



COMPARTMENT REVIEW PRESENTATION *GAYLORD FOREST MANAGEMENT UNIT*

COMPARTMENT: 66

ENTRY YEAR: 2013
ACREAGE: 1,241
COUNTY: Charlevoix

Revision Date: 05/18/2011

Stand Examiner: Kimberly Lentz

Legal Description: T38N, R10W, Sections 10, 22, 27, & 34

Management Goals: To provide for the protection, integrated management and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and Topography: The most predominant soil type is Roscommon Sand. Low, wet areas are Tawas Muck or Lupton Association. Other upland soils include Second Sandy Loam and Angelica Loam. Terrain is primarily level located on lowland.

Ownership Patterns, Development, and Land Use in and Around the Compartment: In Section 22, state owns 160 acres. Section 27 is all state ownership except one private 40 acre parcel. In Section 34, the West ½ of section, the NE1/4 of the SE ¼, and the N1/2 NE ¼ is state ownership. There is also an isolated 40 acre parcel state-owned in Section 10 by Egg lake which is surrounded by private and wetland.

Unique, Natural Features: None noted

Archeological, Historical, and Cultural Features: The Beaver Island History map noted that Hannigan Rd. was named after Tom "Hannigan" Boyle. Prior to that road name, it was called Mill Road when oxen pulled cars over a wooden track to Sweet's Mill.

Special Management Designations or Considerations: Dedicated and Proposed Special Conservation Area – Great Lakes Islands.

Watershed and Fisheries Considerations: Compartment is primarily lowland with marshes and lowland brush with a high water table. There is a flowing creek in Section 22. Portions of Section 27 are completely flooded by beaver dam activity. Fisheries comment is to apply appropriate Best Management Practices when working in the proximity of surface water.

Wildlife Habitat Considerations: This compartment is on Beaver Island and consists mainly of lowland areas utilized by white-tailed deer and various furbearers. Stand 27 is going to be clear cut if possible due to the wet nature and access to provide some early successional habitat within this compartment.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 300 and 400 feet. Beneath the glacial drift are the Devonian Detroit River Group and the Mackinac Breccia. The Detroit River is mined for salt and the Mackinac is used for stone in other areas in the State. The nearest gravel pits are less than one mile to the east. Gravel potential in the compartment is thought to be good. Oil and gas potential appears to be limited. Two wells were drilled on the island in 1961 as dry holes. One of the wells was located in Section 27. These wells were “deep” tests, with one reaching Precambrian age rocks. None of the State land is currently leased in the compartment.

Vehicle Access: Kings Highway and Hannigan Road are the two driveable roads adjacent to compartment boundaries. All other logging roads including the Johnny Martin Trail are now flooded with hike in only access.

Survey Needs: No survey needs at this time.

Recreational Facilities and Opportunities: The hiking trails previously maintained by the Island residents are no longer evident due to flooding by beaver activity.

Fire Protection: No foreseen problems

Additional Compartment Information:

- **The following 3 reports from the IFMAP Inventory System are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential and current SCA’s**

Cover Type & Treatment Map

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

Compartment 066
T38N, R10W, Sec. 10, 22, 27, 34
County: Charlevoix
Unit: Gaylord
YOE: 2013
Acres: 1,241 GIS Calculated
Stand Examiner: Kim Lentz
Map Revised: 5/26/2011
Map Phase: Pre-Review

10
22
27
34

N

Legend

- Miris Corners
- Remonumented Section Corners
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Bike Trail
- Horse Trail
- Hiking Trail
- Ski Trail
- Lakes and Rivers
- Intermittent Stream/Drain
- Stream

Treatments

- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

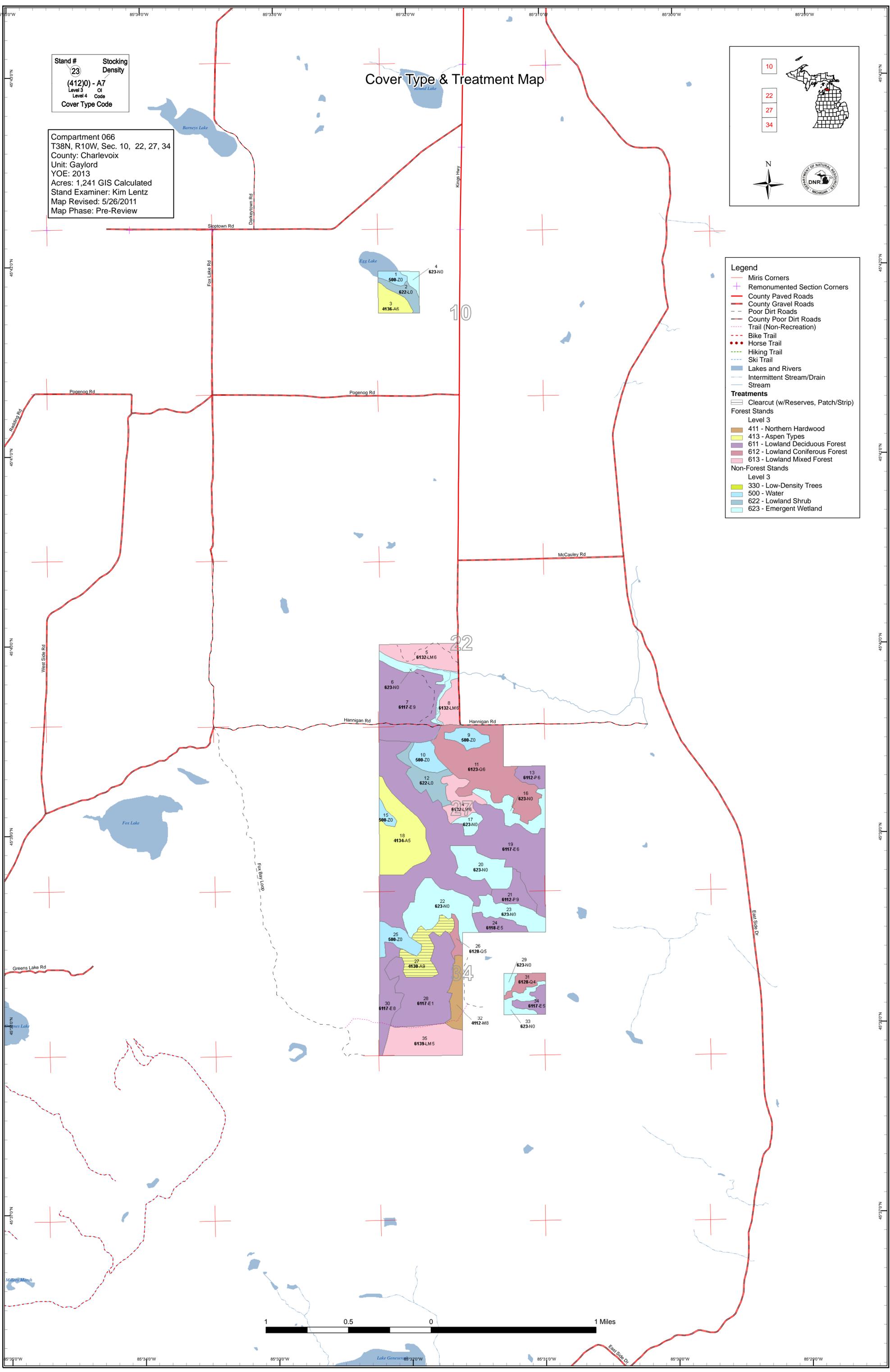
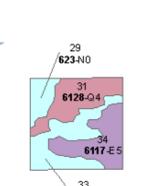
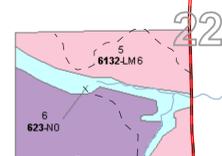
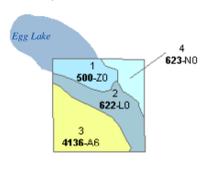
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



Stand Boundary Map

Stand #
23
Stocking
Density
(4120) - A7
Level 3 OI
Level 4 Code
Cover Type Code

Compartment 066
T38N, R10W, Sec. 10, 22, 27, 34
County: Charlevoix
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10
22
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- Trail (Non-Recreation)
- Hiking Trail
- Ski Trail
- Bike Trail
- Horse Trail
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands

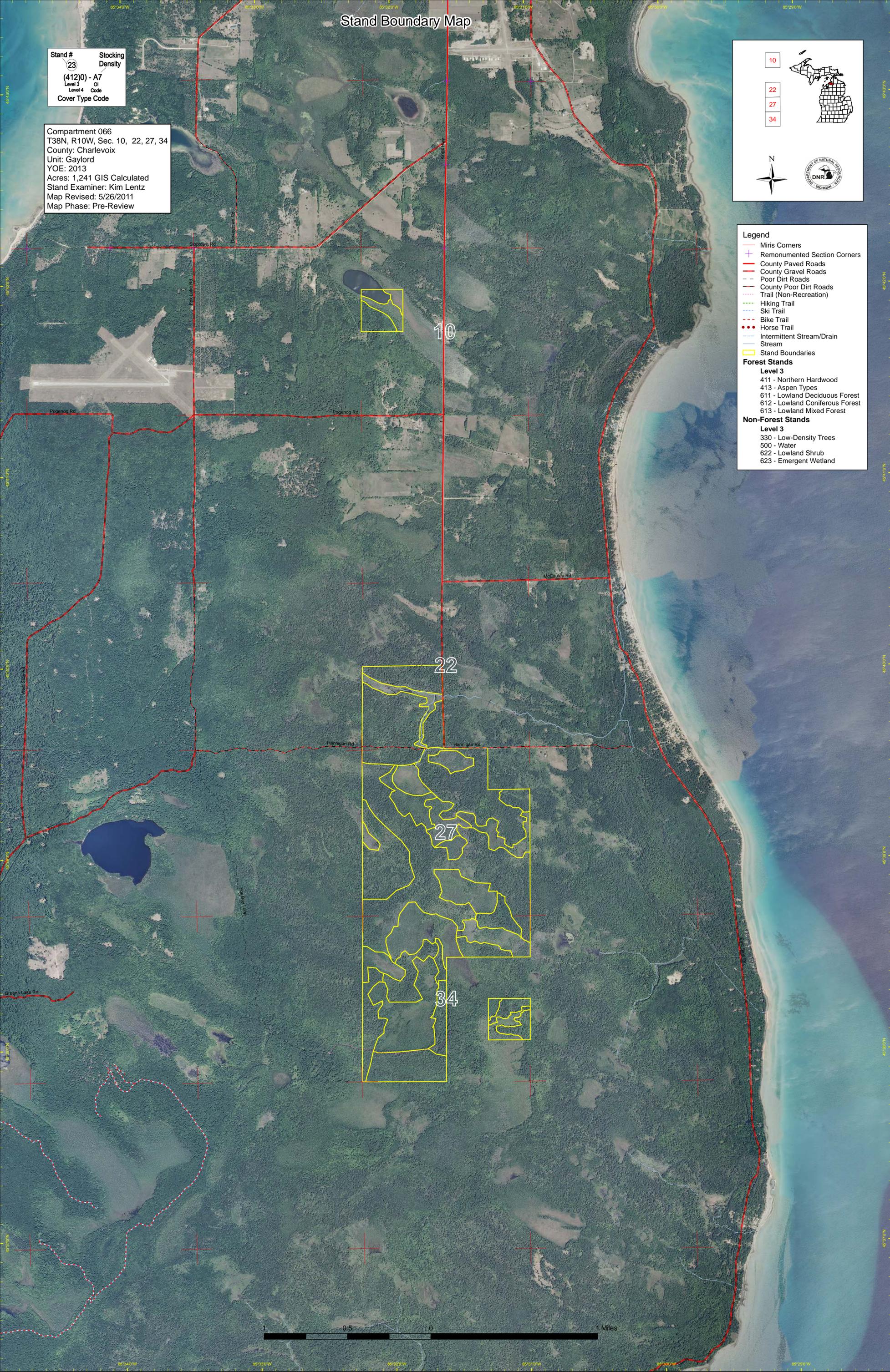
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Non-Forest Stands

Level 3

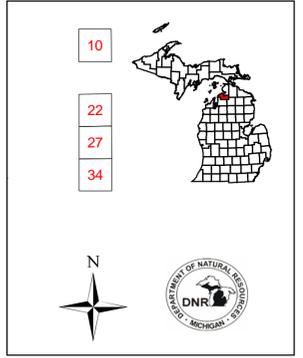
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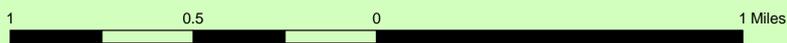
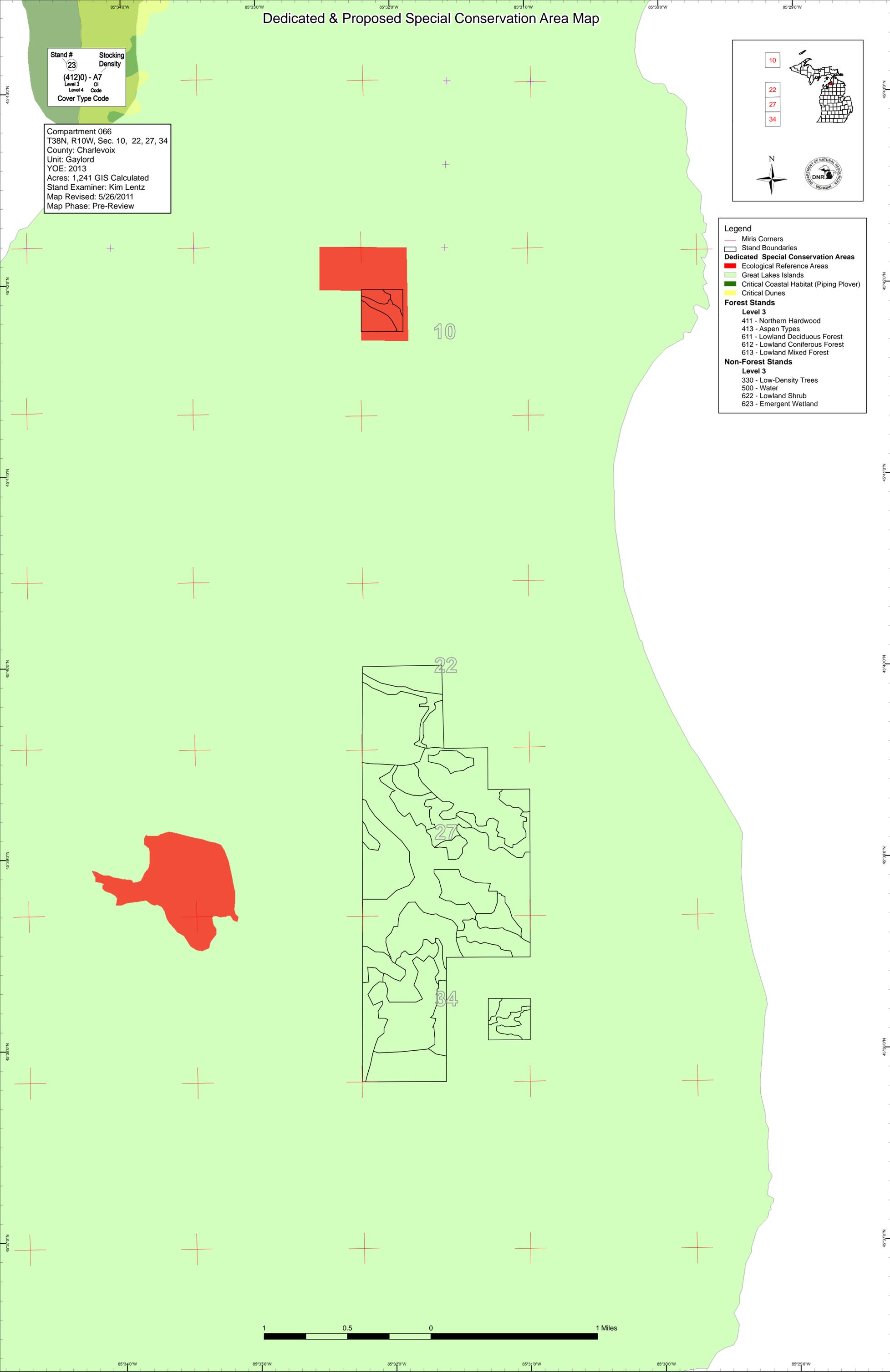
Dedicated & Proposed Special Conservation Area Map

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

Compartment 066
T38N, R10W, Sec. 10, 22, 27, 34
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- Legend**
- Miris Corners
 - Stand Boundaries
 - Dedicated Special Conservation Areas**
 - Ecological Reference Areas
 - Great Lakes Islands
 - Critical Coastal Habitat (Piping Plover)
 - Critical Dunes
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
 - Non-Forest Stands**
 - Level 3**
 - 330 - Low-Density Trees
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	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	120
Lowland Aspen/Balsam Poplar	0	0	0	0	12	0	0	0	20	0	0	0	0	0	0	32
Lowland Conifers	0	0	0	0	0	0	0	0	0	121	0	0	0	0	7	128
Lowland Deciduous	0	0	0	88	0	0	0	34	254	28	0	0	0	0	100	503
Lowland Mixed Forest	0	0	0	0	0	0	24	53	0	0	0	0	0	0	56	133
Lowland Shrub	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Marsh	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19
Water	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
Total	306	0	0	88	12	0	24	86	273	269	0	0	0	0	182	1241



Table 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2013

Compartment 066
Total Compartment Acres: 1241

Acres by Treatment Type

Commercial Harvest - 33	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

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen	33	0	0	0	0	0	33
Total	33	0	0	0	0	0	33

**Table 3 -- Treatments Prescribed
with No Limiting Factor**



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

Other
Comments:

Next
Steps:

**Total Treatment
Acreage Proposed: 0**

S
t
a
n
d

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27 52066027-Cut	33.0	4130 - Aspen	High Density Log	80	Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal

Prescription Final harvest high ground to regenerate aspen.

Specs:

Other Very difficult access within a wetland complex. Previous logging

Comment: Road (Johnny Martin's Trail) is currently flooded and blocked by private ownership.

Next Monitor success of regeneration if harvest occurs.

Steps:

Limiting Factor and No 4A: No market for species/product

Treatment Reason Remote aspen stand in wetland type on Beaver Island.

**Total Treatment
Acreage Proposed: 33.0**

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
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Prescription
Specs:

Other
Comments:

Next
Steps:

**Total Treatment
Acreage Proposed: 0**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	4136 - Aspen, Mixed Conifer	High Density Pole	16.2	85		Remote survey utilizing data from last inventory. Defective aspen overtopping swamp conifer.
5	6132 - Mixed Lowland Forest with Cedar	High Density Pole	38.0	Uneven Age		This stand was logged by Graves leaving defective Q.Aspen log-sized trees in overstory. Swamp conifer species throughout with some variability in density. Patches of excellent regeneration of aspen 30' height, balsam fir 10' height, black spruce 10' height, and white cedar 6"-12" height. Some areas with heavy blowdown and flooded timber. Old logging trail that was established through stand is flooded and not driveable. Unique wetland with beaver dam to the south of this stand.
7	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	99.9	Uneven Age	51-80	Majority of stand is swamp conifer species on the west two-thirds of stand. The southeast portion along an old logging trail was cut heavily by Graves in past. Dense sugar maple regenerating in south with more quaking aspen & balsam fir regen along the north half of the logging trail. Residual Apen logs and white birch are dying out of stand.
8	6132 - Mixed Lowland Forest with Cedar	High Density Pole	17.6	Uneven Age	81-110	Featured stand is swamp conifer with an inclusion of Aspen/red maple mix in southeast corner of stand. Inclusion resulted from a Graves cut, leaving overtopping Q. Aspen/Birch which is dying out of stand. Cut also produced successful regeneration of aspen and balsam fir in understory. (Approx. 23 yrs. old)
11	6123 - Lowland Fir	High Density Pole	109.3	81	81-110	Primarily swamp conifer with intermixed quaking aspen & red maple. White birch mortality in stand. Multiple wet areas dominated by cool season grasses scattered throughout stand. Multiple streams feed into adjacent non-forested wetland.
13	6112 - Lowland Aspen	High Density Pole	12.4	37		Stand examiner collected forested data for this stand. Aspen is regenerating from previous harvest done estimated 30-40 years ago. Conifer component mix.
14	6132 - Mixed Lowland Forest with Cedar	High Density Pole	24.4	54	81-110	Lowland swamp conifer with intermixed quaking aspen & red maple. This forested stand connects the adjacent forested stands to the northeast and southwest in a section with lots of beaver flooded wetland.
18	4134 - Aspen, Spruce/Fir	Medium Density Pole	70.8	81	51-80	Forested stand that was cut by Graves in 1998, and currently regenerating. Large Super Canopy, decadent aspen left in overstory of no timber value. Well established aspen & red maple regeneration.
19	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	253.8	74	81-110	Variable stand with lowland deciduos and swamp conifer mix. Beaver dams have caused some flooding in areas.
21	6112 - Lowland Aspen	High Density Log	19.6	76	111-140	Hardwood-Aspen stand on an upland island surrounded by wetlands.
24	6118 - Lowland Deciduous with Cedar	Medium Density Pole	16.2	85	111-140	Lowland deciduous with defective overtopping quaking aspen & swamp conifer mix.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	6.9	Uneven Age	51-80	Mixed stand with swamp conifer & lowland hardwood. Red maple & white birch dying out. Transitional stand between northern hardwood and marsh.
27	4130 - Aspen	High Density Log	33.0	80	111-140	Nice stand with decent Big Tooth Aspen mixed with red maple poles. Heavy balsam fir understory. Some wet areas. Some blowdown & mortality starting. B.T. Aspen site index = 70
28	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	88.4	20		Stand examiner determined there was 25-50% tree cover in this stand. Scattered red maple & paper birch 30' tall. Some 40' tall tamarak. A few cedar & balsam fir. Standing water. Tag alder also heavy.
30	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	33.6	65	1-50	Stand is wet. Paper birch & aspen mortality and blowdown common. Stand is converting to swamp conifer species predominantly balsam fir & cedar. Quaking aspen site index = 65.
31	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	11.6	80	1-50	Water flooded stand. Most of cedar is standing dead due to beaver flooding in area. Some white pine survived flooding on higher soil mounds. Extremely difficult to access due to excessive windthrow and water. Parcel is also surrounded by private.
32	4112 - Maple, Beech, Cherry Association	Medium Density Log	19.4	Uneven Age	51-80	Northern Hardwood log stand selectively marked and cut by Graves in 1998. Noted beech scale with some limb breakage and mortality in sawlog size beech. Access road (old Johnny Martin Trail) into this stand is no longer driveable, but completely flooded.
34	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	11.5	80	1-50	Remote stand with difficult access across windthrown, beaver flooded area, and landlocked by private.
35	6139 - Mixed Lowland Forest	Medium Density Pole	52.8	65	51-80	Mixed stand with lowland conifer and deciduous species. Standing water. Some mortality. Scattered cedar understory. Patches of tag alder common. Scattered elm and large diameter white pine.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	50 - Water	6.9	N/A	Unspecified	
2	6220 - Alder/willow	11.7	N/A	Unspecified	
4	6230 - Cattail	5.6	N/A	Unspecified	
6	6230 - Cattail	19.0	N/A	Unspecified	
9	50 - Water	14.6	N/A	Unspecified	
10	50 - Water	17.9	N/A	Unspecified	
12	6220 - Alder/willow	27.0	N/A	Unspecified	Change to reflect non-forested stand with tag alder, lowland brush.
15	50 - Water	5.6	N/A	Unspecified	
16	6239 - Mixed Emergent Wetland	24.3	N/A	Unspecified	
17	6239 - Mixed Emergent Wetland	9.0	N/A	Unspecified	
20	6239 - Mixed Emergent Wetland	38.2	N/A	Unspecified	
22	6239 - Mixed Emergent Wetland	59.7	N/A	Unspecified	
23	6239 - Mixed Emergent Wetland	29.9	N/A	Unspecified	
25	50 - Water	19.0	N/A	Unspecified	
29	6239 - Mixed Emergent Wetland	4.4	No	Low (NonForested)	
33	623 - Emergent Wetland	12.5	N/A	Unspecified	



7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments
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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
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.
SCA	Great Lakes Islands	Great Lakes Islands provide significant habitat for numerous species, including many rare plants and animals, several of which are endemic or largely restricted to the Great Lakes region. Due to their isolation, islands provide good examples of many Great Lakes-associated natural communities and ecosystems, and thus have potential to provide insights for understanding the consequences of human disturbance on the increasingly fragmented ecosystems of the mainland.