and white pine.

Next Steps:

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason: 2B: Unknown if access through adjacent landowner(s) is possible

Total Treatment Acreage Proposed: 156.3

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2014

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status

Prescription Specs:

Other Comments:

Next Steps:

Proposed Start Date: #Error

Total Treatment Acreage Proposed: **0**

Data updated before 10:00 AM

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	High Density Pole	3.3	102		
2	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	5.5	20		Stand was clearcut in 1992 on contract 039-87-01. All trees were cut except oak. Multi-poly stand.
3	6122 - Black Spruce	High Density Sapling	7.8	20		Stand was clearcut in 1992 on contract 039-87-01. There were some 1/10th acre clumps retained. There is some cedar regeneration less than 3' tall.
4	429 - Mixed Upland Conifers	Medium Density	24.1	16		Stand was clearcut in 1995 on contract 030-94-01. This stand is a mix of aspen, balm, and spruce. There is also a drain that flows through the stand that had a buffer left on it.
5	6121 - Tamarack	High Density Pole	3.1	96		Good quality tamarack with some low quality cedar.
6	4130 - Aspen	High Density Pole	70.4	55		There are some pockets of oak wilt within this stand.
7	4130 - Aspen	Medium Density Pole	13.9	27		
8	6120 - Lowland Cedar	High Density Pole	28.7	102		Rosebush Creek flows through this stand.
9	4119 - Mixed Northern Hardwoods	Low Density Pole	14.0	98	1-50	Part of this stand was clearcut in 1995 and other areas were cut in 2003. The areas cut in 2003 were part of an oak wilt sale, there were a few epi-centers of oak wilt that were treated. Very little of the area has regenerated, there are some red maple stump sprouts but overall this stand is open. There are some scattered merchantable oak, red maple, and spruce.
10	6129 - Mixed Coniferous Lowland Forest	High Density Sapling	11.2	20		Stand was clearcut in 1992 on contract 039-87-01. There were some 1/10th acre patches left.
11	4130 - Aspen	High Density Pole	35.8	40		Good quality aspen.
12	4123 - Red Oak	High Density Log	68.9	98	111-140	Good quality red oak stand. There are a couple of oak wilt pockets within the stand, south of the peninsula of stand 9.
13	4112 - Maple, Beech, Cherry Association	Low Density Pole	4.0	45	1-50	This area was cut in 2003 as part of an oak wilt sale, there were a few epi-centers of oak wilt that were treated. Very little of the area has regenerated, there are some red maple stump sprouts but overall this stand is open. There are some scattered merchantable oak, red maple, and spruce.
14	4130 - Aspen	High Density Pole	3.9	27		
15	6129 - Mixed Coniferous Lowland Forest	High Density Pole	22.1	102		Rosebush creek flows through the north end of the stand. Good quality tamarack and spruce with poor quality cedar.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	4119 - Mixed Northern Hardwoods	High Density Pole	46.7	80	141-170	Poor quality red maple stand with scattered aspen and oak. There is a lot of dead oak, but it doesn't look like oak wilt, but we will have to make sure.
17	4119 - Mixed Northern Hardwoods	High Density Pole	39.1	81	111-140	Average to poor quality red maple stand with red oak and aspen scattered in.
18	4130 - Aspen	High Density Sapling	37.2	7		Stand was clearcut in 2005 on contract 021-04-01.
19	6120 - Lowland Cedar	High Density Pole	52.2	102		This stand is a mix of black spruce, cedar, and tamarack. There is a two chain strip of good quality cedar along the transition zone to stand, but overall the cedar is poor quality. The spruce and tamarack are dying out due to their age, the stand needs to be harvested now while there is a quality seed source.
21	4191 - Mixed Upland Deciduous with Conifer	High Density Log	18.3	97	141-170	Good quality red oak and white pine.
22	6122 - Black Spruce	High Density Pole	8.9	105		Good quality black spruce, with poor quality cedar.
23	4134 - Aspen, Spruce/Fir	Medium Density	11.8	16		Stand was clearcut in 1996 on contract 023-94-01. The cedar and oak was retained. The stand is filling in with spruce and balm. There are areas of this stand that are lower ground.
24	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	11.5	128		Parts of this stand are higher ground and this stand is a mix of species.
25	4130 - Aspen	High Density Pole	18.5	45		
26	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	12.3	98		This stand is a mix of lowland and upland and there is a wide variety of species.
27	4130 - Aspen	Medium Density Pole	22.5	32		Stand was clearcut in 1977 and prescribed burned in 1980. Very low quality site, should be managed for jack or red pine.
28	4126 - White, Black, N. Pin Oak	Low Density Log	26.8	98		This stand is very low quality as a forested stand and as an opening. There are scattered clumps of pin oak, which is in decline. There is also at least one oak wilt pocket within the stand. A large portion of the stand has pin cherry and hazel brush throughout it. This stand was prescribed burned in 1980. It looks like there was some honeysuckle planted than in the fire line.
29	4126 - White, Black, N. Pin Oak	Medium Density Log	5.1	98		Very poor quality pin oak, which is dying out of the stand.

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
20	6223 - Inundated Shrub Swamp	3.4	No	Unspecified	The Shakey River flows through this stand and it is mostly tag alder.

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

8 – DEDICATED CONSERVATION AREA DETAILS

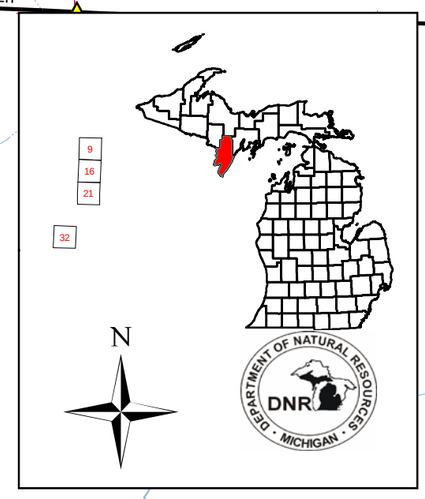
* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

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.

Cover Type & Treatment Map

Compartment: 019
T36N R28W
09 15 21 32
County: Menominee
Unit: Escanaba
YOE: 2014
Acres: 631 GIS Calculated
Examiner: Dustin Salter
Map Revised: 07/19/2012
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
- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Planting (tree species)
- Paved Roads
- Gravel Roads
- Poor Dirt Roads

Type
- Corners

Gates and Berms

Type
- Gate
- Berms
- Stream
- Intermittent Stream
- Lakes and Rivers

Forest Stands

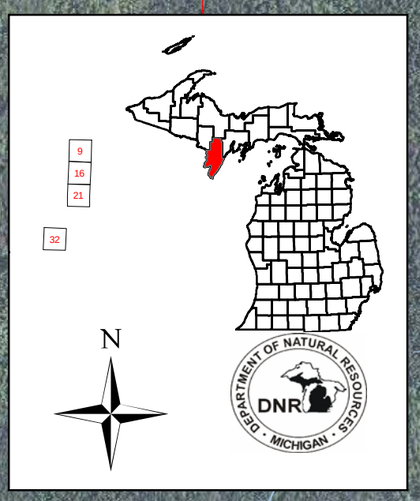
Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 429 - Mixed Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Level 3
- 622 - Lowland Shrub

1 0.5 0 1 Miles

Stand Boundary Map

Compartment: 019
T36N R28W
09 15 21 32
County: Menominee
Unit: Escanaba
YOE: 2014
Acres: 631 GIS Calculated
Examiner: Dustin Salter
Map Revised: 07/19/2012
Map Phase: Pre-Review



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

Legend
- Miris Corners
- Remonumented Section Corners
- Corners

Gates and Berms
Type
- Gate
- Berms

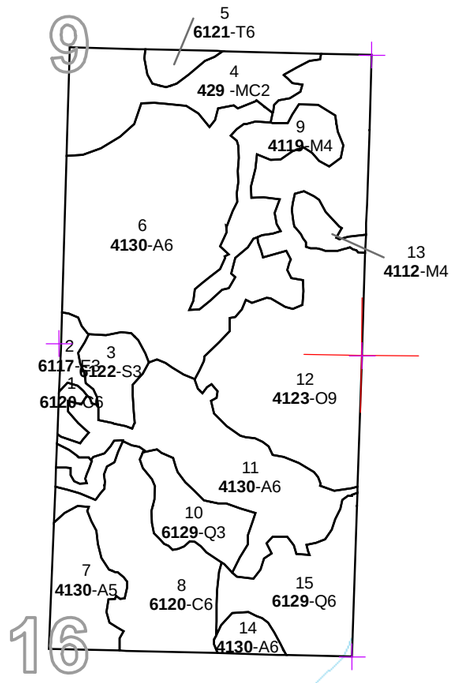
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Stream
- Intermittent Stream
- Stand Boundaries

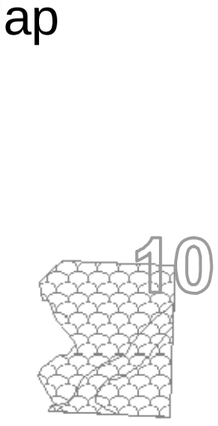
Forest Stands
Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 429 - Mixed Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 622 - Lowland Shrub

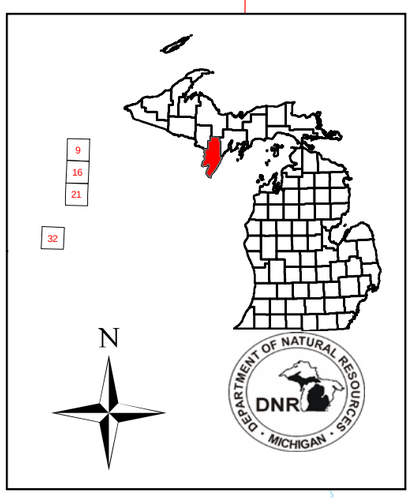
1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

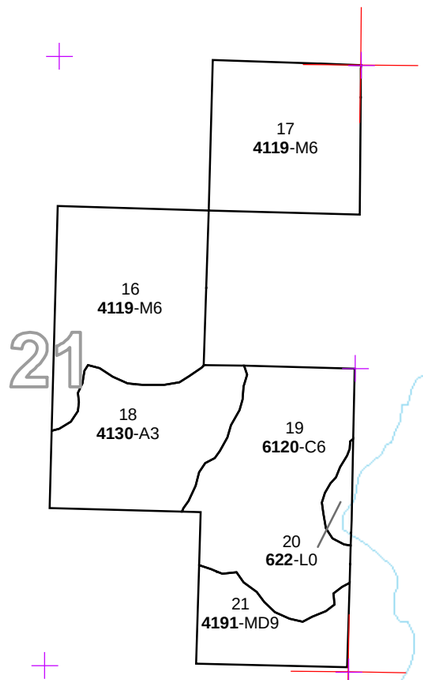
Compartment: 019
T36N R28W
09 15 21 32
County: Menominee
Unit: Escanaba
YOE: 2014
Acres: 631 GIS Calculated
Examiner: Dustin Salter
Map Revised: 07/19/2012
Map Phase: Pre-Review

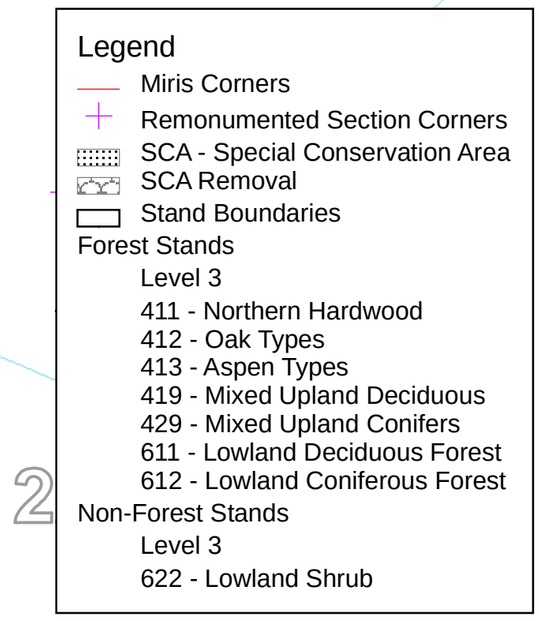


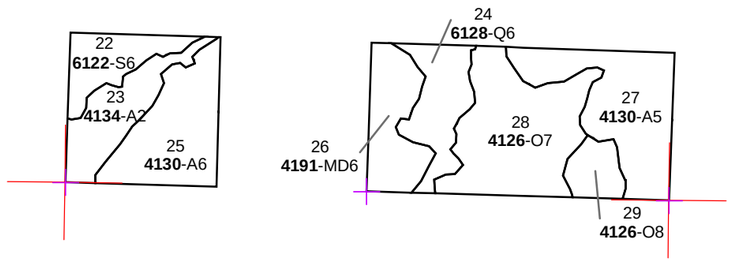




Stand # 23
Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code







1 0.5 0 1 Miles

87°48'0"W 87°47'0"W 87°46'0"W 87°45'0"W 87°44'0"W
45°32'0"N 45°31'0"N 45°30'0"N 45°29'0"N 45°28'0"N