Roscommon Forest Management Unit
Compartment Review Presentation
Compartment #171 Entry Year: 2013
Compartment Acreage: 2745 County: Ogemaw

Revision Date: 8/9/11

Stand Examiner: Jason Hartman

Legal Description: T24N R2E Sections 3 – 7 and T24N R1E Section 12

Identified Planning Goals: Kirtland Warbler Management Area

Management Goals: Maintain current age and species diversity in a range of early and late successional ecosystems as specified by the Kirtland Warbler Management Plan (KWMP).

Soil and Topography: Terrain is flat to gently rolling except for some hillier terrain in Sections 5 and 7. Soils are primarily Grayling, Graycalm. Mancelona, and Menominee sands, and Montcalm loamy sands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Compartment is a fairly solid block of state land with the exception of a few larger parcels. Non-state land in and adjacent to the compartment consists of several larger blocks of U.S. Fish and Wildlife parcels managed for the Kirtland Warbler and numerous smaller wooded parcels containing both seasonal and permanent residences. These smaller private parcels are mostly clustered around the town of Damon. Consumers Energy owns a 300 foot wide strip in Section 3 which contains a major electrical transmission powerline.

Unique, Natural Features: Most younger jack pine stands are occupied KW habitat and there is recent reports of rough fescue within the compartment. High potential for other pine barrens flora and fauna exists throughout the compartment.

Archeological, Historical, and Cultural Features: None known or detected in the compartment but several sites recorded in adjacent compartments

Special Management Designations or Considerations: Kirtland Warbler management

Watershed and Fisheries Considerations: None

Wildlife Habitat Considerations: Maintain as much ecosystem diversity in the compartment as possible given constraints imposed by the KWMP to benefit game species such as deer, grouse, rabbits, and turkeys as well as non-game species. No

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Mississippian Michigan Formation and Marshall

Sandstone. The Michigan is quarried for gypsum and the Marshall has been used as a building stone. The nearest gravel pit is located east of the compartment and potential is thought to be good. The Rose City Fields are located one mile to the south. The fields have produced over 9.3 million BO and 9.9 Bcf gas from the Devonian Richfield Formation and are in secondary recovery operations currently. The main field also produces from the Prairie du Chien, and has produced over 31 Bcf gas and 200,000 BO. Most of the State land is currently leased for oil and gas development.

Vehicle Access: Vehicle access is good via seasonal county roads on each section line as well as DNR recreational trails and forest two-tracks.

Survey Needs: None necessary at this time.

Recreational Facilities and Opportunities: This compartment contains portions of the ORV trail and Route, the MCCC Trail, and the snowmobile trail. Compartment is also heavily used for hunting.

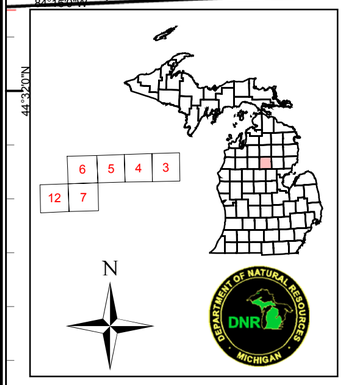
Fire Protection: This compartment has an abundance of jack pine cover types of mostly younger ages and is in the Zone 3 fire dispatch area. Remnants of numerous small and several large jack pine fires can still be seen on the landscape.

Additional Compartment Information: There are currently no KW habitat regeneration plans within the compartment. Proposed treatments include 33 acres of thinning harvests in oak and red pine, 77 acres of shelterwood/seed-tree harvests in mixed pine cover types, 81 acres of final harvests in aspen, jack pine, and mixed pine cover types, and 18 acres of selection cuts in a hardwood stand.

- **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**

Cover Type & Treatment Map



Stand # 23

Stocking Density

(412)0) - A7

Level 3 Level 4 OI Code

Cover Type Code

Compartment 171
T24N, R01E, Sec. 12
T24N, R02E, Sec. 3-7
County: Ogemaw
Unit: Roscommon
YOE: 2013
Acres: 2,701 GIS Calculated
Stand Examiner: Jason Lewicki
Map Revised: 8/15/2011
Map Phase: Pre-Review

Legend

- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Pipe
- Power
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- MCCCT Trails
- ORV Routes
- ORV Trails
- Ski Trails
- Snowmobile Trails
- MCCCT Trail
- Motorcycle (DNR Sticker)
- ORV Route
- ORV Trail
- Ski Trail
- Snowmobile Trail
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)

Forest Stands

Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 629 - Mixed non-forested wetland

Valley Rd
Mapes Rd
Lemon Rd
Lake Rd
S East Dr
Walson Rd
Abbott Rd
Hill Dr
Abbott Lake
North Twin Lake
Silvis Lake
Moccasin Trl
Union Corner Rd
Gilford Ranch Rd
Wangler Rd
G Pordhanck
Frenchie Ln
Inman Rd
Nye Rd
Campbell Rd
County Line Rd
Pole Cat Ln
Tobacco Rd
West Branch Big Creek
Gilford Ranch Trl
N Fairview Rd
Stoney Ridge Rd
Primrose Ln
Unknown 65 4 6
N Dow Rd
Number 208 Rd
McGregor Rd
Cuttin Lake Trl
Monroe St
Tower Rd
MCCCT
Hughes Lake

1 0.5 0 1 Miles

Stand Boundary Map

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

Compartment 171
T24N, R01E, Sec. 12
T24N, R02E, Sec. 3-7
County: Ogemaw
Unit: Roscommon
YOE: 2013
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Legend
- Miris Corners
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Pipe
- Power
- Intermittent Stream/Drain
- Stream
- MCCCT Trails
- ORV Routes
- ORV Trails
- Ski Trails
- Snowmobile Trails
- MCCCT Trail
- Motorcycle (DNR Sticker)
- ORV Route
- ORV Trail
- Ski Trail
- Snowmobile Trail
- Stand Boundaries

Forest Stands
Level 3
- 411 - Northern Hardwood
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Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
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1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

Legend

- Miris Corners
- Remonumented Section Corners

Proposed Special Conservation Areas

- SCA - Special Conservation Area

High Conservation Value Areas

- Kirtland Warbler Habitat
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer

Special Conservation Areas

- Cold Water Streams
- Stand Boundaries

Forest Stands

Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
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Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 629 - Mixed non-forested wetland

84°16'0"W 84°15'0"W 84°14'0"W 84°13'0"W 84°12'0"W 84°11'0"W 84°10'0"W

44°32'0"N 44°31'0"N 44°30'0"N 44°29'0"N

Table 1 – Total Acres by Cover Type and Age Class

Roscommon Mgt. Unit **Compartment 171 Year of Entry 2013**

Jason Hartman : Examiner

Age Class

	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	Total
Aspen	0	88	58	174	76	84	20	0	0	0	0	0	0	0	0	**501**
Herbaceous Openland	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**
Jack Pine	0	295	915	14	53	0	20	0	0	0	0	0	0	0	0	**1297**
Lowland Mixed Forest	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
Lowland Shrub	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Mixed Upland Deciduous	0	78	33	7	0	0	22	0	0	9	0	0	0	0	0	**149**
Natural Mixed Pines	0	0	0	0	0	190	0	12	47	0	0	0	0	0	0	**249**
Northern Hardwood	0	18	20	0	0	0	0	8	0	0	0	0	0	0	0	**47**
Oak	0	0	21	0	0	0	0	0	0	139	0	0	0	0	0	**159**
Red Pine	0	0	0	0	0	0	7	0	0	0	0	0	0	0	11	**17**
Upland Mixed Forest	0	0	249	0	8	0	0	0	0	0	0	0	0	0	0	**256**
Total	**18**	**479**	**1296**	**202**	**137**	**274**	**69**	**20**	**47**	**148**	**0**	**0**	**0**	**0**	**11**	**2701**

Table 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit
Year of Entry 2013

Compartment 171
Total Compartment Acres: 2701

Acres by Treatment Type

Commercial Harvest - 198	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 10	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	49	0	0	54	0	0	**103**
Jack Pine	20	0	0	0	0	0	**20**
Natural Mixed Pines	12	0	23	0	0	0	**35**
Northern Hardwood	0	18	0	0	0	0	**18**
Oak	0	0	0	0	22	0	**22**
Red Pine	0	0	0	0	11	0	**11**
Total	**80**	**18**	**23**	**54**	**32**	**0**	**208**

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	71171020-Cut	54.1	4133 - Aspen, Mixed Pine	High Density Log	47	Harvest	Shelter Wood with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Consider a light shelterwood w/ reserves open enough to allow aspen to regenerate. Leave the areas without aspen out of the sale. Mark mast trees to leave and leave all pine

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	71171025-Cut	11.9	4123 - Red Oak	High Density Log	80	Harvest	Crown Thinning	4121 - Oak, Aspen	Cmpt. Review Proposal

Prescription Specs: Would consider a crown thinning identifying quality red oak crop trees. Leave the large red pine legacy trees and do not spec cut red maple. All stems should be marked to cut.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	71171027-Cut1	9.8	4126 - White, Black, N. Pin Oak	High Density Log	80	Harvest	Crown Thinning	4123 - Red Oak	Cmpt. Review Proposal

Prescription Specs: Would consider a crown thinning identifying quality red oak crop trees. Leave the large red pine legacy trees and do not spec cut red maple. All stems should be marked to cut.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	71171035-Cut	11.8	42260 - Natural Pine, Mixed Deciduous	High Density Log	65	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: CC w/ reserves leaving all red pine and white pine. Mark some oak to leave. Regeneration objective of aspen/oak/jack pine. Plant appropriate pine species if natural regeneration fails.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
39	71171039-Cut	8.8	4132 - Aspen, Jack Pine	High Density Pole	49	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest and regenerate aspen. Leave all red and white pine as well as a few mature large crowned oaks.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
40	71171040-Cut	22.8	42290 - Natural Mixed Pine	High Density Log	78	Harvest	Seed Tree with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Specs: Manage for natural red pine supercanopy with mixed oak/aspen/pine regeneration. Mark to leave variable residual in groups to approximately 25% cover. Some areas could have 30 BA. Some areas with previously established red pine regeneration would have none. Leave all pine less than 4" dbh, but cut all deciduous spp to 2" dbh. Leave small peninsula on west end for some area retention with aspen snags. Buried Enbridge petrol pipeline along road on east edge that may also reduce acres of the sale.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
51	71171051-Cut	18.7	4130 - Aspen	High Density Pole	50	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Specs: Manage for aspen regeration, but as with the other stands this site is much more suited to pine. Leave small finger to the north out of sale for a retention island. Leave all red pine, white pine, and birch and marked oak so that through future rotations the site can gradually revert back to a natrual pine stand with an aspen component.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
55	71171055-Cut	10.6	42210 - Natural Red Pine	High Density Log	75	Harvest	Low Thinning	42211 - Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: small shortwood sale with no chipping with the objective of releasing understory red pine. Mark to cut and thin in the understory as well to promote quality stems leaving 40-80 ft residual. Leave supercanopy red pine and maintain structure. Spec cut jack pine and oak marking a few to leave for wildlife trees while cruising.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
59	71171059-Cut	19.9	42220 - Natural Jack Pine	High Density Log	59	Harvest	Clearcut with Reserves	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Final harvest and make a small shortwood sale with no chipping. Leave jack pine tops and accept scattered natural jack pine regen mixed with oak, cherry, and red pine. Leave all red pine for seed source and supercanopy structure. Could also leave jack pine less than 4" which is present in some areas along the transition between this and the stand to the north. South line is very distinct along plantation edge. Road needs drainage diversions. Trench and plant jack pine if natural regeneration fails. Apply KW nesting protection specs.

Other Comments:

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
72	71171072-Cut	21.0	4130 - Aspen	High Density Pole	36	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest w/ reserves leaving all oak and pine. Manage for aspen regeneration now, but through future rotations this stand should gradually revert back to pine/oak with an aspen component. Either leave out the 3 ac bigtooth aspen stand entirely or mark the sugar maple, some aspen, and some red maple to leave so that it can be blended back into the hardwood stand.

Other Comments:

Next Steps:

Table 3 -- Treatments Prescribed with No Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73	71171073-Cut	18.2	4112 - Maple, Beech, Cherry Association	Low Density Sapling	5	Harvest	Group Selection	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Apply site prep by harvesting all maple and cherry. Harvest with adjacent timbersale. After site prep is completed, trench and plant red pine. Area Biologist would like to interplant acorns with red pine. Interplant acorns within red pine trenches unless funding or acorn availibility fall through.

Other Comments:

Next Steps: Trench and plant red pine.

Total Treatment Acreage Proposed: 207.5

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						

Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

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
71048_OutOfYOE_1-Cut	2.2				Harvest	Low Thinning	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: thin to 120 SF by concentrating on improving the quality of the stand, no retention other than residual RP, save areas heavy to oak understory where possible

Other Comments: cut wiht stand to the west in 71046

Next Steps: manage for utility poles next YOE

71048_OutOfYOE-Cut	4.0			0	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: final harvest for aspen mgmt., mark oak SL tro leave for wildlife mast, mark R/W pine SL for diversity, no retention other than marked leave trees, address green-up concerns on the east side of this stand if still a problem, dormant season cut to promote vigorous sprouting of the older aspen in the stand, any regeneration to a fully stocked stand is acceptable, trench and plant RP if regeneration fails

Other Comments: cut with stand to the west in 71046

Next Steps:

71118_OutOfYOE-Cut	6.6			0	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: final harvest for aspen mgmt. mark or leave all oak for diversity/retention/visuals. buffer low marshy ground on southwest. leave out any wetter areas in the north part of the stand for BMP reasons. leave out areas with heavy R/W pine component for diversity/retention/visuals. Any regeneration of aspen/oak/pine to a fully stocked stand is acceptable. regeneration alternative is to plant red pine if stand is not fully stocked but this is unlikely.

Other Comments: treat with stand to the west in 71117, add proper protection specs to ensure trail staus open to snowmobiles during hauling

Next Steps:

71165_OutOfYOE-Cut	5.1				Harvest	Low Thinning	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: thin to 90-120 SF/Acre so as to enhance old growth/bio-diversity characteristics

Other Comments: stand has a dense A/RM understory which will need to be addressed with appropriate sale specs, save W3 understory where possible, treat stand to the west in 71163when this stand is treated (same stand)

Next Steps:

Total Treatment Acreage Proposed: **17.9**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	High Density Sapling	42.2	9		Natural regen from 2001 Jacobs Fire. Very thick in some areas. Abundant snags. Saw a bald eagle during inventory.
2	42220 - Natural Jack Pine	Low Density Sapling	22.5	6		Scattered natural jack pine that was not planted through.... or was planted and then we did a fuel break burn. Couldnt see trenches with snow. Not a good spot for a fuel break. It divides a managment block. Let it mature.
3	42120 - Planted Jack Pine	Low Density Sapling	131.3	7		Seeded to jack pine in 2004. Sparse in a couple spots, but overall stocking is sufficient. Good natural mosaic to regen.
4	4132 - Aspen, Jack Pine	High Density Pole	6.6	43		Quaking aspen that is declining mixed with jack pine.
5	42120 - Planted Jack Pine	Low Density Sapling	11.3	8		
6	4131 - Aspen, Oak	Medium Density	8.8	7		
7	4130 - Aspen	Medium Density	35.7	7		
8	4116 - Mixed N. Hardwood - Aspen	Low Density Pole	8.1	65		A small piece of upland aspen with supercanopy white pine and white pine understory in the NE piece.
9	4130 - Aspen	High Density Sapling	6.6	18		Good place to manage for a deciduous break along ownership boudaries.
10	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density	15.9	17		Strange treatment shape on old imagery. This may have been roller chopped or bulldozed for a safety zone at some point.
11	4130 - Aspen	Medium Density	5.5	8		
12	4310 - Pine, Oak Mix	High Density Sapling	39.2	17		KW plantation with heavy deciduous component.
13	4311 - Pine, Aspen Mix	High Density Sapling	12.7	17		A clone of aspen in the center was not planted through. Oak and cherry mixed in to the rest of the stand.
14	42120 - Planted Jack Pine	High Density Sapling	96.7	17		KW plantation
15	42120 - Planted Jack Pine	High Density Sapling	62.0	17		
16	4311 - Pine, Aspen Mix	High Density Sapling	50.8	17		Two aspen clones were not planted through.
17	42120 - Planted Jack Pine	Medium Density	40.6	17		More natural regen mixed in along the south edge.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	4130 - Aspen	Medium Density	7.9	7		
19	4131 - Aspen, Oak	High Density Pole	5.8	45		Use data from comp to west. Same stand.
20	4133 - Aspen, Mixed Pine	High Density Log	54.1	47		Most jack pine has already fallen apart and the aspen has peaked for the site. The area along the north line is almost solid oak/pine with little aspen. Most monarch red pine have fire scars.
21	42120 - Planted Jack Pine	Medium Density	58.1	14		Has a little bit of deciduous component to the NW. Mix of thick natural and planted in some places. FTP says rollerchop and plant JP. Chopping may have helped the natural component. Snow too deep to tell if it was seeded instead.
23	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density	21.3	10		Part of an old fuel break that wasn't maintained. More oak to the north with a small clone of aspen as well.
24	4130 - Aspen	High Density Sapling	5.6	7		
25	4123 - Red Oak	High Density Log	11.9	80	81-110	Nice red oak located on northeast facing slope. Some of the oak poles may be from a past fire. There is a fairly open understory that is heavily browsed.
26	42120 - Planted Jack Pine	High Density Sapling	78.5	14		
27	4126 - White, Black, N. Pin Oak	High Density Log	9.8	80	141-170	Top of the ridge, but lower quality than the stand to the east due to aspect. Red maple understory is not as strong and there is a higher proportion of hybrid oak especially on the southern end. Several legacy red pines with large fire scars.
28	4130 - Aspen	High Density Sapling	5.2	14		
29	42120 - Planted Jack Pine	High Density Sapling	40.5	7		
30	4199 - Other Mixed Upland Deciduous	Medium Density	33.2	18		More QA to the west. The southeast corner is more immature. Look at 1998 DOQQ.
31	4125 - Black, N. Pin Oak	High Density Sapling	12.0	18		Natural jack pine regen in the landing area to the south. There is a distinct elevation change where the oak stops. Not big enough for it's own stand. These stands were once part of a fuel break that wasn't maintained.
32	42120 - Planted Jack Pine	High Density Sapling	15.6	16		This stand and the one to the north were planted after the large stands to the northwest. Look at 1998 DOQQ.
33	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	8.1	16		This stand and the one to the south were planted after the large stands to the northwest. Look at 1998 DOQQ. is piece has alot of deciduous mixed into the jack pine canopy.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	4131 - Aspen, Oak	High Density Log	15.7	34		Could not find sale records. Has some dense oak stump sprouts on the top of the ridge. Dense aspen to southeast.
35	42260 - Natural Pine, Mixed Deciduous	High Density Log	11.8	65		Older aspen along the road. A couple different ages of jack pine
36	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	63.3	14		Ridge with higher deciduous component than the rest of this KW area.
37	4125 - Black, N. Pin Oak	High Density Sapling	8.8	18		Includes some small pieces of jack pine plantation that are connected to the stand to the north.
38	4130 - Aspen	High Density Sapling	19.0	15		
39	4132 - Aspen, Jack Pine	High Density Pole	8.8	49		Poor quality quaking aspen mixed with natural pine. Even lower quality with more jack pine in the southern piece.
40	42290 - Natural Mixed Pine	High Density Log	22.8	78	81-110	Natural two-aged pine stand with jack pine that is falling apart. West end has more quaking aspen is also not healthy. At 47 yrs it is off-site. Some parts of the stand may have had an oak salvage, but there were no records.
41	42210 - Natural Red Pine	Medium Density Pole	6.7	59	1-50	Thinned heavy in 1996. Several ages of red pine present. Natural stand.
42	42121 - Planted Jack Pine, Mixed Deciduous	Low Density Sapling	47.2	7		
43	4130 - Aspen	High Density Pole	8.8	47		Quaking aspen on upland lowland transition. Wetter site to the east mixed with red maple where the aspen in not doing well. Drier to the west where it is mixed with red pine and some white pine. It is better quality to the west, but some of the butts are starting to develop wrot. Definitely more of a pine site. Would be good to treat before the pine understory gets more advanced.
44	42290 - Natural Mixed Pine	High Density Pole	28.1	47		Two-aged stand where the poletimber accounts for the majority. Old OI says that it was a diameter limit cut from the 70's. Most red pine and oak was probably left. Includes a valley along the two-track that is heavier to jack pine than the hills on both sides. The southern piece has more oak and red pine than the rest of the stand.
45	4131 - Aspen, Oak	High Density Sapling	24.7	4		Less aspen around landing to sw and along eastern line
46	4310 - Pine, Oak Mix	High Density Sapling	146.2	17		Warbler plantation that was established through deciduous regeneration. Not very good KW ground. It was likely originally a red pine/jack pine stand with oak understory and we tried to convert it to KW plantation. Some areas have natural jack pine regeneration mixed in. Some parts are heavy oak regeneration, including a patch to the southeast that was not trenched through.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	4130 - Aspen	High Density Pole	16.2	35		Nice quality in parts
48	42260 - Natural Pine, Mixed Deciduous	Medium Density Log	24.6	78	81-110	Two-aged stand where the older age still comprises the feature stand. Mostly white pine to the east and red pine with mixed oak along a dry ridge to the west. Used age from nearby red pine. Several of the original monarchs are present and are much older, but a good proportion of the main canopy fits into this age class.
49	42120 - Planted Jack Pine	Medium Density	79.3	17		KW plantation
50	42290 - Natural Mixed Pine	High Density Pole	162.1	46		Scattered supercanopy red pine (18") throughout as well as some areas that are red pine dominated in the northeast corner and along the southern line. There is also a well scattered cohort of older jack pine, but the overall stand is still immature. There is a heavy oak understory in some areas with dense oak saplings as part of the canopy in the north central portion. A large old railroad grade parallels the southern edge and junctions with another railroad grade from the south in the southeast corner of the stand. There may be some archeological potential in that corner. Site conditions don't seem to indicate PvCd ground. Things were partially snow covered, but wasn't able to find any reindeer lichen and the it was apparent that the fern and blueberry cover was relatively thick. The forested species composition and surrounding landsape also support the indication that this may not be a good location for KW habitat management.
51	4130 - Aspen	High Density Pole	18.7	50		Poor quality quaking aspen on north end mixed with some pine. Better quality to the south mixed with red maple, but still ready.
52	4199 - Other Mixed Upland Deciduous	Low Density Sapling	49.7	4		Sale closed April 2006. Decent stocking of oak regeneration with some aspen in the center and jack pine around the landings. Lower quality to the northeast with more oak and sedge.
53	4119 - Mixed Northern Hardwoods	Medium Density	20.4	14		Oak clear-cut from 1996. Dense red maple stump sprouts on south end. More oak regeneration mixed with cherry and jack pine to the north.
54	4199 - Other Mixed Upland Deciduous	High Density Pole	22.4	50		On the transition from upland to lowland. Has some ash and balsam along the swamp edge and a small clump of large sugar maple where the road currently meets the wetland. It transitions to more aspen and oak to the north and southwest. Has some scattered supercanopy white pine throughout.
55	42210 - Natural Red Pine	High Density Log	10.6	Uneven Age	51-80	Natural 2-3 aged red pine stand mixed with scattered mature jack pine. BA ranges from 60-100.
57	4122 - Oak, Pine	Medium Density Log	108.8	89	51-80	Natural red pine dominating in the center area spread along the road with big oak through the rest of the stand. Very heavy oak regeneration throughout. Some jack pine regeneration along an old skid trail to the northwest.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	42220 - Natural Jack Pine	High Density Pole	14.3	28		Natural fire origin jack pine stand with scattered seed trees still present. Scattered red pine mixed in mostly along south end. One big monarch has to be close to 200 yr old.
59	42220 - Natural Jack Pine	High Density Log	19.9	59		Solid J9 in the eastern portion with more oak and red pine to the west and and a small immature open pocket in between.
60	6130 - Fir, Aspen, Maple	High Density Pole	6.7	25		Southwest corner is mostly birch/fir. Stand from comp to south dips into the east edge. The northwest portion is a mix of large white pine and hemlock and the central portion is mostly tag alder. None of the seperate areas are large enough to be their own stand.
61	42120 - Planted Jack Pine	High Density Pole	53.4	33		Straight row jack pine plantation. Scattered red pine supercanopy on west side.
62	4131 - Aspen, Oak	High Density Pole	79.7	25		Heavier red maple, birch, and fir to the southwest and oak/jp to the northeast. Scattered red pine and white pine left from previous sale. Old skid trails going everywhere.
63	4130 - Aspen	Medium Density Pole	1.4	55		Small 1-2 ac aspen clone that is falling apart and may be worth regenerating depending on what other stands need treating.
64	4199 - Other Mixed Upland Deciduous	Low Density Sapling	27.8	5		Winter cut in 2006, but still could have some regeneration problems. Heavy browse in some locations. Sparse at west side. Aspen clones dominate the north central portion.
66	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	352.0	16		KW plantation that continues onto PVT and USFWS to the east. The private 190 ac parcel is enrolled in Conservation Easement through Headwaters Conservancy.
67	4130 - Aspen	High Density Pole	22.8	36		Appears to extend into the compartment to the south.
68	4130 - Aspen	Medium Density Pole	27.3	15		
69	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	6.8	27		
70	4130 - Aspen	High Density Pole	24.2	27		Poor enough site where red maple barely present.
71	4311 - Pine, Aspen Mix	High Density Pole	7.5	36		Aspen mixed with red pine and white pine to the east. Jack pine to the west in a depression that was probably a borrow pit from when the utility line was developed.
72	4130 - Aspen	High Density Pole	21.0	36		Poor quality quaking aspen with a couple of oak ridges and a 3 ac bigtooth aspen stand to the southeast that was once part of the northern hardwoods to the east. Contains 3 dry drainages that comprise the headwaters running toward Silvis Lake.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
73	4112 - Maple, Beech, Cherry Association	Low Density Sapling	18.2	5		Severe regen failure from 2006 clear-cut. Stand was previously damaged from 1987 Damon Fire. Some pockets of white pine regeneration on the eastern perimeter. More red maple and cherry saplings on the western perimeter. Rolling terrain with a two track going up the drainage in the center.
74	4130 - Aspen	High Density Pole	26.4	27		
75	4199 - Other Mixed Upland Deciduous	High Density Log	9.4	89	111-140	Nice northern red oak mixed with old aspen to the north tranisitions toward a solid northern hardwood stand on the south end. Seeps throughout with 3 main drainages flowing east toward Silvis Lake.
76	42120 - Planted Jack Pine	High Density Sapling	23.4	17		Part of a larger KW stand located in the compartment to the south.
77	4131 - Aspen, Oak	High Density Sapling	35.3	24		Stand burned in 1987. There was a salvage done on the western half. There is more jack pine regen in the southwest portion.
78	4126 - White, Black, N. Pin Oak	Medium Density Log	8.2	89		Severe fire scars on oaks from Damon Fire 1987. Most butt logs are wrecked. Understory is mostly red maple to the east and black cherry to the west.
79	4131 - Aspen, Oak	High Density Sapling	8.8	24		Stand burned in the Damon Fire of 1987. Scattered supercanopy oak with fire scars.

6 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
22	310 - Herbaceous Openland	5.3	N\A	Unspecified	
56	629 - Mixed non-forested wetland	6.4	N\A	Unspecified	
65	3102 - Grass	6.0	No	Unspecified	

Data updated before 10:00 AM

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.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.