

CADILLAC FOREST MANAGEMENT UNIT**COMPARTMENT REVIEW PRESENTATION****COMPARTMENT # 104 ENTRY YEAR: 2008****Compartment Acreage (GIS Acres):1722 County: Missaukee**

Revision Date: 11/09/2006 4:09 PM**Stand Examiner:** Steven Eisele Forest Technician, Manton Field Office**Legal Description:** T21N, R05W, sections 29,30,31,32.**RMU (if applicable):230.** Hab/veg. Timber intensive.**Management Goals:** Maintain cover types and age class diversity. Red pine is now getting to utility pole size.**Soil and Topography:** Lupton muck, ribicon sands and Montcalm. Level to gently rolling terrain.**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Solid state ownership except for consumers energy land in section 31 and a few private residences along stoney corners rd. Dispersed hunting is the main activity in the compartment, some snowmobile use.**Unique, Natural Features (include only non-site specific and non-sensitive information):** Cranberry lake is SW corner of compartment. Secretive locust and eagles both listed in compartment. Wood turtle, elk toe mussel and slipper shell mussel listed.**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** Nothing listed in compartment. Nothing listed within the compartment.**Special Management Designations or Considerations:** Two pipelines in the compartment, one active on the east side, one abandoned on the west side.**Watershed and Fisheries Considerations:****Wildlife Habitat Considerations:** This compartment is one of 9 in RMU 230. Major management emphasis is to maintain cover types and age class diversity. Featured wildlife species are deer, ruffed grouse, and woodcock. The RMU agreement called for 300 more acres of aspen at the expense of 300 acres of oak, and 40 more acres of white pine/red pine at the expense of 40 acres of jack pine. Since that agreement the aspen acreages has increased about 200 acres, the white pine/red pine acreage has increased about 750 acres. Oak acreage has decreased over 1700 acres. (L. Smith, 11/2/06)

Mineral Resource and Development Concerns and/or Restrictions:**COMPARTMENT 104**

Sections 29 - 32, T21N-R5W, Missaukee County

Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay/shale in other parts of the State. A gravel pit is located in Section 19 and potential is good. The compartment is located one mile east of Cranberry Lake Field. The field has produced nearly 2 million BO from the Richfield Formation and over 7.5 Bcf gas from the Stray Sandstone. The field is now in secondary recovery and gas storage operations. The southern two thirds of the Compartment are leased for gas storage purposes.

Vehicle Access: A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Also indicated are forest roads and trails under the jurisdiction of the DNR that are proposed for abandonment. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally.

Proposed new roads or roads recommended for substantial improvement are noted below:

Survey Needs: Adequate corners through out the compartment.

Recreational Facilities and Opportunities: Hunting and snowmobiling are the main activities.

Fire Protection: This area has had a history of moderate sized fires. There is the potential for larger fires in this compartment. Initial attack is from the Houghton Lake Field Office for this area.

Additional Compartment Information:

The following parcels are recommended for acquisition if they become available for sale:

Cover Type details and proposed treatments are listed in the attached reports:

- ◆ **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 old growth**



Stage 1 Acres Summary By Level 3 Cover Type By Age

Compartment: 63104

Date: 11/2/2006

	0	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	>89	Uneven Age	Grand Total
Aspen Types	0	99.5	100.3	0	86	83.7	22.3	12.9	0	0	0	0	404.7
Emergent Wetland	84.9	0	0	0	0	0	0	0	0	0	0	0	84.9
Herbaceous Openland	46.3	0	0	0	0	0	0	0	0	0	0	0	46.3
Low-Density Trees	30.6	0	0	0	0	0	0	0	0	0	0	0	30.6
Lowland Coniferous Forest	0	0	0	0	0	0	3	6.6	0	13.5	202.6	0	225.7
Lowland Deciduous Forest	0	0	0	9.9	0	0	31.2	0	0	33.6	0	0	74.7
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	7.2	0	7.2
Lowland Shrub	93.8	0	0	0	0	0	0	0	0	0	0	0	93.8
Mixed Upland Conifers	0	0	0	0	0	0	0	0	9.2	0	0	0	9.2
Mixed Upland Deciduous	0	0	0	0	0	0	16.5	59.2	0	39.1	0	0	114.8
Natural Pines	0	0	0	0	0	6.9	16.2	0	0	0	3.7	0	26.8
Northern Hardwood	0	0	0	0	21.7	0	85.8	13.5	0	0	0	0	121
Oak Types	0	0	0	0	0	0	21.7	14.3	122.9	0	25.8	0	184.7
Planted Pines	0	0	0	0	0	0	94.5	192.2	0	0	0	0	286.7
Road/Parking Lot	0.8	0	0	0	0	0	0	0	0	0	0	0	0.8
Water	7.7	0	0	0	0	0	0	0	0	0	0	0	7.7
Grand Total	264.1	99.5	100.3	9.9	107.7	90.6	291.2	298.7	132.1	86.2	239.3	0	1719.6

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 1
10 10-single	7.1	Mixed Northern Hardwoods	9	60	55	Single Tree Selection	Regeneration	Pine, Oak Mix	
<u>Rev</u> Good access. Dry ground									
<u>Cmnt:</u>									
<u>Rev</u> Oak and pine mixed stand. Single tree mark oak and pine. Remove other species.									
<u>Spec</u>									
<u>Next</u>									
<u>Steps:</u>									
15 15-Thin	6.9	Natural Pine, Mixed Deciduous	6	46	0	Crown Thinning	Intermediate Cut	Natural Mixed Pine	
<u>Rev</u> Dry ground. Good access									
<u>Cmnt:</u>									
<u>Rev</u> Mix of red and white pine. Remove larger diameters. move residual towards utility pole. Final aspen and maple									
<u>Spec</u>									
<u>Next</u>									
<u>Steps:</u>									
16 16-Finalreserve	85.8	Mixed N. Hardwood - Aspen	6	55	0	Clearcut with Reserves	Regeneration	Aspen, Mixed Deciduous	
<u>Rev</u> Stand boundary borders old cuts. Fingers and jags around large area. Access may be difficult in spots. Hilly ground but dry.									
<u>Cmnt:</u>									
<u>Rev</u> Good quality oak and single stem red maple should be marked to leave. Check possible green up issue with comp. to west. North portion of stand is wet with a lot of paper birch.									
<u>Spec</u>									
<u>Next</u>									
<u>Steps:</u>									
17 17-Prep	13.4	Other Mixed Upland Deciduous	1	60	0	Scarification	Regeneration		
<u>Rev</u> Hilly not good access.									
<u>Cmnt:</u>									
<u>Rev</u> This was cut last time with very poor success on regrowth. TMS should look at for suggestions on what to do.									
<u>Spec</u>									
<u>Next</u>									
<u>Steps:</u>									
19 19-finalreserve	6.1	Mixed Upland Deciduous with Conifer	6	50	0	Clearcut with Reserves	Regeneration	Aspen, Mixed Deciduous	
<u>Rev</u> Good access, hilly terrain. Dry ground									
<u>Cmnt:</u>									
<u>Rev</u> Final leave oak									
<u>Spec</u>									
<u>Next</u>									
<u>Steps:</u>									
1 1-FinalRP	2.5	Planted Red Pine	8	50	0	Clearcut	Site Prep	Planted Red Pine	
<u>Rev</u> Easy access right off pavement. Level and dry. Find private corners.									
<u>Cmnt:</u>									
<u>Rev</u> Final harvest red pine utility poles. Re plant red pine.									
<u>Spec</u>									
<u>Next</u>									
<u>Steps:</u>									

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 2
30 30-thin	120.6	Planted Red Pine	6	65	0	Crown Thinning	Intermediate Cut	Pine, Oak	

Rev Good access A little hilly. Dry ground
Cmnt:

Rev Take out utility poles, thin some oak. Remove other species. Some areas of smaller diameters.
Spec

Next
Steps:

49 49-jpfinal	19.2	Planted Jack Pine	6	54	0	Patch or Strip Clearcut	Site Prep	Planted Red Pine	
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Rev Good access. level ground.
Cmnt:

Rev Remove jp strips re plant with red pine
Spec

Next
Steps:

4 4-thin	23.3	Mixed Upland Deciduous with Conifer	6	60	0	Crown Thinning	Intermediate Cut	Planted Red Pine, Mixed Deciduous	
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Rev Good access, dry ground. old oil pads in area.
Cmnt:

Rev Thin out utility poles. Remove other species. Use old oil pad openings for landings. Leave oak.
Spec

Next
Steps:

50 50-Final	4.3	Lowland Deciduous, Mixed Coniferous	6	50	0	Clearcut	Regeneration	Aspen, Mixed Deciduous	
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Rev Access through other aoi #53. Ground is low and wet.
Cmnt:

Rev Final harvest. Low quality/small diameters. Cut with neighboring stand. Winter cut for better sprouting.
Spec

Next
Steps:

53 53-Final	10.5	Aspen	6	47	0	Clearcut with Reserves	Regeneration	Aspen, Mixed Deciduous	
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Rev Access through pine from the south. Level ground but some wet areas.
Cmnt:

Rev Final harvest. Leave some oak. All big tooth aspen, some large diameters.
Spec

Next
Steps:

64 64-single	38.6	Red Oak	9	77	0	Single Tree Selection	Regeneration	Red with White Oak	
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Rev Good road access. Establish private line on east side.
Cmnt:

Rev Mark larger diameter red and whit oak to cut. Leave BA average around 80. Remove aspen and red maple.
Spec

Next
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 3
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6	6-Thin	71.7	Planted Red Pine, Mixed Deciduous	6	60	0	Crown Thinning	Intermediate Cut	Planted Red Pine
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Rev
Cmnt: Good access hilly in spots but dry ground.

Rev
Spec Thin out utility poles remove other species. Thick red maple understory.

Next
Steps:

73	73-group	9.2	Mixed Upland Conifers	6	74	0	Group Selection	Regeneration	Natural White Pine, Mixed Deciduous
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Rev
Cmnt: Some wet spots. access off of pipeline.

Rev
Spec Thin white pine. Remove aspen and red maple. Leave cedar. North part of stand has very little aspen

Next
Steps:

74	74- finalreserve	12.9	Aspen	9	67	0	Clearcut with Reserves	Regeneration	Aspen, Mixed Deciduous
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Rev
Cmnt: Access through old sale. Some low areas.

Rev
Spec Final harvest aspen and red maple. Leave oak

Next
Steps:

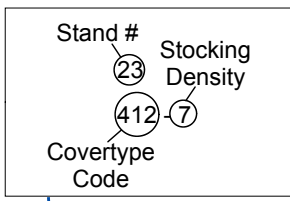
**Total Treatment
Acreage Proposed: 431.9**

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 1
96	696_small_1- Cut	6.1	Lowland Cedar	6	95	0	Clearcut	Habitat Cut	Aspen, Mixed Conifer	
<u>Limiting Factor and Comment:</u> 2F: Too wet										
<u>Rev Cmnt:</u> no access										
<u>Rev Spec:</u> Wildlife hab cut. Leave cedar										
<u>Next Steps:</u>										
83	83-Habcut	14.3	Aspen, Mixed Conifer	9	53	0	Clearcut	Habitat Cut	Aspen, Cedar	
<u>Limiting Factor and Comment:</u> 2F: Too wet										
<u>Rev Cmnt:</u> No access										
<u>Rev Spec:</u> Wildlife cut. Leave cedar										
<u>Next Steps:</u>										
86	86_island	3.4	Lowland Coniferous, Mixed Deciduous	6	97	0	Clearcut	Habitat Cut	Aspen, Mixed Conifer	
<u>Limiting Factor and Comment:</u> 2F: Too wet										
<u>Rev Cmnt:</u> Island within large aoi										
<u>Rev Spec:</u> Wildlife hab cut. Leave cedar										
<u>Next Steps:</u>										
96	96_small-Cut	3.0	Lowland Cedar	6	95	0	Clearcut	Habitat Cut	Aspen, Mixed Conifer	
<u>Limiting Factor and Comment:</u> 2F: Too wet										
<u>Rev Cmnt:</u> No access										
<u>Rev Spec:</u> Wildlife hab cut . Leave cedar										
<u>Next Steps:</u>										
Total Treatment Acreage Proposed: 26.9										

Compartment 104
 T21N, R5W, Sec. 29, 30, 31, 32
 County: Missaukee
 Unit: Cadillac
 YOE: 2008
 Acres: 1,722 GIS Calculated
 Stand Examiner: Steve Eisele
 Map Revised: 11/08/2006
 Map Phase: Pre-review

Field Map

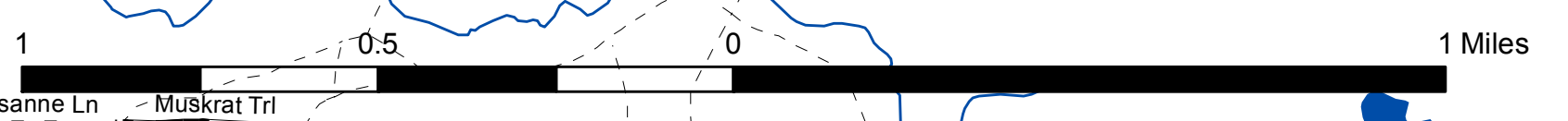
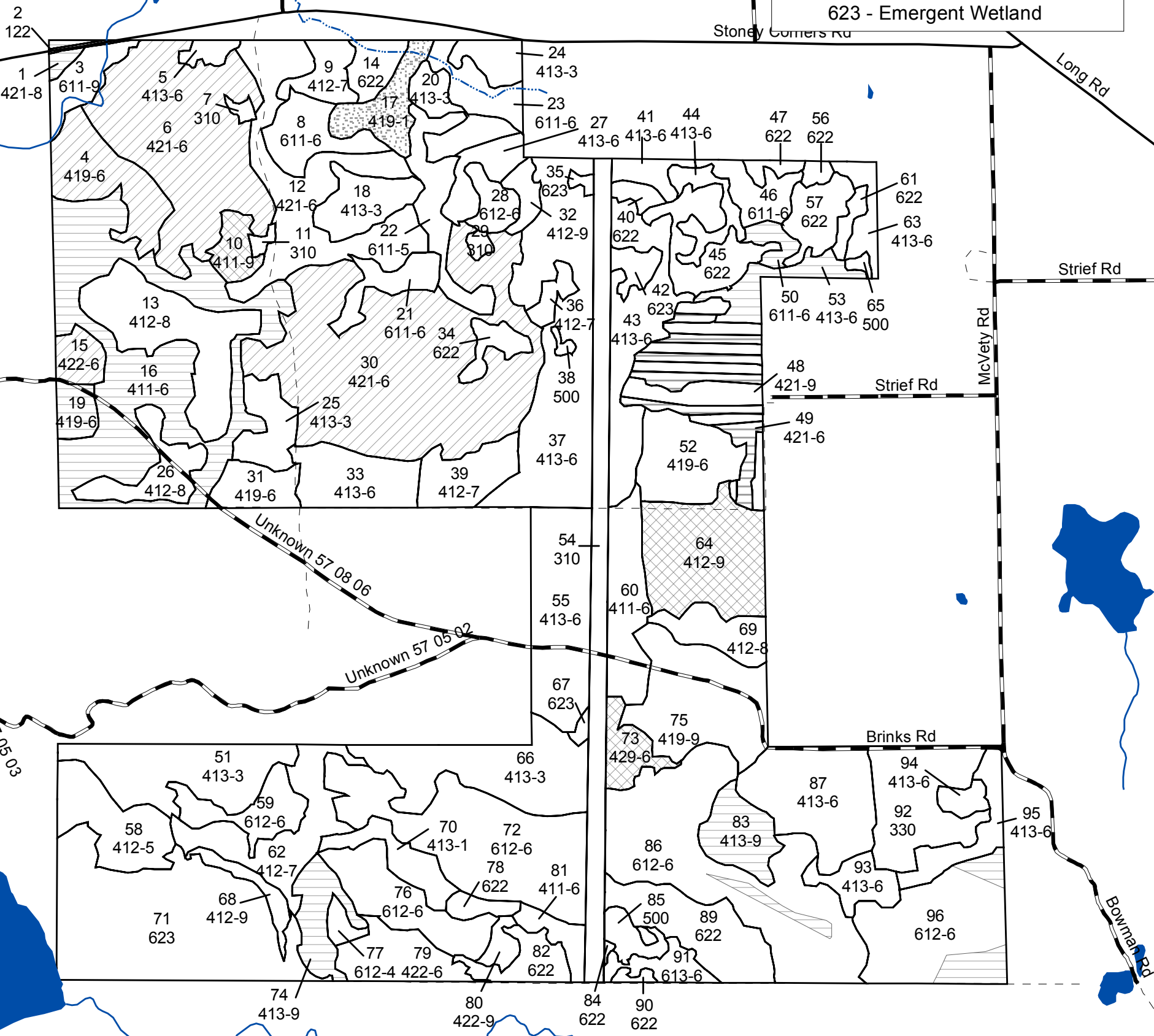
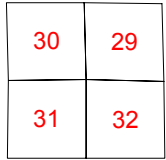


Multi-part Stands:
 Stand 1, 2 parts, split by stand 2
 Stand 49, 6 parts, alternating with stand 48
 Stand 48, 8 parts, alternating with stand 49

Stocking Density	Definition
1	Sapling low
2	Sapling medium
3	Sapling well
4	Pole timber low
5	Pole timber medium
6	Pole timber well
7	Saw timber low
8	Saw timber medium
9	Saw timber well

Legend

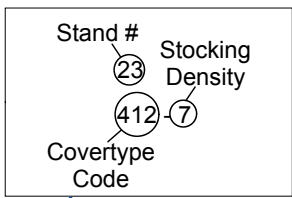
- Paved Roads
 - - - Gravel Roads
 - - - Poor Dirt Roads
 - Intermittent Stream/Drain
 - Stream
 - Lakes and Rivers
 - Stands
 - Clearcut
 - Clearcut with Reserves
 - Patch or Strip Clearcut
 - Crown Thinning
 - Single Tree Selection
 - Group Selection
 - Scarification
- Forest Stands**
- 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 429 - Mixed Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



Susanne Ln Muskrat Trl

Compartment 104
 T21N, R5W, Sec. 29, 30, 31, 32
 County: Missaukee
 Unit: Cadillac
 YOE: 2008
 Acres: 1,722 GIS Calculated
 Stand Examiner: Steve Eisele
 Map Revised: 11/08/2006
 Map Phase: Pre-review

Cover Type

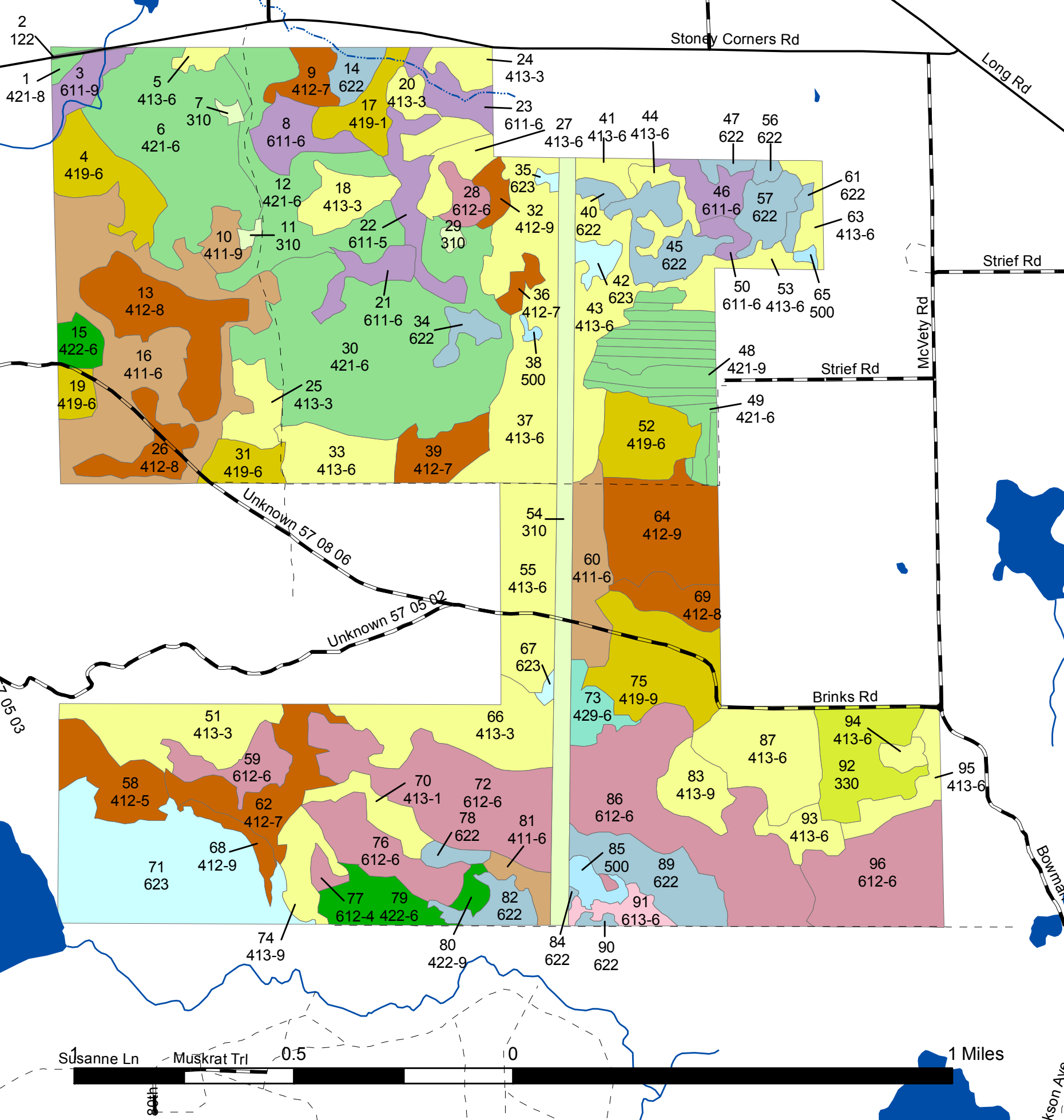
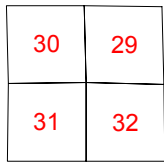


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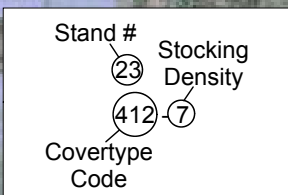
Legend

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Treatment



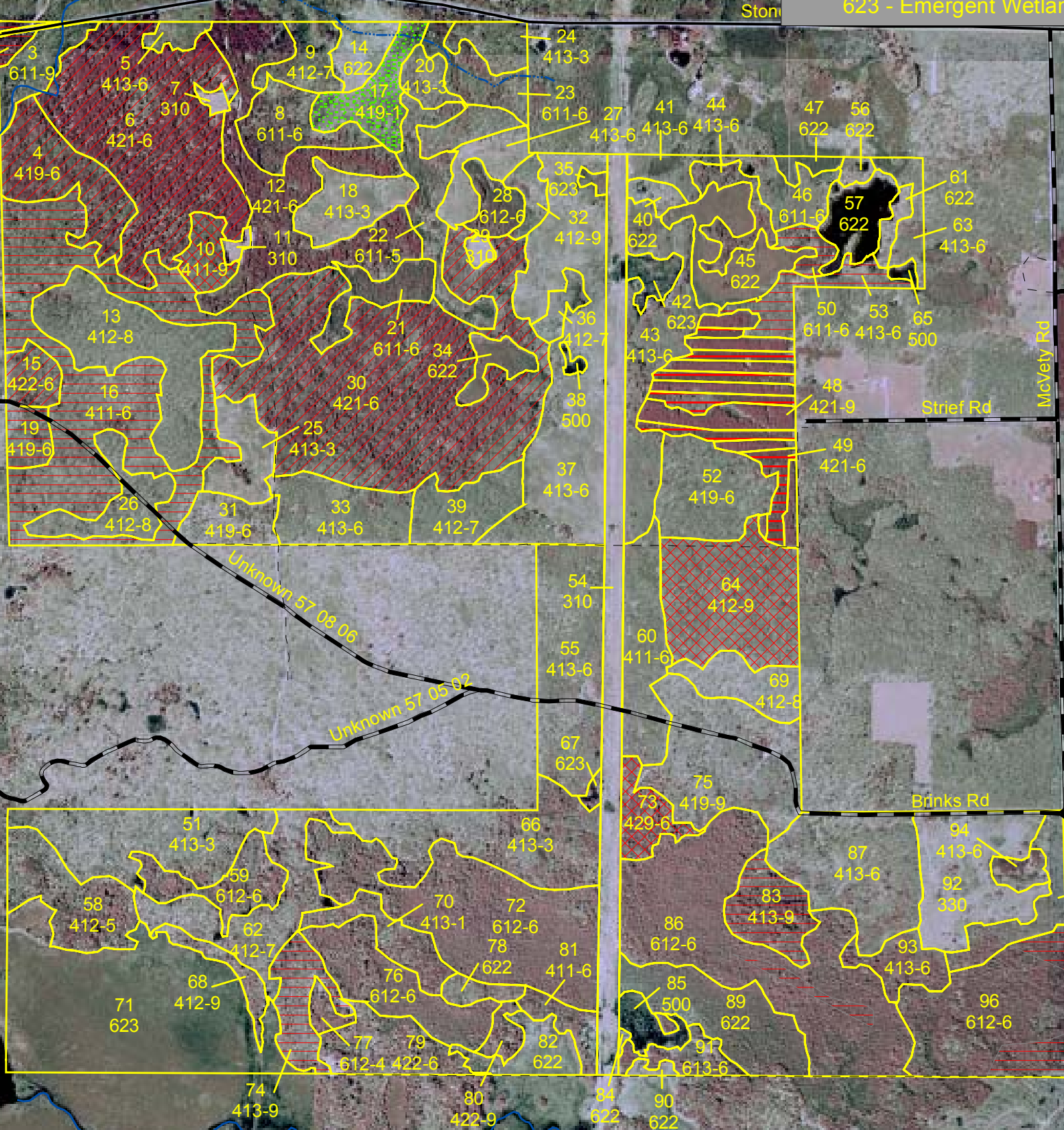
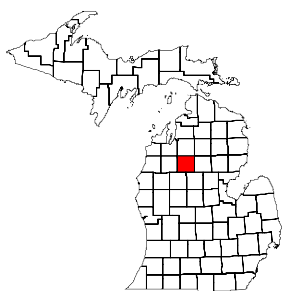
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30	29
31	32



Susanne Ln Muskrat Trl 0.5 0 1 Miles