Gladwin Forest Management Unit
Compartment Review Presentation
Compartment 114 Entry Year: 2012
Compartment Acreage: 1,316 County: Midland

Revision Date: Drafts: 2) September 29, 2010. 1) September 10, 2010.

Stand Examiner: Mark Reichel

Legal Description: T 14N, R 02W, Sections 19-23, 28, 29, 32, 33

Identified Planning Goals ('Management Area' or 'RMU', if applicable): None

Management Goals: Aspen forest types, upland and lowland, comprise 56% of the compartment's cover. In addition to the 25 operable acres of aspen over 50 years old, 152 acres of 40 year old aspen will be harvested early in order to achieve a sustained yield and to maintain aspen in this compartment. There is currently only 5 acres of coniferous forest types in this compartment; 42 acres of bracken fern upland will be planted to jack pine.

Soil and Topography: Salt Creek runs through the middle of this compartment, and the Chippewa River along the northeast corner. Numerous shallow creeks and drainages run through the compartment into these rivers, mostly the Salt River. Three of these drainages are large, broad wetland complexes, including lowland hardwoods. 37% of the compartment is lowland cover types. Most of the compartment consists of poorly drained Kingsville loamy fine sand (40-45%), and somewhat poorly drained Pipestone sand (40-45%). Kingsville soils can only be harvested during dry/frozen conditions and have high windthrow potential. Pipestone sands have fair forest productivity due to low water holding capacity but a high seasonal water table. There are small, isolated areas of even wetter Adrian Muck and Kinross Mucky sand, as well as Belleville loamy sand that comprise the remaining 10% of the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This is a fragmented compartment, with 4 separate parcels spread over 9 sections, with over 16 miles of private land interface and 120 acres isolated by private land on all sides. Almost all of the adjacent private land is forested, and there are a large number of mostly year round private residences along the numerous county roads in the area, especially along Salt River Road and Coleman Road. Private parcels along these roads are small, while private holdings around the rest of the compartment are still "larger" (40-80 acres). Very few of these residences are immediately adjacent to state land. There was very little illegal or unauthorized activity in the compartment; there was almost no ORV abuse or trash dumping, and only 2 illegal hunting blinds were noted during inventory. Exceptions: Trucks damaging road coming off Geneva Road into SE corner of section 20: this road should be bermed off, and there is a significant trespass in stand 84.

Unique, Natural Features: Wood turtle sited in 1996 on Salt River Road near Salt Creek by MNFI, but its range (polygon) is not within compartment.

Archeological, Historical, and Cultural Features: HAL concern in section 23 but no timber sales within 2-3 miles of area.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: This compartment is dominated by aspen forest types. Deer and grouse hunting are popular in this area. The aspen component will be maintained and increased when possible for wildlife species. The area will continue to benefit from species diversity within stands. Oak species where present will be retained in all timber harvests this year of entry.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of Lacustrine (lake) sand and gravel. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Jurassic Red Beds and the Pennsylvanian Saginaw Formation. The Saginaw Formation is used for clay/shale in other areas of the State. This area is predominantly sand, and gravel potential in the compartment is considered limited. This area is along the south edge of Mt. Pleasant Field. The field was discovered in 1951, and has produced over 29 million BO from the Dundee formation. Several old leases, in the western end of the compartment, are still in effect, held by production from the field. Most of the compartment is leased for oil and gas development.

Vehicle Access: The compartment lies a mile south of State Highway 20 and there is a good system of paved (Coleman, Salt River and Geneva Roads) and good quality dirt roads in the vicinity of the compartment. But these roads only touch on very small portions of each state parcel, and generally do not connect to good quality “two tracks” on state land. There are only two good quality “two tracks” in the entire compartment; access within the majority of the compartment is over roads that have significant seasonally wet areas at some point, and some areas in sections 32 and 33 may not be accessible.

Survey Needs: According to Gladwin F.M.U.’s Survey Corner Records Book, there is only one monument to establish the North-South quarter line of section 32, and there are no monuments for the south 1/16 line of section 21. Timber sale boundaries against private land will run along portions of both these lines.

Recreational Facilities and Opportunities: The primary recreational use of the compartment is grouse and deer hunting.

Fire Protection:

Additional Compartment Information: None

Cover Type & Treatment Map

Compartment 114
T14N, R02W, Sec. 19-23, 28,29,32,33
County: Midland
Unit: Gladwin
YOE: 2012
Acres: 1,400 GIS Calculated
Stand Examiner: Mark Reichel
Map Revised: 10/20/2010
Map Phase: Pre-Review

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

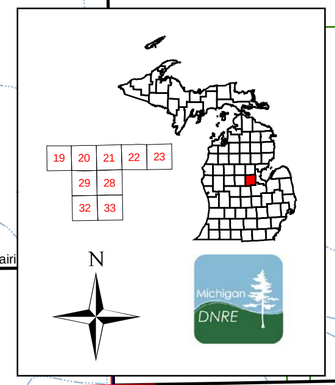
Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments
- Clearcut (w/Reserves, Patch/Strip)
- Planting (tree species)

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 611 - Lowland Deciduous Forest

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparsely Vegetated



1 4130-A3 | 2 6112-P3 | 3 4130-A3 | 4 6113-E9 | 5 6115-E1 | 6 4130-A2 | 7 6113-E3 | 8 623-N0 | 9 4130-A5

12 310-G0 | 13 310-G0 | 14 4199-MD1 | 15 6119-E1 | 16 4220-W5 | 19 310-G0 | 23 622-L0 | 27 790-X0 | 29 629-L0 | 31 6119-E6 | 34 310-G0

10 4199-MD6 | 11 6112-P2 | 17 6112-P6 | 18 4130-A3 | 20 623-N0 | 21 4130-A3 | 22 6113-E6 | 24 4199-MD3 | 25 622-L0 | 26 622-L0 | 28 6117-E6 | 30 4119-M4 | 32 4130-A9 | 35 4139-A6 | 38 310-G0 | 40 4131-A1 | 44 6114-E2

67 6112-P5 | 71 6112-P3 | 73 4130-A6 | 74 6113-E6 | 75 4199-MD2 | 76 790-X0 | 77 4137-A3 | 78 790-X0 | 79 4131-A6 | 80 4130-A6 | 81 310-G0 | 82 4130-A3 | 83 500-Z0 | 84 4130-A9 | 85 310-G0

62 4131-A3

33 4130-A5 | 36 6115-E5 | 37 6112-P6 | 39 4130-A5 | 41 6119-E9 | 42 4130-A5 | 43 4130-A6 | 45 4139-A6 | 46 623-N0 | 47 622-L0 | 48 6113-E5 | 49 6119-E6 | 50 6112-P6 | 51 6112-P1 | 52 622-L0 | 53 623-N0 | 54 4130-A6 | 55 622-L0 | 56 623-N0 | 57 4130-A6 | 58 4139-A5 | 59 4130-A5 | 60 6119-E1 | 61 622-L0 | 63 6119-E9 | 64 6113-E6 | 65 623-N0 | 66 622-L0 | 68 6119-E6 | 69 6112-P6 | 70 623-N0 | 72 4130-A6

Primrose Rd | W Greendale Ct | W Bay City Rd | S Coleman Rd | Vasold Rd | N Lakeside | S Pure Rd | S Geneva Rd | W Prairie | Prairie Rd | Chippewa River | S Chippewa River Rd | W Miller Rd | S Greendale Rd | S Dickenson Rd | Salt River Rd | Gordonville Rd | Little Salt River | S Alamando Rd | W Stewart Rd | Onion Creek | S Gosoo | E Deerfield Rd | Deerfield Rd | Potter Creek | W Dopp Rd | E Millbrook Rd | W Bradford Rd

84°37'0"W | 84°36'0"W | 84°35'0"W | 84°34'0"W | 84°33'0"W | 84°32'0"W
43°35'0"N | 43°34'0"N

1 | 0.5 | 0 | 1 Miles

Stand Boundary Map

Compartment 114
T14N, R02W, Sec. 19-23, 28,29,32,33
County: Midland
Unit: Gladwin
YOE: 2012
Acres: 1,400 GIS Calculated
Stand Examiner: Mark Reichel
Map Revised: 10/20/2010
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
- Paved Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Stand Boundaries

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 611 - Lowland Deciduous Forest

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparsely Vegetated

1 0.5 0 1 Miles

N

Michigan DNRE

Dedicated & Proposed Special Conservation Area Map

Compartment 114
T14N, R02W, Sec. 19-23, 28,29,32,33
County: Midland
Unit: Gladwin
YOE: 2012
Acres: 1,400 GIS Calculated
Stand Examiner: Mark Reichel
Map Revised: 10/20/2010
Map Phase: Pre-Review

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

Legend

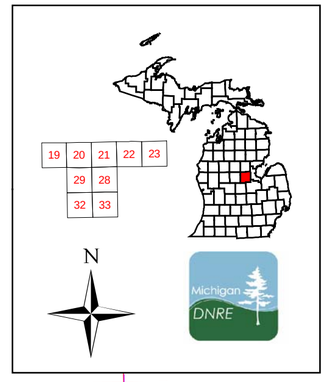
- Miris Corners
- Remonumented Section Corners

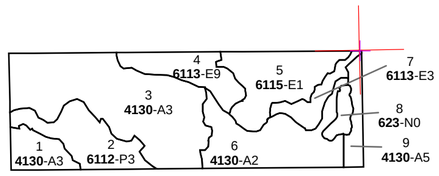
Proposed Special Conservation Areas
- SCA - Special Conservation Area
- SCA Removal

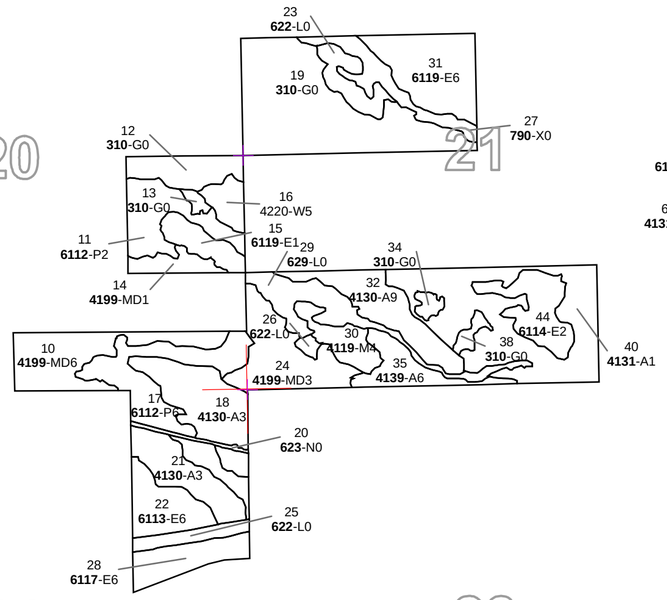
Dedicated Special Conservation Areas
- Cold Water Streams
- Stand Boundaries

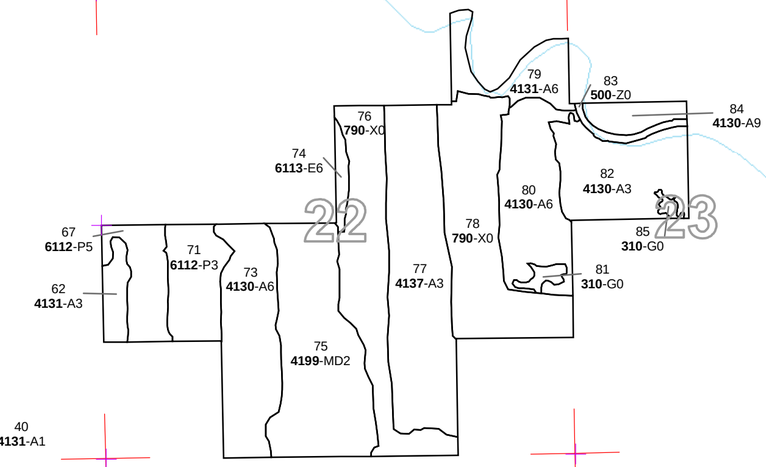
Forest Stands
- Level 3
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 422 - Natural Pines
  - 611 - Lowland Deciduous Forest

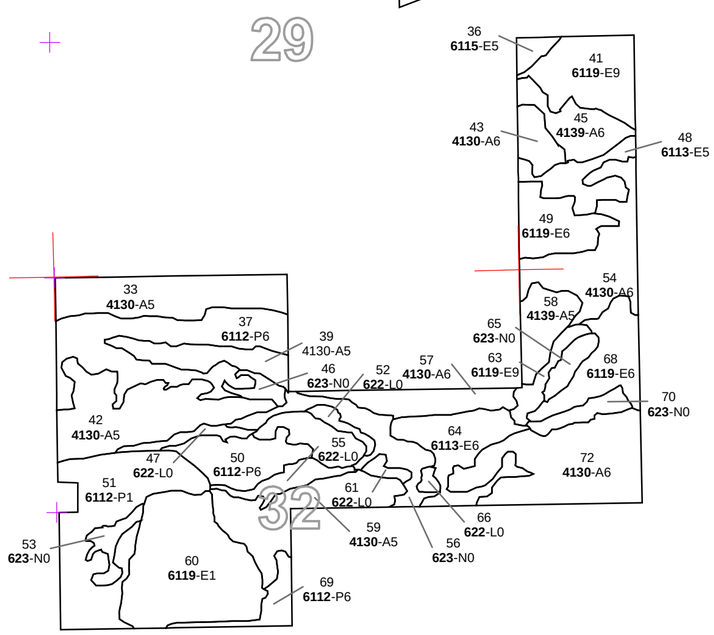
Non-Forest Stands
- Level 3
  - 310 - Herbaceous Openland
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
  - 629 - Mixed non-forested wetland
  - 790 - Other Bare/Sparsely Vegetated











1 0.5 0 1 Miles

84°37'0"W 84°36'0"W 84°35'0"W 84°34'0"W 84°33'0"W 84°32'0"W
43°35'0"N 43°34'0"N

Table 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit **Compartment 114 Year of Entry 2012**

Data updated before 10:00 AM

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	20	78	79	127	193	0	0	20	25	8	0	0	0	11	**560**
Bare/Sparsely Vegetated	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**99**
Herbaceous Openland	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**61**
Lowland Aspen/Balsam Poplar	0	38	32	36	15	57	0	0	0	0	0	0	0	0	0	**179**
Lowland Deciduous	0	0	61	11	42	17	0	35	36	3	0	0	0	0	21	**227**
Lowland Shrub	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**42**
Marsh	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**35**
Mixed Upland Deciduous	0	0	59	38	0	0	0	0	0	0	0	0	0	0	0	**97**
Northern Hardwood	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
White Pine	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	**5**
Total	**240**	**59**	**231**	**171**	**185**	**266**	**0**	**40**	**56**	**28**	**8**	**0**	**0**	**0**	**31**	**1316**

Table 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit **Compartment 114 Year of Entry 2012**

Data updated before 10:00 AM

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	20	78	79	127	193	0	0	20	25	8	0	0	0	11	**560**
Bare/Sparsely Vegetated	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**99**
Herbaceous Openland	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**61**
Lowland Aspen/Balsam Poplar	0	38	32	36	15	57	0	0	0	0	0	0	0	0	0	**179**
Lowland Deciduous	0	0	61	11	42	17	0	35	36	3	0	0	0	0	21	**227**
Lowland Shrub	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**42**
Marsh	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**35**
Mixed Upland Deciduous	0	0	59	38	0	0	0	0	0	0	0	0	0	0	0	**97**
Northern Hardwood	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
White Pine	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	**5**
Total	**240**	**59**	**231**	**171**	**185**	**266**	**0**	**40**	**56**	**28**	**8**	**0**	**0**	**0**	**31**	**1316**

Table 2 – Proposed Treatment Summaries

Data updated before 10:00 AM

Gladwin Mgt. Unit
Year of Entry 2012

Compartment 114
Total Compartment Acres: 1316

Acres by Treatment Type

Commercial Harvest - 152	Site Prep - 0	Tree Planting - 42	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	118	0	0	0	0	0	**118**
Lowland Aspen/Balsam Poplar	34	0	0	0	0	0	**34**
Total	**152**	**0**	**0**	**0**	**0**	**0**	**152**

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
32	73114032-FH	15.5	4130 - Aspen	High Density Log	81	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest 2" spec DORMANT SEASON NON-NEGOTIABLE; use rutting spec for small % of hummocky (wet) area. Leave birch, cherry, white pine, oak for retention by BA via spec. Will need tube to cross narrow but undefined drainage, and ROAD IS IMPASSABLE DURING WET PERIODS.

Other Comments: Natural regeneration expected. If regen were to fail, plant jack pine by seeding.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33	73114033-FH	25.7	4130 - Aspen	Medium Density Pole	40	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest. Leave all white pine, pin and black cherry for retention. In addition, exclude inoperably wet areas from sale unit when marking sale unit boundary. These areas will serve as retention by area.

Other Comments: Natural regeneration expected. If regen were to fail, plant jack pine. Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Trace of pin cherry, white pine, black cherry in canopy.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	73114035-FH	9.1	4139 - Aspen, Mixed Deciduous	High Density Pole	81	Harvest	Clearcut with Reserves	Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Final harvest with 8" spec on oak, and leave birch and white pine for retention using spec. Want to cut non-merchentable maple (2" spec) to try and get as much aspen back as possible. USE DORMANT SPEC NON-NEGOTIABLE. Aspen is decadent and is not dominant in this part of compartment.

Other Comments: Private boundary at south appears to be posted onto state about 50 ft. Natural regeneration expected. If regen were to fail, plant jack pine by seeding.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	73114037-FH	33.7	6112 - Lowland Aspen	High Density Pole	40	Harvest	Clearcut with Reserves	Lowland Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest during dry/frozen conditions. Place red line to exclude some wet areas from cutting unit for retention by area. The southeastern, northeastern and northwestern edges have some of the wetter terrain. Also leave all trace species by specification, for retention.

Other Comments: Wet but operable. Lot of it hummocky and some drier with about 15-20% shallow wet depressions. Trace of white pine, swamp white oak, black cherry, jack pine, pin oak and elm in canopy. Natural regeneration expected. Plant jack pine if regen fails.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
39	73114039-FH	11.6	4130 - Aspen	Medium Density Pole	40	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest. Leave all white pine, pin cherry and black cherry, by spec., as retention by BA. In addition, leave 3% of stand area for retention by either excluding from sale unit when marking unit boundary, or by marking retention islands with red paint.

Other Comments: Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Trace of pin cherry, white pine, black cherry in canopy. Natural regeneration expected. If regen were to fail, plant jack pine.

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
42	**73114042-FH**	31.7	4130 - Aspen	Medium Density Pole	40	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest. Leave all White pine, pin and black cherry by spec, as retention. For retention by area, exclude drainages from sale unit when marking unit boundary.

Other Comments: Natural regeneration expected. If regen were to fail, plant jack pine. Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Trace of pin cherry, white pine, black cherry in canopy.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
54	**73114054-FH**	24.7	4130 - Aspen	High Density Pole	40	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest. Leave all paper birch and white pine by spec as retention; mark with green paint white oak to reach a total of 3% retention by basal area.

Other Comments: Per WLD, obtain permission from Midland County to leave one culvert in on either north or south side of road, and construct dirt parking lot surrounded by berm for hunters. Expect natural regeneration. If regeneration is inadequate, plant jack pine.

Next Steps:

Total Treatment Acreage Proposed: **151.8**

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
12	NF_73114012-Plant	8.1	Non-Forested		0	Tree Planting	Hand Plant	Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: Machine trench and hand plant jack pine.

Other Comment: Failed aspen harvest which was accessed via private land. Will not regenerate in next decade. If stand was worth harvesting, it is worth reforesting via private access. Pipestone soil.

Next Steps: Write planting FTP.

Limiting Factor and No Treatment Reason: 2A: Adjacent landowner denies access

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19	NF_73114019-Plant	33.9	Non-Forested		0	Tree Planting	Hand Plant	Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: Factor limited for access. If can obtain access over adjacent private: Machine trench and hand plant jack pine. Otherwise leave as a natural opening per Wildlife Division.

Other Comment: Severe deer browse. Scattered cherry, pin oak, white pine, red maple. This stand and stand 12 will not regenerate in next decade. Failed aspen harvest which was accessed via private land. If stand was worth harvesting, it is worth reforesting via private access. Pipestone soil.

Next Steps: Write Planting FTP.

Limiting Factor and No Treatment Reason: 2A: Adjacent landowner denies access

Total Treatment Acreage Proposed: 41.9

Data updated before 10:00 AM

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2012

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

Prescription Specs:

Other Comments:

Next Steps:

Total Treatment Acreage Proposed: **0**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	High Density Sapling	6.4	25		more hummocky and slightly wetter than st 6
2	6112 - Lowland Aspen	High Density Sapling	13.4	25		Tr of WP, SWO. barely lowland; hummocky 40%, 60% has about 15% scattered moss, honeysuckle
3	4130 - Aspen	High Density Sapling	40.6	25		
4	6113 - Lowland Maple	High Density Log	10.2	74		Trace of swamp white oak, tamarack, black cherry, paper birch and yellow birch.
5	6115 - Lowland Ash	Low Density Sapling	16.7	30		Succeeding to lowland hardwoods. Southwest portion drier, with slightly larger and denser timber. Trace of birch.
6	4130 - Aspen	Medium Density	20.1	4		
7	6113 - Lowland Maple	High Density Sapling	5.2	35		
9	4130 - Aspen	Medium Density Pole	4.6	74		Trace of white oak. Aspen falling apart. Good to fair stand of oak, maple, birch replacing aspen. Le it convert and serve as buffer for 2006 harvest and for wet meadow (stand 8).
10	4199 - Other Mixed Upland Deciduous	High Density Pole	19.1	23		Trucks bypassing flooded area of road causing severe rutting. Trace of green ash and elm in canopy, pin cherry and swamp white oak in underst.
11	6112 - Lowland Aspen	Medium Density	13.4	16		60-65% lowland sparse (A1/E1). 40% good dense aspen. Trace of elm (overstory) and white pine (under).
14	4199 - Other Mixed Upland Deciduous	Low Density Sapling	4.8	16		Formerly part of st 11: Came back much sparser. Varies from xeric to very wet.
15	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	6.7	16		Clearcut '95 in same unit as stands 11 and 14 and didn't come back well. Much wetter than stand 11. Aspen came back ok in portion of center. swamp grass and alder ground cover.
16	42200 - Natural White Pine	Medium Density Pole	4.7	68		Hardwood removed 2006. Much sparser at N end. Trace of red maple, white pine, black oak, paper birch and jack pine in understory.
17	6112 - Lowland Aspen	High Density Pole	22.9	23		Swamp grass in places, light honeysuckle cover. Trace of white pine, pin cherry, swamp white oak in understory.
18	4130 - Aspen	High Density Sapling	19.0	23		Trace of swamp white oak and white pine in overstory; white pine, alder and jack pine in understory.
21	4130 - Aspen	High Density Sapling	12.7	24		Trace of white pine, pin cherry in canopy

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	6113 - Lowland Maple	High Density Pole	11.3	24		Trace of black ash in canopy, tag alder in understory.
24	4199 - Other Mixed Upland Deciduous	High Density Sapling	18.6	23		Dissected by drainage. wet areas. Trace of swamp white oak, white pine in overstory, white pine in underst
28	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.0	73		40% operable, 10% would be buffer for house at E end. Operable area insufficient volume. About 550 feet in from east end is not operable because would have to skid through very wet area in middle: is also adjacent to house and should be left as buffer. Trace of white oak, pin oak and yellow birch (canopy) and red oak, swamp white (underst).
30	4119 - Mixed Northern Hardwoods	Low Density Pole	7.2	24		trace of white pine in overstory
31	6119 - Mixed Lowland Deciduous Forest	High Density Pole	20.0	31		Same as st 19, which didn't regenerate in 2006. Cut dormant season when it reaches rotation age or will convert to lowland non-forested. Access across private will have to be negotiated at that time.
32	4130 - Aspen	High Density Log	15.5	81		Same stand last YOE as stand 33, separated by L/N type. Lot of good aspen/maple, volume and quality, though aspen getting little bit decadent. Trace of white pine and black cherry (canopy) and white pine and pin oak (subcanopy).
33	4130 - Aspen	Medium Density Pole	25.7	40		Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Candidate for early harvest if needed but could have some sawlogs if harvested at rotation age. Trace of pin cherry, white pine, black cherry in canopy.
35	4139 - Aspen, Mixed Deciduous	High Density Pole	9.1	81		Private boundary at south appears to be posted onto state about 50 ft- survey? Trace of white pine in over and understory.
36	6115 - Lowland Ash	Medium Density Pole	2.8	71		Floodplain of Salt River. Heavy grass/forb ground cover. Nice ash forest. Between Salt River and Private.
37	6112 - Lowland Aspen	High Density Pole	35.8	40		Wet but operable. Lot of it hummocky and some drier with about 15-20% shallow puddles. Candidate for early harvest but would have some sawlogs if held to rotation age. This stand broken out of old OI stand 23. Trace of white pine, swamp white oak, black cherry, jack pine, pin oak and elm in canopy.
39	4130 - Aspen	Medium Density Pole	11.6	40		Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Candidate for early harvest if needed but could have some sawlogs if harvested at rotation age. Trace of pin cherry, white pine, black cherry in canopy.
40	4131 - Aspen, Oak	Low Density Sapling	39.8	15		Formerly 3 stands in OI. Lot of oak seedlings heavily browsed by deer.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	6119 - Mixed Lowland Deciduous Forest	High Density Log	20.6	Uneven Age		Barbed wire on state 50' S of river. Along river stand is trute M type with hemlock and large red oak. Large oak with heavy maple understory. Barely lowland- would be dry in august. Some very wet areas. Older and much more canopy log sized than stand 35. Trace of white oak, paper birch, black ash, white ash, beech cottonwood and swamp white oak in canopy, hemlock, beach, sugar maple, white pine, blue beech in understory.
42	4130 - Aspen	Medium Density Pole	31.7	40		Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Candidate for early harvest if needed but could have some sawlogs if harvested at rotation age. Trace of pin cherry, white pine, black cherry in canopy.
43	4130 - Aspen	High Density Pole	6.3	41		True upland, SI about 57. Trace of birch.
44	6114 - Lowland Oak	Medium Density	12.2	15		Trace of white pine in canopy
45	4139 - Aspen, Mixed Deciduous	High Density Pole	12.1	40		Could be early harvested to even age classes if needed, but better to hold 10 years to rotation age. 10-20% shallow depressions. Some red maple in canopy, understory of red maple. Red oak at NE and W end. Portions in middle are hummocky. Trace of White oak, paper birch, white pine, black cherry in canopy, white pine in subcanopy.
48	6113 - Lowland Maple	Medium Density Pole	10.8	61		Trace of pin oak in canopy and black ash in subcanopy.
49	6119 - Mixed Lowland Deciduous Forest	High Density Pole	13.5	71		Stand hummocky: about 1/3 shallow puddles now but would dry out by August. Harvest in 10 years, dry/frozen, dormant. Trace of paper birch and white pine in overstory, trace of white pine in under.
50	6112 - Lowland Aspen	High Density Pole	14.6	40		Wet but operable. Lot of it hummocky and some drier with about 15-20% shallow puddles. Candidate for early harvest but would have some sawlogs if held to rotation age. This stand broken out of old OI stand 23. Trace of white pine, swamp white oak, black cherry, jack pine, pin oak and elm in canopy.
51	6112 - Lowland Aspen	Low Density Sapling	38.4	4		Harvested 2006. large portion reverted to distinct wet meadow. Trace of white pine.
54	4130 - Aspen	High Density Pole	24.6	40		Could be early harvested to even age classes if needed, but better to hold 10 years to rotation age. About 20% lowland. Trace of white oak and white pine in overstory; trace white pine in understory.
57	4130 - Aspen	High Density Pole	12.2	40		Could early harvest but don't have large amount of product now: better to wait to rotation age. Few supercanopy red maple. Trace of paper birch and black cherry (overstory), birch and pin cherry (understory)

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4139 - Aspen, Mixed Deciduous	Medium Density Pole	10.6	Uneven Age		Don't harvest. Drier, more varied species mix than stand 45. Trace birch, white oak in canopy, birch in sub.
59	4130 - Aspen	Medium Density Pole	31.6	40		Two different upland soils: Pipestone Sand (40%) and more mesic and productive Oakville Fine Sand (higher BA, mostly central and western portion of stand). Candidate for early harvest if needed but could have some sawlogs if harvested at rotation age. Trace of pin cherry, white pine, black cherry in canopy.
60	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	42.6	16		Far S end upland. Two broad drains run E - W through center and S end. Trace of willow, white pine.
62	4131 - Aspen, Oak	High Density Sapling	6.8	16		Trace white pine, black ash (overstory).
63	6119 - Mixed Lowland Deciduous Forest	High Density Log	5.4	60		
64	6113 - Lowland Maple	High Density Pole	18.9	63	81-110	Operable during dry/frozen but BA too low to remove merchantable amount of product while keeping stand windfirm.
67	6112 - Lowland Aspen	Medium Density Pole	15.3	30		Trace of elm, pin cherry and dogwood in understory. Swamp grass ground cover in many areas.
68	6119 - Mixed Lowland Deciduous Forest	High Density Pole	16.9	40		Bisected by broad drain (E1/N) running west into stand 52. Barely upland between stand 52 and 55: higher percent maple here. Aspen will hold to rotation. Will want to harvest dry/frozen and dormant. Will be challenge to cross drains. Trace of pin cherry, pin oak, balsam poplar, white pine, elm in canopy, and elm, swamp white oak and pin oak in understory.
69	6112 - Lowland Aspen	High Density Pole	6.4	40		Wet but operable. Lot of it hummocky and some drier with about 15-20% shallow puddles. Candidate for early harvest but would have some sawlogs if held to rotation age. This stand broken out of old OI stand 23. Trace of white pine, swamp white oak, black cherry, jack pine, pin oak and elm in canopy.
71	6112 - Lowland Aspen	High Density Sapling	18.7	16		Trace of white pine, elm in overstory, autumn olive in underst.
72	4130 - Aspen	High Density Pole	36.9	40		About 55% borders on being lowland. 45% is higher, lower SI ridges. Dissected by E type drainage. Could be early harvested to even age classes if needed, but better to hold 10 years to rotation age. Trace of birch, black cherry in canopy.
73	4130 - Aspen	High Density Pole	36.9	30		60-65% upland with few drainages running through. diverse density, hydrology. 70% of upland is hummocky.
74	6113 - Lowland Maple	High Density Pole	3.5	82		Set up in 2006 for sale but not harvested with stand 61 because TOO WET.
75	4199 - Other Mixed Upland Deciduous	Medium Density	54.7	16		Trace of honeysuckle and juneberry in understory.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
77	4137 - Aspen, Birch	High Density Sapling	57.6	30		Portions more upland with smaller bigtooth aspen and closer to pure aspen. Portions (E side in general) hummocky with some larger (large pole) red maple, pin oak. Trace of white oak in overstory.
79	4131 - Aspen, Oak	High Density Pole	15.3	70		In meander of Chippewa River on bench of floodplain. Keep as buffer for river. Trace of white ash and basswood in understory.
80	4130 - Aspen	High Density Pole	33.0	30		trace of black ash, birch and cherry in canopy, honeysuckle and birch in underst.
82	4130 - Aspen	High Density Sapling	31.9	16		
84	4130 - Aspen	High Density Log	7.6	90		Some steep, deep draws running down to river. Leave stand as buffer for Chippewa River. Strong northern hardwood component but types out as aspen. Lot of trillium, also trace of sugar maple sawlogs, blue beech, white pine, black cherry and cedar in canopy; w pine, maple lf viburnum, pin cherry and hazel in understory.

6 – Nonforested Stands

Data updated before 10:00 AM

Stand	Cover Type	Acres	Gen Cmts:
8	6233 - Wet Meadow	2.6	
12	3103 - Rubus-Fern	9.3	Failed clearcut: heavy deer rowse on oak, aspen. Scattered black oak, white pine, red maple. Plant red or jack pine.
13	3102 - Grass	1.2	grass, lot of rose and rubus
19	3103 - Rubus-Fern	43.9	Failed clearcut. Severe deer browse. Scattered cherry, pin oak, white pine, red maple. This stand and stand 12 will not regenerate in next decade. PLANT RED OR JACK PINE.
20	623 - Emergent Wetland	1.3	
23	6220 - Alder/willow	6.9	Tall alder over swamp grass.
25	6220 - Alder/willow	4.5	power line clearing: South 1/2 is L type, North 1/2 is N. honeysucle, willow and alder in L type portion.
26	6220 - Alder/willow	1.1	10-14% maple
27	790 - Other Bare/Sparsely Vegetate	9.1	Beaver flooding with scattered marsh grasses and isolated alder.
29	629 - Mixed non-forested wetland	14.0	Willow, swamp grass, rose, lot of snags, cattails. Some maple where runs through stand 31 and 33.
34	3103 - Rubus-Fern	1.7	bracken filling in with oak, white pine, aspen
38	3102 - Grass	1.9	grass, mullein, rose, scattered trees
46	623 - Emergent Wetland	3.0	
47	622 - Lowland Shrub	3.5	6220 lowland shrub. not in dropdown for cover type.
52	6220 - Alder/willow	2.6	Scattered maple, ash.
53	623 - Emergent Wetland	4.6	62300. dense, tall swamp grass (dont think phragmites). portion of stand 41 that reverted to marsh when cut.
55	622 - Lowland Shrub	6.2	6220. tag alder with ash saps coming in.

Stand	Cover Type	Acres	Gen Cmts:
56	6230 - Cattail	14.2	
61	6220 - Alder/willow	2.0	Scattered maple, ash.
65	6230 - Cattail	4.4	scattered dead ash
66	6220 - Alder/willow	1.2	Scattered maple, ash.
70	6230 - Cattail	5.1	scattered dead ash
76	790 - Other Bare/Sparsely Vegetate	41.0	
78	790 - Other Bare/Sparsely Vegetate	49.0	
81	3102 - Grass	2.3	
83	50 - Water	2.7	
85	3102 - Grass	1.1	grass with few trees, small percent marshy

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.

Data updated before 10:00 AM

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.

Data updated before 10:00 AM

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.