Gladwin Forest Management Unit
Compartment Review Presentation
Compartment 32 Entry Year: 2012
Compartment Acreage: 1716 County: Gladwin

Revision Date: Draft 2, September 29, 2010. Draft 1 September 10, 2010

Stand Examiner: Mark Reichel

Legal Description: T 20N, R 01E, Sections 25-27, 34, 35

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

Management Goals: Visual management is a higher than normal priority in this compartment because it is adjacent to Secord Lake, the homes and businesses along most of its shoreline, and a number of fairly heavily traveled county roads to those homes. The slopes running down to Secord Lake are also steep and long, hence several narrow stands are being managed as both visual buffers and as Riparian Management Zones. Aspen forest types, upland and lowland, comprise 48% of the compartment's cover. Of this aspen, there is none over the age of 40 that is available for harvest (41 acres over 50 years of age are in "buffer" stands adjacent to Secord Lake). There is, however, a disproportionate amount (392 acres) in the 30 to 39 year old age class. To bring the aspen age class distribution closer to being regulated, 229 acres of this aspen will be early harvested, which will provide the correct amount of aspen in the 1 to 9 year old class as well as 63 additional acres to augment the current 1 to 9 year old class (42 acres) when it is harvested. In addition, one small oak stand will be final harvested to regenerate oak, one natural mixed pine stand will be thinned, and one mixed pine/deciduous stand will have the hardwoods removed.

Soil and Topography: This compartment is otherwise flat but dissected by five relatively steep, deep drainages running from northwest to southeast into Secord Lake. Soils in the half of the compartment southwest of Mohawk Trail (road) consist of roughly 60% somewhat poorly drained Bowers-Iosco-Hettinger association soils which support large upland aspen stands that have numerous vernal ponds. 25% of this area is "ridges" of arid Rubicon-Ocqueoc-Ingalls association soils (especially on the slopes of Secord Lake), which support moderately stocked aspen/oak and mixed pine stands. The final 15%, along Boman Road and the southwest portion of Mohawk Trail) is somewhat poorly drained Iosco-Brevort loamy sands which support lowland hardwood and mixed pine and mixed upland hardwood stands.

Soils in the half of the compartment north of Mohawk Trail consist of the following: the eastern 1/3 and far northwestern and southwestern 1/5 is the same Bowers-Iosco-Hettinger (with aspen) and Rubicon-Ocqueoc-Ingalls association (with arid oak/aspen/pine) soils as above. The central ¼ is somewhat poorly drained Au Gres-Kinross association soils supporting lowland coniferous forest, lowland shrubs and a few mixed pine stands. The western ¼ is a mixture of somewhat poorly drained Croswell-Au Gres association soils supporting a variety of cover types (mixed upland hardwood, mixed pine, lowland hardwood, aspen, grass and low density trees) and poorly drained Epoufette-Tawas association soils supporting lowland shrubs and marsh.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is a continuous block bordered on the east and south by Secord Lake and private subdivisions with mostly year-round residences. To the north is state forest land, and to the west is mostly private land, the latter in only five ownerships. The majority of the surrounding land is heavily forested. Nine different segments of paved roads with deep ditches run through the compartment, as well as an improved dirt road (Red Oak

Lane). Due to Secord Lake, there is a larger than average focus on non-motorized and water recreation, thus a higher variety of interest groups use this compartment. Historically there has been serious, chronic issues with trash dumping and unauthorized ORV activity, although little of either was noted at the time of inventory. All berms were holding. No illegal hunting blinds were found during inventory.

Unique, Natural Features: None per M.N.F.I. database.

Archeological, Historical, and Cultural Features: None per H.A.L. database.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Riparian systems (creeks and river) provide a high degree of flora and fauna diversity. The high aspen cover percentage contributes to the popular use of this area by hunters who seek the early forest succession wildlife species such as deer, grouse, woodcock and bear.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 100 and 200 feet. Beneath the glacial drift is the Pennsylvanian Saginaw Formation. The Saginaw Formation is used for clay/shale in other areas of the State. This area is predominantly sand with the nearest gravel pit located three miles to the north. Gravel potential in the compartment is considered limited. Very little oil and gas exploration has occurred in this area, and potential is fair. Part of Sections 27 and 34 are leased for oil and gas development.

Vehicle Access: Numerous paved county roads run through the compartment. The half of the compartment north of Mohawk Trail has only one good "two track"- the old "jeep trail", which is gated a quarter mile in. Red Oak Lane (improved dirt) also runs to the east. Access to the northwestern quarter of the compartment is very poor, with only one "two track" that becomes impassable after a few hundred yards. There are three very good networks of "two tracks", mostly grown over, south of Mohawk Trail. These networks are separated by deep drainages. When Mohawk Trail was paved several years ago the county deepened its ditches. Crossing these ditches in some places will be difficult.

Survey Needs: None known.

Recreational Facilities and Opportunities: There is a DNR boat ramp at the south end of the compartment, and boating and water activities are the focus of most of the immediate residents. The Midland to Mackinac Trail runs through the compartment and has heavier use than in most of the Gladwin F.M.U. The compartment is also used for Deer and Grouse hunting, although the almost total absence of illegal hunting blinds may indicate that hunting is lighter or hunting behavior is different.

Fire Protection:

Additional Compartment Information: None

Cover Type & Treatment Map

Compartment 32
T20N, R01E, Sec. 26, 27, 34, 35
County: Gladwin
Unit: Gladwin
YOE: 2012
Acres: 1,688 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

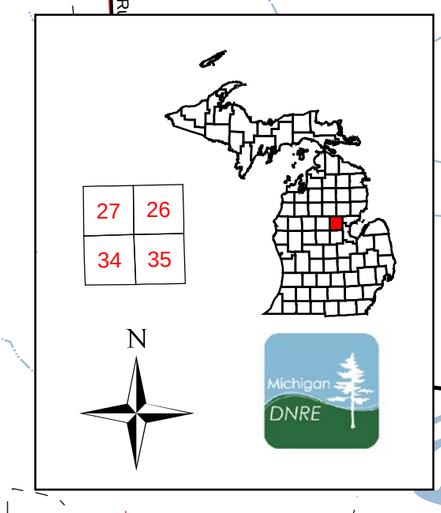
Legend

- Miris Corners
- Remonumented Section Corners
- Highway
- Paved Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- State Highway
- Trail
- Hiking Trails
- Boat Access Sites
- Lakes and Rivers
- Intermittent Stream/Drain
- Stream

Treatments
- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)

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

Non-Forest Stands
Level 3
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 710 - Sand, Soil



1 6115-E6; 2 622-L0; 3 4191-MD6; 4 429-MC2; 5 310-G0; 6 623-N0; 7 623-N0; 8 6115-E1; 9 622-L0; 10 623-N0; 11 629-L0; 12 6115-E5; 13 623-N0; 14 4220-W5; 15 4130-A2; 16 310-G0; 17 310-G0; 18 4311-UM2; 19 623-N0; 20 622-L0; 21 4311-UM2; 22 4222-J5; 23 4130-A2; 24 622-L0; 25 4222-J2; 26 622-V0; 27 330-U0; 28 6112-P9; 29 4130-A1; 30 4130-A3; 31 4229-MC9; 32 4311-UM4; 33 4199-MD4; 34 6119-E6; 35 4221-R9; 36 4199-MD3; 37 6119-E5; 38 6119-E5; 39 4130-A3; 40 4319-UM9; 41 622-L0; 42 4130-A6; 43 320-U0; 44 6117-E6; 45 4191-MD6; 46 4199-MD9; 47 622-V0; 48 4191-MD9; 49 6115-E2; 50 623-N0; 51 4229-MC5; 52 6119-E5; 53 4226-MC6; 54 6113-E9; 55 710-Y0; 56 4116-M9; 57 4133-A8; 58 6112-P2; 59 6127-LM6; 60 622-D0; 61 622-L0; 62 4220-W6; 63 6126-J5; 64 6114-E2; 65 6113-E5; 66 622-L0; 67 623-N0; 68 330-U0; 69 330-U0; 70 4131-A3; 71 4136-A3; 72 500-Z0; 73 4130-A6; 74 4130-A6; 75 6115-E4; 76 622-L0; 77 6112-P1; 78 4125-O3; 79 4130-A6; 80 622-L0; 81 4226-MC6; 82 4131-A2; 83 622-V0; 84 622-L0; 85 622-L0; 86 4131-A3; 87 623-N0; 88 622-D0; 89 623-N0; 90 710-Y0; 91 4131-A3; 92 4130-A2; 93 4133-A9; 94 4130-A6; 95 4130-A6; 96 4130-A3; 97 4133-A9; 98 622-V0; 99 4131-A5; 100 622-L0; 101 6112-P2; 102 4130-A1; 103 4125-O1; 104 500-Z0; 105 500-Z0; 106 622-L0; 107 4319-UM2; 108 4130-A8; 109 4130-A3; 110 4130-A3; 111 622-V0; 112 4130-A6; 113 500-Z0; 114 4131-A8; 115 6112-P6; 116 500-Z0; 117 500-Z0; 118 500-Z0

W Indian Lake Dr; Dollar Lake; Drummond Rd; Smith Ave; Elk Lake Rd; Cedar Lake; Sugar River Rd; Cedar Lake Rd; Indian Lake Creek; Section 22 Clement Twp Rd; Gessey Rd; Elk Lake Creek; Boman Rd; Glaves Cove Rd; Mohawk Trl; Rose Ln; Mohawk Ct; Jean St; Red Oak Ln; Middle Br Tittabawassee River; Middle Point Dr; E Shore Dr; Park Rd; Old M 30; Finkbeiner Rd; Midland to Mackinaw Boy Scout Trail; Ritchie Rd; Thendara Dr; Park Dr; Pineland Rd; Peninsular Dr; Pineland Pt; Thendara Ct; Nokomis Dr; Lakeshore Dr; Bowmanville Rd; Secord Lake; Pinewood Dr; Ojibway St; Chippewa St; Sioux St; Hillis Dr; Pioneer Dr; Baker Rd; Oak St; Pine Dr; Loebrich Dr; Riverside Dr; East Br Tittabawassee River; Sunny St; Shady St; Wheeler Drain; Jennings Ct; Four Seasons Dr; Lundy Dr; White Tail Trl; Fawn Ln; West Branch Tittabawassee River; Deer Run Trl; W Branch Dr; W Wirtz Rd; W River Dr; Beaver Ct; Pinecrest Ct; Wirtz Rd; E Pinecrest Dr; Long Lake; E Wirtz Rd; 3 Rivers Rd; Tousley Ct

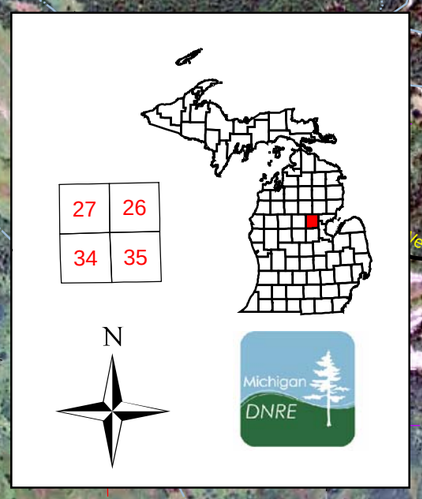
84°22'0"W; 84°21'0"W; 84°20'0"W; 84°19'0"W; 84°18'0"W; 44°8'0"N; 44°7'0"N; 44°6'0"N; 44°5'0"N; 44°4'0"N

0.5 0 1 Miles

Stand Boundary Map

Compartment 32
T20N, R01E, Sec. 26, 27, 34, 35
County: Gladwin
Unit: Gladwin
YOE: 2012
Acres: 1,688 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
- Highway
- Paved Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- State Highway
- Trail
- Hiking Trails
- Boat Access Sites
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Stand Boundaries

Forest Stands
- Level 3
  - 411 - Northern Hardwood
  - 412 - Oak Types
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
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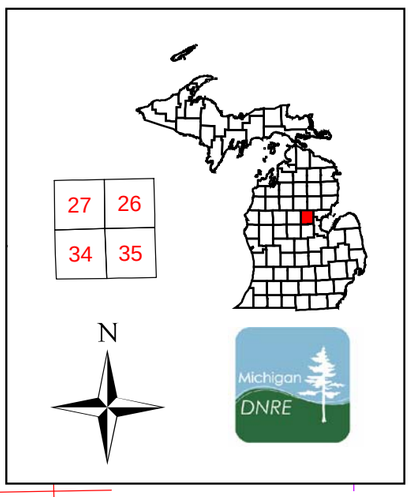
Non-Forest Stands
- Level 3
  - 310 - Herbaceous Openland
  - 320 - Upland Shrub
  - 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
  - 629 - Mixed non-forested wetland
  - 710 - Sand, Soil

1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

Compartment 32
T20N, R01E, Sec. 26, 27, 34, 35
County: Gladwin
Unit: Gladwin
YOE: 2012
Acres: 1,688 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

Boat Access Sites
- Boat Access Sites
- Stand Boundaries

Forest Stands

Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
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Non-Forest Stands

Level 3
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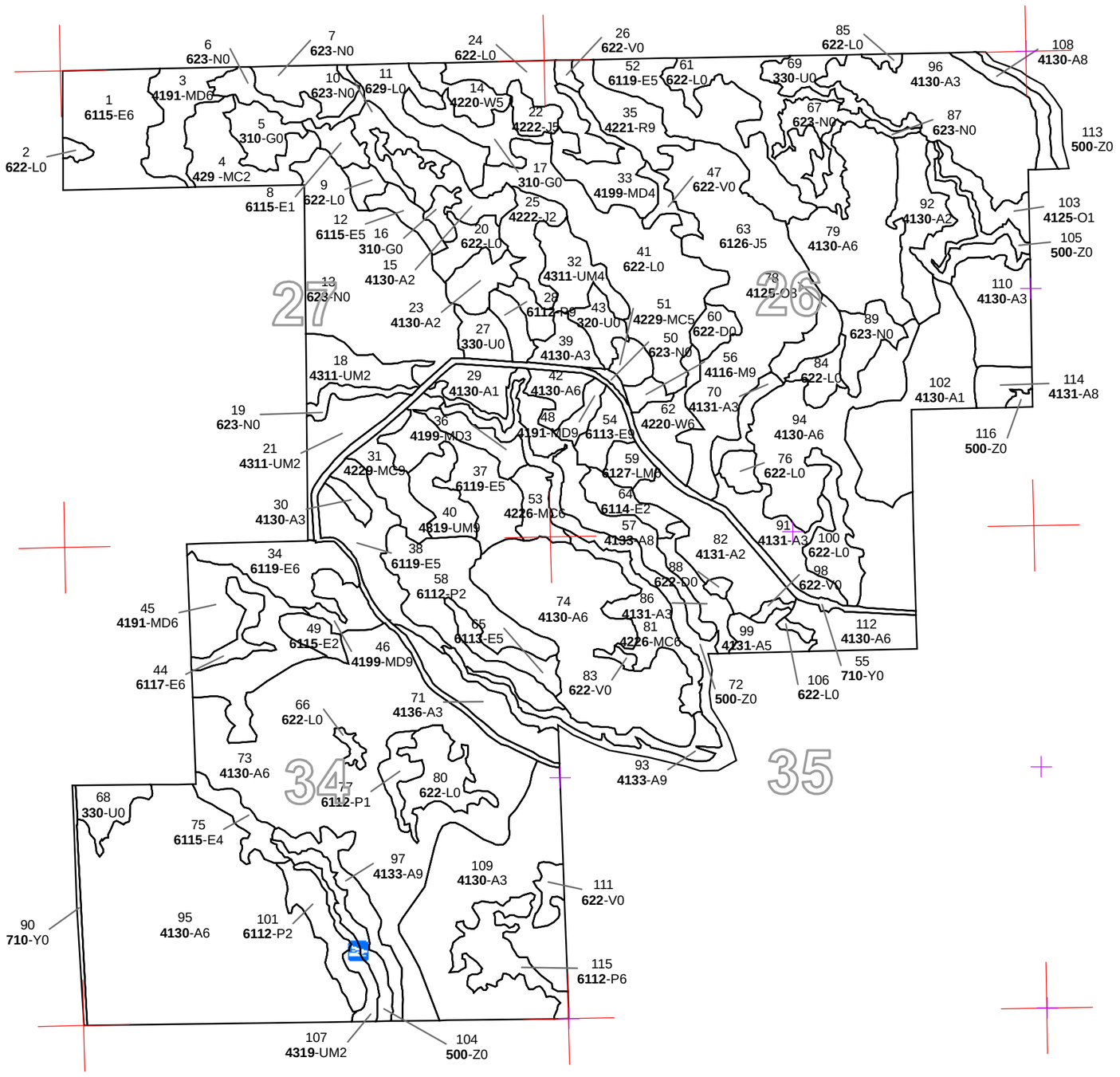

84°22'0"W 84°21'0"W 84°20'0"W 84°19'0"W 84°18'0"W
44°8'0"N 44°7'0"N 44°6'0"N 44°5'0"N 44°4'0"N

1 0.5 0 1 Miles

Table 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit **Compartment 032 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	42	206	73	392	0	5	0	9	27	0	0	0	0	11	**765**
Bog	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**12**
Herbaceous Openland	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**21**
Jack Pine	0	0	0	0	15	0	67	0	0	0	0	0	0	0	0	**82**
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**22**
Lowland Aspen/Balsam Poplar	0	0	48	0	14	0	5	0	0	0	0	0	0	0	0	**66**
Lowland Conifers	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	**5**
Lowland Deciduous	0	0	0	7	10	0	0	22	82	35	0	0	0	0	6	**162**
Lowland Shrub	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**150**
Marsh	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**109**
Mixed Upland Deciduous	0	0	7	0	29	0	0	37	0	4	0	0	0	0	0	**77**
Natural Mixed Pines	0	0	0	0	4	0	0	0	32	0	0	0	0	0	0	**36**
Northern Hardwood	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	**3**
Oak	0	0	19	0	0	0	0	0	0	7	0	0	0	0	0	**25**
Red Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	**13**
Sand, Soil	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**21**
Treed Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Upland Conifers	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	**17**
Upland Mixed Forest	0	0	29	0	17	0	0	0	10	0	0	0	0	0	0	**56**
Upland Shrub	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Water	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**43**
White Pine	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	**18**
Total	**391**	**42**	**308**	**80**	**521**	**0**	**77**	**59**	**133**	**75**	**0**	**0**	**0**	**0**	**30**	**1716**

Table 2 – Proposed Treatment Summaries

Data updated before 10:00 AM

Gladwin Mgt. Unit
Year of Entry 2012

Compartment 032
Total Compartment Acres: 1716

Acres by Treatment Type

Commercial Harvest - 253	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	229	0	0	0	0	0	**229**
Mixed Upland Deciduous	7	0	0	0	0	0	**7**
Natural Mixed Pines	0	10	0	0	0	0	**10**
Oak	7	0	0	0	0	0	**7**
Total	**242**	**10**	**0**	**0**	**0**	**0**	**253**

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
31	73032031- Sel	10.3	42290 - Natural Mixed Pine	High Density Log	73	Harvest	Single Tree Selection	Natural Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Remove all red maple, THEN undividual tree mark with orange paint to remove white pine less than 14" D, plus additional red pine to reach target BA of 90. Do not harvest oak or aspen.

Other Comments: Purpose of retaining aspen is to decrease its presence in stand over long term. Residual mixed stand will be retention.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
46	73032046-FH	7.1	4199 - Other Mixed Upland Deciduous	High Density Log	61	Harvest	Clearcut with Reserves	Mixed Upland Forest	Cmpt. Review Proposal

Prescription Specs: Final harvest: Use sale specification to reserve all oak and white pine for retention by BA.

Other Comments: Regeneration expected, but if regen fails, plant red pine.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
74	73032074-FH	61.3	4130 - Aspen	High Density Pole	36	Harvest	Clearcut with Reserves	Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Clearcut. Leave all non-aspen/maple for retention by BA. Use 2 drains for retention, as well as heavy conifer patches at NW and NE edges.

Other Comments: Will need to armor drains and only cross in a few defined spots. Early harvest to even age class distribution. Some aspen approaching log size. Expect regeneration, but if regeneration fails, plant red pine.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
78	73032078-FH	6.6	4125 - Black, N. Pin Oak	Medium Density Log	87	Harvest	Clearcut with Reserves	Black, N. Pin Oak	Cmpt. Review Proposal

Prescription Specs: FINAL HARVEST NOW. 4" spec on the little regen that is there. Small stand but can harvest with other stands. Expect oak stand to regenerate, but plant red pine if regen fails.

Other Comments: Broken out of old ('02) stand 21. Very little understory, mostly old log sized oak with little regen. Valuable for mast now, but will lose mast when oak dies soon. Can get oak back from stump sprouts if clearcut. Interplant jack pine if regeneration fails.

Next Steps:

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
79	73032079-FH	38.6	4130 - Aspen	High Density Pole	36	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Clearcut winter (frozen and dormant, NON-NEGOTIABLE, or do not cut). Reserve red pine, white and jack pine for retention using spec.

Other Comments: Will have to armor 4 to 5 narrow drains. Expect natural regeneration. If regen inadequate, 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
95	73032095-FH	128.6	4130 - Aspen	High Density Pole	34	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest. Use dry/frozen spec non-negotiable: 15-20% very wet depressions. Don't cut non-aspen species except red maple and ash (reserve using sale specification for retention by BA). Also mark retention islands in wet areas with red paint.

Other Comments: Midland to Mackinac trail runs thorugh stand; use pathway protection spec to protect trail tread. Trace of white pine, black oak and elm in overstory, and balsam fir, hazel and white pine in understory. Expect natural regeneration.

Next Steps: Alternate prescription if regeneration were to fail: plant red pine.

Total Treatment Acreage Proposed: **252.5**

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**

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	6115 - Lowland Ash	High Density Pole	28.7	76		55% ash log over swamp grass. 45% ash, aspen poles over fir. No access from west. Trace of red maple.
3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	14.1	34		75% of overstory aspen/maple; younger fir forms rest of overstory. NE and S ends (about 10% too wet). Most of stand is dry enough to harvest and there's adequate volume but access is very poor. Access from west is not possible.
4	429 - Mixed Upland Conifers	Medium Density	16.7	34		70% upland. Not a lot of aspen to warrant early harvest. Lot of wet ground. Tra e of birch, cedar and tamarack.
8	6115 - Lowland Ash	Low Density Sapling	4.7	34		barely forested. 10% emergent wetland.
12	6115 - Lowland Ash	Medium Density Pole	5.1	34		
14	42200 - Natural White Pine	Medium Density Pole	7.5	37		Meet mapping rules? if not combine with stand 21. Combine with stand 21 and/or 31 if too small. Trace of red pine and tamarack.
15	4130 - Aspen	Medium Density	11.4	17		Trace O' Balsam fir, jack pine, white pine and tamarack
18	4311 - Pine, Aspen Mix	Medium Density	11.6	18		L type drain through west end. Some good dense bigtooth aspen clones, rest conifers. Some oak. Trace of tamarack.
21	4311 - Pine, Aspen Mix	Medium Density	12.0	18		Trace of birch, red maple, red pine in overstory, pin cherry in understory.
22	42220 - Natural Jack Pine	Medium Density Pole	4.6	37		Trace of red pine and paper birch
23	4130 - Aspen	Medium Density	7.8	17		Scout trail runs through stand. Trace of jack pine, birch, black oak, white pine in canopy; willow and white pine in understory.
25	42220 - Natural Jack Pine	Medium Density	10.5	37		Few shallow small drains run E-W through stand. Ground cover mainly bracken, wintergreen; some vaccinnium/leatherleaf. Trace of black oak, pin cherry, red maple, paper birch.
28	6112 - Lowland Aspen	High Density Log	4.6	56		Floodplain and side slopes and narrow upland RMZ along tributary of Elk Lake Creek. 65% lowland. Trace of juneberry, balsam fir, elm, swamp white oak and cedar in understory.
29	4130 - Aspen	Low Density Sapling	7.5	4		Aspen clearcut (2006) with trace of supercanopy white pine, black oak, red maple, bigtooth aspen, tamarack.
30	4130 - Aspen	High Density Sapling	2.3	17		
31	42290 - Natural Mixed Pine	High Density Log	10.3	73	141-170	Access at far NE corner of stand off paved road.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4311 - Pine, Aspen Mix	Low Density Pole	16.7	37		NOT AN ASPEN SITE. Aspen has very low SI and form. Whhite pine filling in: keep mostly unmerchantable aspen as shade for pine to control weevil. About 25% shallow blueberry depressions. Trace O' red maple, jack pine and tamarack.
33	4199 - Other Mixed Upland Deciduous	Low Density Pole	15.2	37		ASH/ALDER DRAINS CROSSING IN SEVERAL PLACES. 60% UPLAND, REST ASH/MAPLE OVER ALDER. iN 10 YEARS ACCESS WOULD BE DIFFICULT AND WOULD HAVE TO CUT DRY/FROZEN/DORMANT. tRACE OF JACK PINE, RED PINE AND BLACK OAK.
34	6119 - Mixed Lowland Deciduous Forest	High Density Pole	17.5	61		Operable except for 5-10% that's ash over swamp grass. Trace of pin oak and cedar in overstory, cedar in understory.
35	42210 - Natural Red Pine	High Density Log	13.0	Uneven Age		Trace of jack pine, red maple, black spruce. Ground cover heavy blueberry with 15% bracken. Do not cut because windthrow hazard. As is stand will maintain self as red pine: uneven aged stand; some saps are craplings, others viable regen. A burn would be very valuable in this stand; blueberry is supressing regen. Northern 2 acres is much sparser jack pine upland and some bog that was too small to map.
36	4199 - Other Mixed Upland Deciduous	High Density Sapling	6.7	17		
37	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	20.9	73		Few ac of upland at S end. N end operable with dry/frozen. Central portion inoperable. Volume too low for selection harvest.
38	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	18.8	73		25% upland along road
39	4130 - Aspen	High Density Sapling	6.5	36		Trace of Black oak, white pine in understory. Accessible from far SE edge off curve of road. NOT AN ASPEN SITE. Almost no merchantable vol. now at age 37. In 10 years do commercial or non-com cut and plant pine, probably red pine (few in stand with decent site index). Deep drain runs E-W but can get to back of stand from SE corner.
40	4319 - Mixed Upland Forest	High Density Log	9.9	73		Mixed upland (deciduous and coniferous).
42	4130 - Aspen	High Density Pole	6.6	35		
44	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	5.7	Uneven Age		10-15% of canopy is balsam fir saplings, separate story from maple/ash.
45	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	29.8	61		trace of hemlock and white oak in canopy, hemlock in understory.
46	4199 - Other Mixed Upland Deciduous	High Density Log	7.1	61		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
48	4191 - Mixed Upland Deciduous with Conifer	High Density Log	3.6	83		Access issue. Pulled from Mohawk Harvest Sale ('06) due to new deep ditch from improvement of road. Trace red maple in understory.
49	6115 - Lowland Ash	Medium Density	5.0	61		NE 30% is L type.
51	42290 - Natural Mixed Pine	Medium Density Pole	4.2	37		
52	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	28.4	83		Aspen removal plus selection to target BA of 60-70 in 2008. 45% upland. Very little aspen, maple regen. What litle there is has been browsed, including maple, and is under bracken. Some nice red pine seedlings coming in. Trace of quaking aspen, tamarack, black cherry, white pine in canopy, red pine and blue beech in understory.
53	42260 - Natural Pine, Mixed Deciduous	High Density Pole	6.7	73		Steep bank of Secord Lake. Trace of Red oak and rock elm in canopy and pin cherry in understory.
54	6113 - Lowland Maple	High Density Log	6.9	83	51-80	Volume too low to do selective harvest. Trace of pin cherry and paper birch (overstory), alder (understory)
56	4116 - Mixed N. Hardwood - Aspen	High Density Log	2.7	83		30% lowland. Stand pulled from timber sale in roughly '07 because no access due to steep new road bank and inadequate vol. Trace of alder and black oak in subcanopy, elm in canopy.
57	4133 - Aspen, Mixed Pine	Medium Density Log	21.0	80		Visual buffer for Secord Lake: Steep slope down to lake. Trace of black cherry, birch in canopy.
58	6112 - Lowland Aspen	Medium Density	32.0	18		60% lowland. Small patch mature WP in north central portion of stand. SE edge of portion north of drainage is a lower percentage canopy closure and a little wetter.
59	6127 - Lowland Pine	High Density Pole	4.7	30		Blueberry in portions of south end. 65-70% lowland. Trace of birch, aspen, jack pine in overstory, dogwood in understory.
62	42200 - Natural White Pine	High Density Pole	10.9	37		Most pine is infested with white pine weevil. Few paches of aspen along road. Trace of tamarack, red pine, birch, jack pine in overstory, tamarack and red maple in understory.
63	6126 - Lowland Jack Pine	Medium Density Pole	66.6	59		Too wet to harvest (windthrow hazard) and would need burning to regenerate. 20% upland. Heavy blueberry ground cover, with a lot of small bogs. Trace of birch, pin oak, balsam fir, black spruce and white pine in overstory, black spruce and tamarack in understory.
64	6114 - Lowland Oak	Medium Density	7.0	26		Barely lowland. Hummocky, with areas of moss and blueberry (25%). Similar to stand 134 but far less white pine and slightly drier.
65	6113 - Lowland Maple	Medium Density Pole	6.9	73		Drainage

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	4131 - Aspen, Oak	High Density Sapling	4.7	17		Former ('02) stand 21 divided. This southern portion is mostly regen with low % log sized oak. MANAGE NEW STAND.
71	4136 - Aspen, Mixed Conifer	High Density Sapling	13.3	34		Midland to Mackinaw Trail runs through stand at N end. Several steep drains to Secord lake dissect stand.
73	4130 - Aspen	High Density Pole	129.0	18		Split along Thendary Drive: Different ages. Midland to Mackinaw Trail runs through stand. 30% lowland. Trace of red pine, black ash, pin oak and jack pine.
74	4130 - Aspen	High Density Pole	61.3	36	51-80	Early harvest to even age class distribution. Some aspen approaching log size.
75	6115 - Lowland Ash	Low Density Pole	6.9	75		Creek floodplain.
77	6112 - Lowland Aspen	Low Density Sapling	5.3	18		
78	4125 - Black, N. Pin Oak	Medium Density Log	6.6	87		Broken out of old ('02) stand 21. Very little understory, mostly old log sized oak with little regen. Valuable for mast now, but will lose mast when oak dies soon. Can get oak back from stump sprouts if FINAL HARVEST NOW. 4" spec on the little regen that is there. Small stand but can harvest with other stands. Plant red pine if regen fails. Trace of white pine, jack pine, red maple in canopy.
79	4130 - Aspen	High Density Pole	38.6	36		Barely upland. No understory coming in. Best to harvest this YOE if want aspen. Good volume. No sensitive fern; 5-10% bracken. Ground cover blueberry, goldenrod, raspberry, 5% swamp grass, 5% winterberry.
81	42260 - Natural Pine, Mixed Deciduous	High Density Pole	15.0	73		Access off Mohawk Trail at stand 36 (same access as stand 30)
82	4131 - Aspen, Oak	Medium Density	21.7	26		5-10% very shallow lowland (hummocky and bog areas). Grades to higher % lowland at south end (15-20%). Southern 5-10 ac has about 10% tamarack, 2% birch, trace of black spruce. Northern 15 ac has about 5% jack pine. Also trace of red pine in canopy.
86	4131 - Aspen, Oak	High Density Sapling	7.3	27		Grades to wetter with far less aspen and more oak and maple at north end. Hummocky at south end. Trace of paper birch in canopy, red pine and alder in subcanopy.
91	4131 - Aspen, Oak	High Density Sapling	14.6	17		Trace of tamarack in overstory, alder, white and red pine, paper birch and black oak in understory. Some supercanopy oak.
92	4130 - Aspen	Medium Density	16.8	18		portions reverted to lowland shrubs with birch coming in. Will eventually succeed back to forest. Patchwork of good aspen clones, south half closer to solid aspen. 15-20% lowland. Trace of winterberry.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
93	4133 - Aspen, Mixed Pine	High Density Log	8.7	73		Slope of Secord Lake: Narrow visual buffer for dense homes along lake. West end more xeric with more oak and less white pine.
94	4130 - Aspen	High Density Pole	55.2	36		5-10% lowland with ash and grass/forbs. Access Issue. Between stands 91 and 94 very wet: would probably want to have 2 landings- North and South. Another almost 40% is low but operable WITH DRY/FROZEN SPEC. Candidate for early harvest but would prefer to not cut this stand because of wet ground and access issue. Trace of white pine, birch, elm, black cherry.
95	4130 - Aspen	High Density Pole	128.6	34		Candidate for early harvest. Would have to use dry/frozen spec non-negotiable: 15-20% very wet depressions. Don't cut non-aspen species except red maple and ash. Midland to Mackinac trail runs thorugh stand. Trace of white pine, black oak and elm in overstory, and balsam fir, hazel and white pine in understory.
96	4130 - Aspen	High Density Sapling	44.4	27		Northeast 1/3 is 85% aspen clumps, rest combination of bracken openings and small L pockets. Mostly solid aspen with good site index. Aspen smaller and mixed with more jack, red and white pine, oak and birch at north end. Trace of black oak, red maple, birch, red pine and jack pine in overstory, trace of serviceberry, white pine, hazel and jack pine in understory.
97	4133 - Aspen, Mixed Pine	High Density Log	11.2	Uneven Age		Slope of secord lake: leave as visual and bmp buffer.
99	4131 - Aspen, Oak	Medium Density Pole	6.6	36		ORV trail through East end. 15-20% lowland. Trace of birch, red pine, tamarack and red oak in overstory. Trace of white pine and tag alder in understory.
101	6112 - Lowland Aspen	Medium Density	10.4	18		Trace of swamp white oak, white pine, hawthorn and pin oak in canopy.
102	4130 - Aspen	Low Density Sapling	34.2	2		Harvested 2010. Should have done dormant season harvest. Aspen dense in many places, or reverted to emergent wetland (15-20%). No deer browse.
103	4125 - Black, N. Pin Oak	Low Density Sapling	18.6	18		Buffer (visual and steep slope) along Secord Lake. Trace of red maple and tamarack (canopy), tag alder, serviceberry, hazel in understory.
107	4319 - Mixed Upland Forest	Medium Density	5.4	18		Visual and RMZ buffer for Secord Lake. Very diverse species and size mix.
108	4130 - Aspen	Medium Density Log	5.7	80		Buffer (BMP's, visual) adjacent to Secord Lake. Trace of red and jack pine (canopy), juneberry, red and white pine, red maple and balsam fir (understory).
109	4130 - Aspen	High Density Sapling	63.3	34		Different than stand 79; therefore split stand. Less than pole size. Scout trail runs through stand.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
110	4130 - Aspen	High Density Sapling	19.1	18		Harvested with stand 81: came back more dense. Scattered L type pockets. Trace of pin oak and red maple in overstory and following in understory: serviceberry, hawthorn, alder, red ozier dogwood, hazel.
112	4130 - Aspen	High Density Pole	12.3	37		Trace O' white pine, pin cherry in subcanopy.
114	4131 - Aspen, Oak	Medium Density Log	5.4	57		Scattered drainages and low areas, including some deep drainages draining into Secord Lake. Leave as visual buffer for lake and adjacent homes and heavily traveled road. Trace of birch, elm, white pine and red maple in overstory, dogwood, white pine and blue beech in understory.
115	6112 - Lowland Aspen	High Density Pole	13.9	34		Scout trail through stand. Broken out of stand 79/131: far wetter, with swamp grass. Trace white pine and COTTONWOOD in canopy, balsam fir in subcanopy.

Stand	Cover Type	Acres	Gen Cmts:
2	6220 - Alder/willow	1.3	willow, alder, 5-10% aspen, ash, fir near road.
5	3103 - Rubus-Fern	8.7	20-25% L.
6	6230 - Cattail	8.4	Grass w/ little bit of alder, WP, RM
7	6230 - Cattail	9.9	Floating aquatic, but no code for.
9	6220 - Alder/willow	3.2	mostly willow
10	6230 - Cattail	8.0	Diverse: areas of willow/alder, 10% bracken, scattered WP, birch, areas of bog
11	629 - Mixed non-forested wetland	15.2	Very diverse: Ash canopy dying (EAB?). 11% cover, open water 10%, willow/ald 20%, swamp grass 60%
13	6230 - Cattail	60.6	10-15% forested lowland w/ BA, BF. 45% marsh. 40% upland w/ bracken, PO and A1/A2 seedlings. WP, RM AND Tr of RP, QA, TA.
16	3102 - Grass	3.0	
17	3103 - Rubus-Fern	9.6	Clearcut summer 2008. No regen.
19	6230 - Cattail	3.5	Crk bed w/ lush grass and lot of dead ash.
20	6220 - Alder/willow	6.8	Willow, alder, swamp grass
24	6220 - Alder/willow	13.8	Scattered tam, birch, maple, especially to NE
26	6225 - Bog	1.5	Scattered jack and red pine, black spruce, aspen
27	3303 - Mixed Low Density Trees	6.2	Harvested 2008. Resid supercanopy PO, WP and Tr of fir, JP, RP. Limited BTA regen, heavy bracken.
41	6220 - Alder/willow	48.2	Alder/will w/ 10% N and 10% sparsely treed upland
43	3205 - Mixed Upland Shrub	6.1	20% lowland with willow. 15% sweet fern. 15% N. Very late seral wetland tht's now upland.

Stand	Cover Type	Acres	Gen Cmts:
47	6225 - Bog	4.0	
50	6239 - Mixed Emergent Wetland	1.0	Old curve of Mohawk Trail: curve re-routed and paved a few years ago.
55	710 - Sand, Soil	18.8	Actually paved road (cover type 122) but cover type dropdown did not permit me to enter 122 and it was not in drop down.
60	6224 - Treed Bog	4.8	WP, JP, QA
61	6220 - Alder/willow	24.5	
66	6220 - Alder/willow	1.6	Lot of ash around edges.
67	6233 - Wet Meadow	8.2	mostly grass, sedge, rush. Some open water and cattails and floating aquatic.
68	3301 - Low Density Deciduous Tree	7.4	95% aspen. Close to 25% cover- will regen unless heavily browsed (little now). N end regenerated. S end sparser.
69	3303 - Mixed Low Density Trees	8.7	diverse: aspen, black oak, tamarack, jack pine and paper birch. 60% upland (bracken), rest L type
72	50 - Water	26.3	
76	6220 - Alder/willow	3.7	Will/ald w/ 10% birch, rm, wp
80	6220 - Alder/willow	12.9	
83	6225 - Bog	1.2	leatherleaf w scattered white pine
84	6220 - Alder/willow	5.5	mostly will, some trees @ N and E edges
85	6220 - Alder/willow	1.1	mostly willow with dogwood, rushes (5%). Scattrd birch, tamarack, maple.
87	6239 - Mixed Emergent Wetland	1.1	cattails, open water and rushes/swamp grass. Broad watercourse.
88	6224 - Treed Bog	1.1	WP, RM, PB, TAM, QA w/ blueberry. 15-20% treed.
89	6233 - Wet Meadow	8.7	5% cattails, 8% willow around edge. few ash

Stand	Cover Type	Acres	Gen Cmts:
90	710 - Sand, Soil	2.5	Actually cover type 122: road/parking lot but menu does not give me this choice.
98	6225 - Bog	1.2	some alder, maple, w and r pine, oak, aspen
100	6220 - Alder/willow	11.3	Mostly will, some cattails
104	50 - Water	7.4	
105	50 - Water	4.5	
106	6220 - Alder/willow	1.0	alder
111	6225 - Bog	3.7	5% white pine, birch, fir
113	50 - Water	4.1	
116	50 - Water	1.0	

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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.