



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 192

Entry Year 2016

Acreage: 1,564

County Iron

Management Area: Michigamme Reservoir

Revision Date: 07/25/2014

Stand Examiner: Ed Rice

Legal Description:

T45N r31W section 29, 30, 31

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Continue to sustainably balance the aspen age class acres. Get the hardwood stands on a 20 year alternating cutting cycle towards regulation. Protect the riparian areas and transition zones during management activity.

Soil and topography:

Soils consists of silt loams to fine sandy loams. The lowland areas are muck complexes.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The compartment is fairly contiguous in state ownership with a few private inholdings. State land is adjacent with industrial forest to the north. Active forest management has occurred and will continue within and surrounding the compartment. Deer hunting by far dominates the recreational use patterns.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

None identified

Watershed and Fisheries Considerations:

Margeson Creek and Lake 32 Creek. Both are historically and continue to be heavily impacted by beaver. Follow BMP guidelines for stream buffers.

Wildlife Habitat Considerations:

Any wintering deer are limited to the swamp conifers and immediately adjacent uplands. The large expanses of northern hardwoods do not support deer in this area during the winter. Forest management should retain upland conifer cover to improve grouse and woodcock habitat.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and minor moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Archean Granite/Gneiss subcrops below the glacial drift. This could be used for dimension stone. The Michigan discovery of kimberlite was near Lake Ellen, approximately six miles to the south. The Porter and Warner abandoned iron mines are located nine miles to the southwest. This area has been previously leased for metallic exploration and there may still be potential. Gravel pits are not located nearby, but there should be some potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Good access into sections 29 and 30. No vehicle access into section 31 due to extremely wet swamps. Winter logging access may be possible into this area.

Survey Needs:

sec 29: W 1/16, NW 1/16, E 1/16. section 28, 29: 1/4 corner. Section 29, 30: S 1/16. section 30: S 1/16, SE 1/16, SW 1/16. section 30, 25: 1/4 corner

Recreational Facilities and Opportunities:

None

Fire Protection:

Overall fuel types are not conducive to sustaining a high intensity fire. There are several large bog areas that can support a short duration sustained run given the alignment of fuels and weather however. Equipment access is good in sections 29 and 30 to non-existent in section 31. A fire in section 31 would likely require walk in with pumps and hose lays.

Additional Compartment Information:

The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

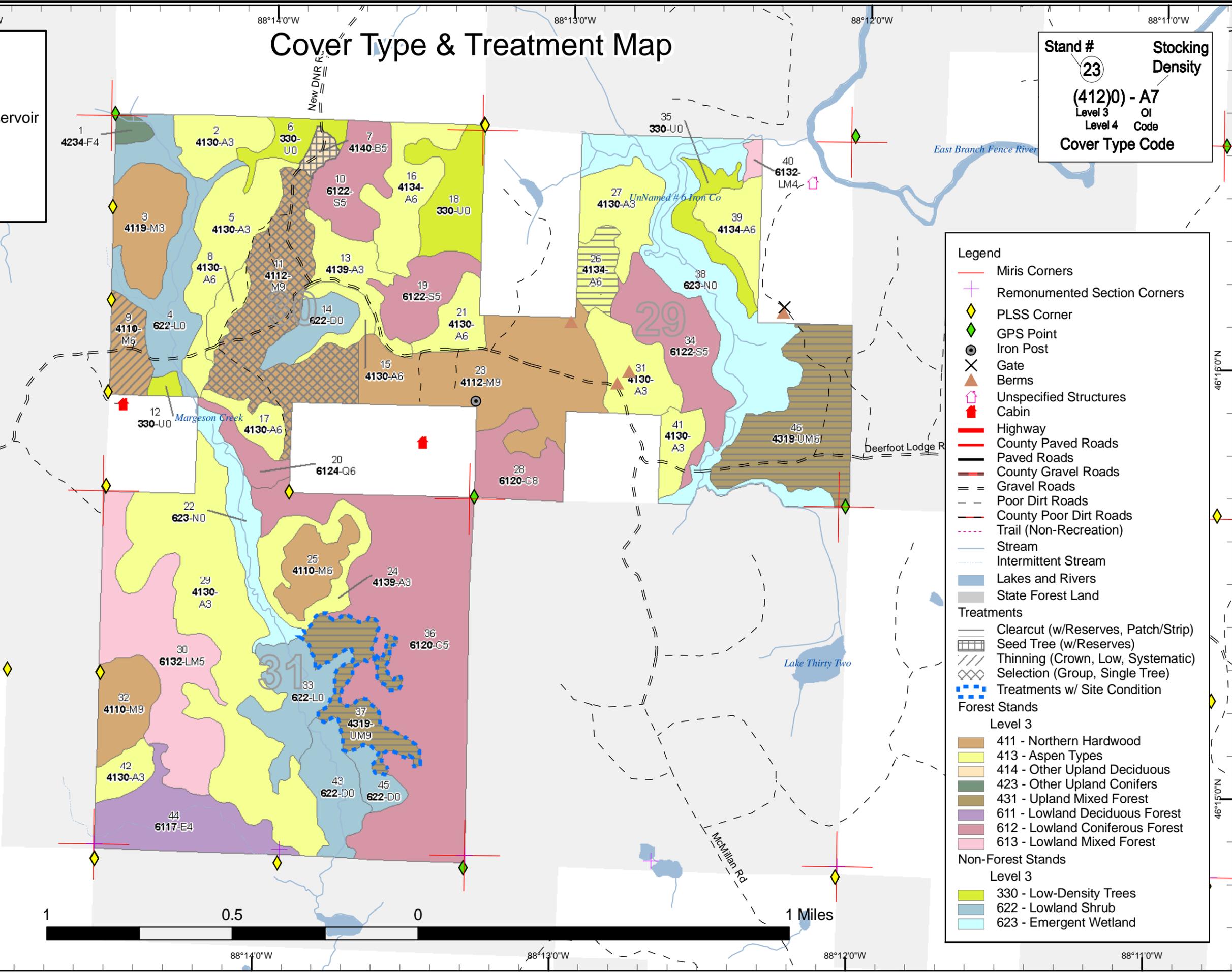
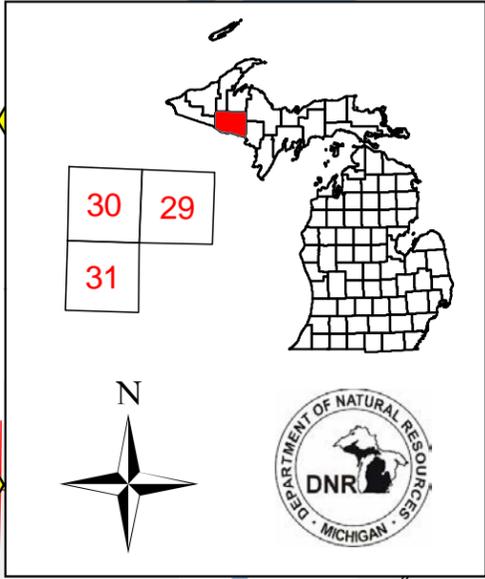
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 192
 T45N R31W Sections 29-31
 County: Iron
 Unit: Crystal Falls
 Management Area: Michigamme Reservoir
 YOE: 2016
 Acres: 1,564 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 08/27/2014
 Map Phase: Pre-Review

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



Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- GPS Point
- Iron Post
- Gate
- Berms
- Unspecified Structures
- Cabin
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)
- Treatments w/ Site Condition

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

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

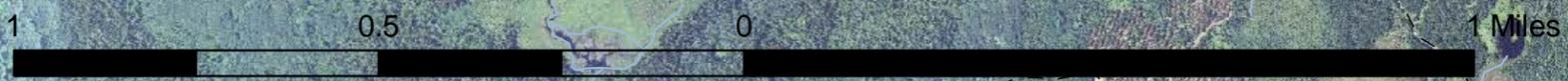
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Stand Boundary Map

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

30 29
 31

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 DEPARTMENT OF NATURAL RESOURCES
 DNR
 MICHIGAN



Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- GPS Point
- Iron Post
- Gate
- Berms
- Unspecified Structures
- Cabin
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
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- Intermittent Stream
- Stand Boundaries

Forest Stands

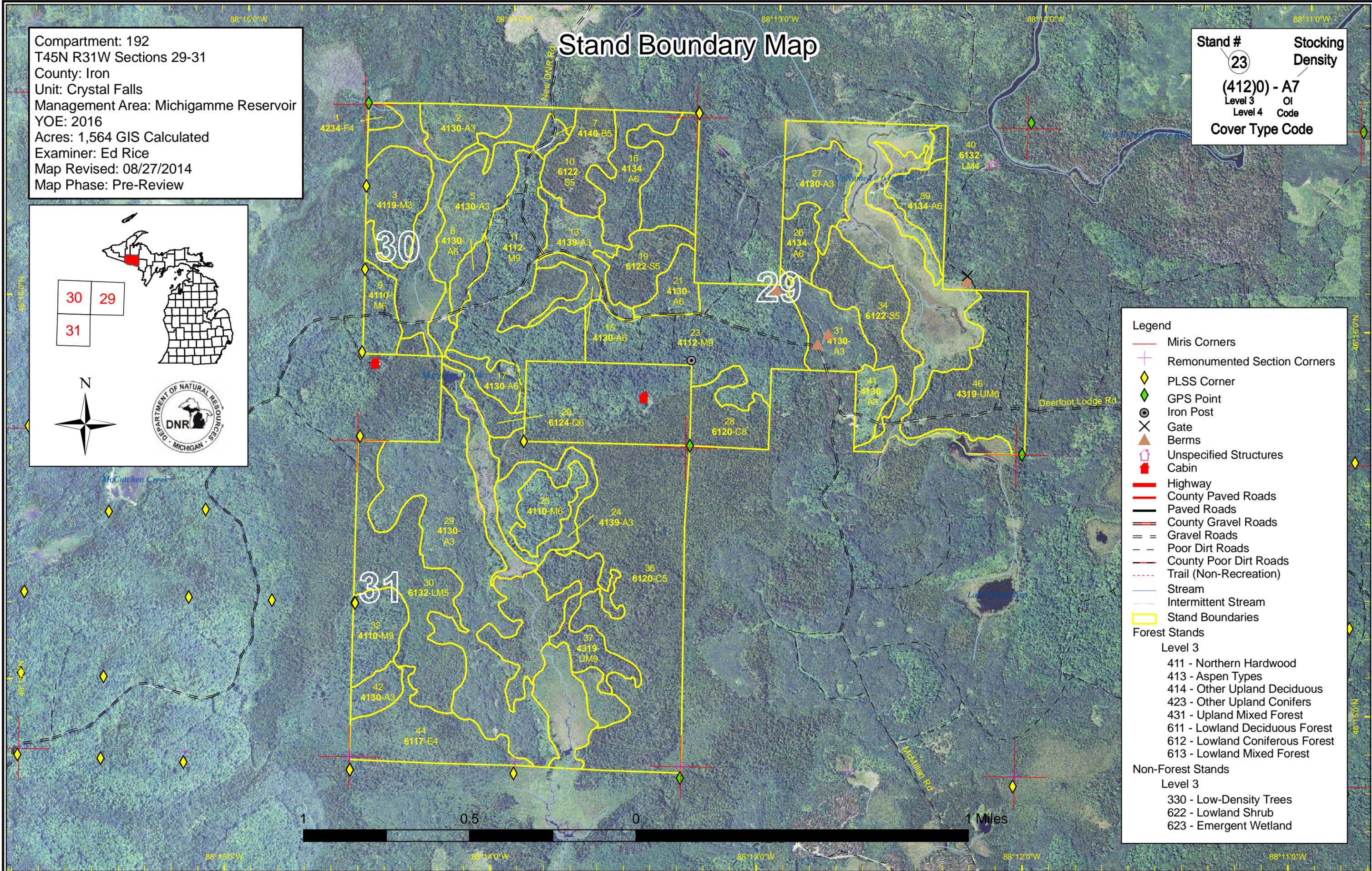
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Non-Forest Stands

Level 3

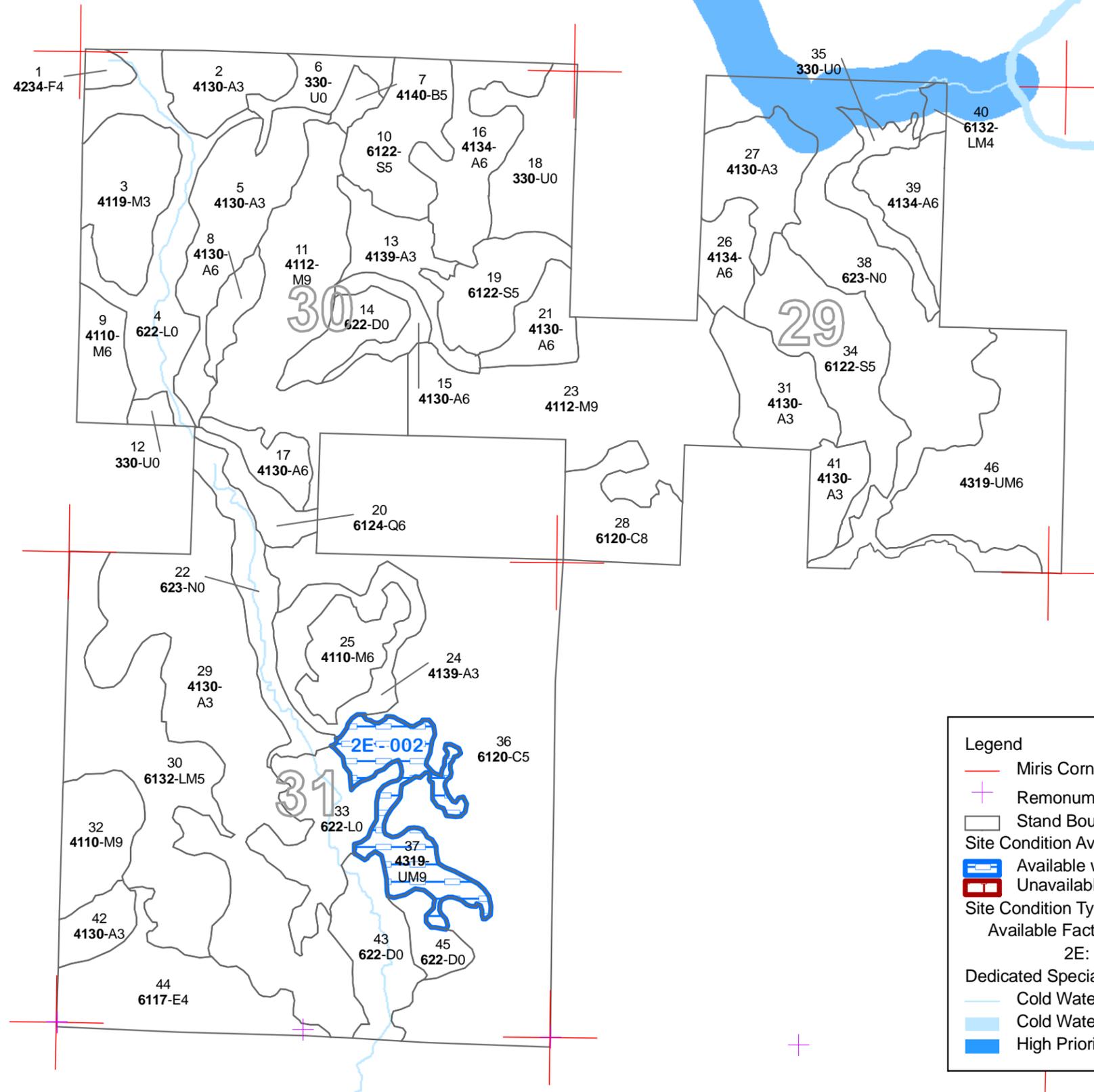
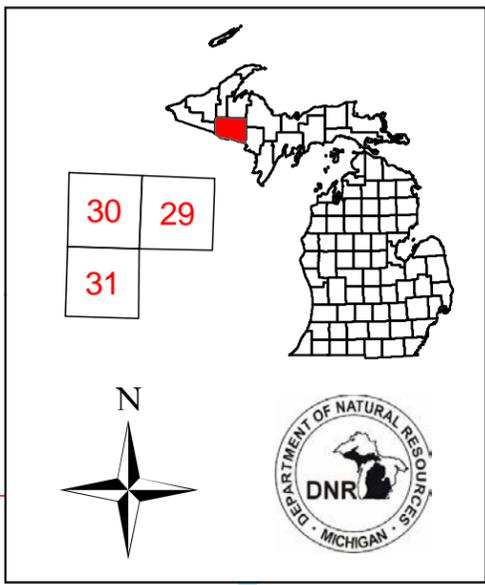
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Special Conservation Areas & Site Conditions Map

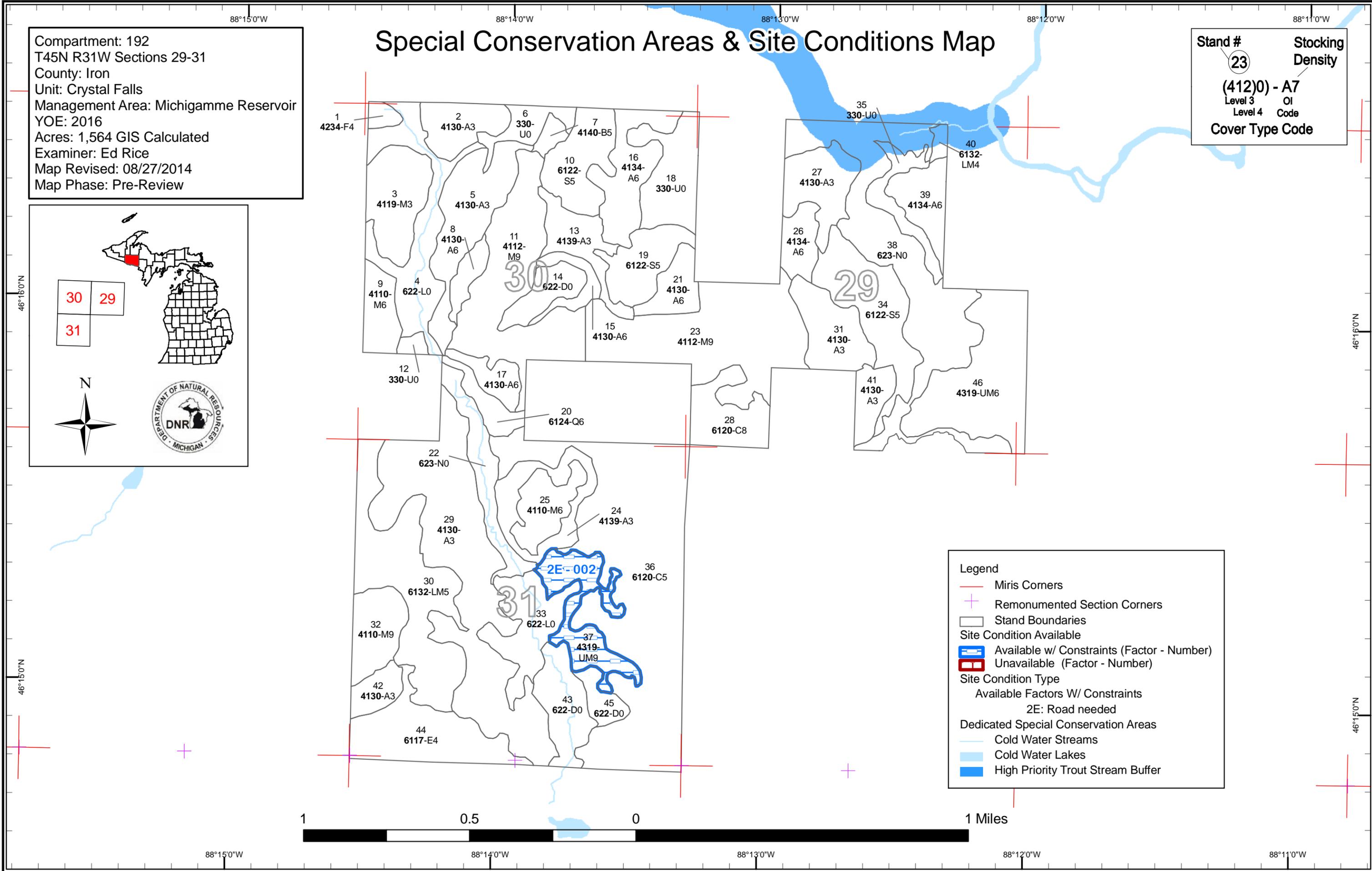
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Stand #
 23
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



Legend

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- ▨ Available w/ Constraints (Factor - Number)
- ▩ Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 2E: Road needed
- Dedicated Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	0-9	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	13	166	155	97	0	0	0	0	0	0	0	0	0	0	431
Cedar	0	0	0	0	0	0	0	0	0	177	0	0	26	0	203
Low-Density Trees	62	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Lowland Conifers	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
Lowland Deciduous	0	0	0	46	0	0	0	0	0	0	0	0	0	0	46
Lowland Mixed Forest	0	0	0	3	0	0	0	0	0	0	0	0	75	0	78
Lowland Shrub	79	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Lowland Spruce/Fir	0	0	0	0	0	0	102	0	0	0	0	0	0	0	102
Marsh	125	0	0	0	0	0	0	0	0	0	0	0	0	0	125
Northern Hardwood	0	33	0	0	0	0	16	193	0	23	0	0	0	0	266
Paper Birch	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
Treed Bog	51	0	0	0	0	0	0	0	0	0	0	0	0	0	51
Upland Mixed Forest	0	0	0	0	67	0	32	0	0	0	0	0	0	0	99
Upland Spruce/Fir	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Total	331	199	155	157	67	4	155	193	0	201	0	0	101	0	1564



Report 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2016

Compartment 192
Total Compartment Acres: 1,564

Acres by Treatment Type

Commercial Harvest - 212 Tree Planting - 0 Other - 0
 Habitat Cut - 0 Opening Maintenance - 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 Types	14	0	0	0	0	0	14
Northern Hardwood	0	78	0	0	16	0	94
Other Upland Deciduous	0	0	5	0	0	0	5
Upland Mixed Forest	99	0	0	0	0	0	99
Total	113	78	5	0	16	0	212

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7 12192007-Cut	4.7	4140 - Other Upland Deciduous	Medium Density Pole	60	51-80	Harvest	Seed Tree with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription cut all merchantable w birch and maple. leave 1 - 2/ac relatively healthy w birch. leave 1/ac r maple for diversity and seed source. leave all conifers and y birch. protect advanced maple, aspen, and conifer regeneration. MO maple, birch, aspen, conifer.

Other stand had aspen only cut out last harvest. aspen saplings 10 - 15' tall. w birch in fair shape, some top die back. W side of road has more w birch top die back and mortality. scattered cedar along edges

Next Steps: scarification

Proposed Start Date: 10/01/2015

9 12192009-Cut	16.4	4110 - Sugar Maple Association	High Density Pole	63	111-140	Harvest	Crown Thinning	411 - Northern Hardwood	Cmpt. Review Proposal
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Prescription thin to 70 - 90 BA - concentrate on removing eutypella. leave basswood (very minor species), and conifers

Other fair to good h maple poletimber. scattered sawtimber throughout. eutypella present

Next Steps:

Proposed Start Date: 10/01/2015

11 12192011-Cut	77.8	4112 - Maple, Beech, Cherry Association	High Density Log	73	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
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Prescription R maple is at value - concentrate removals, focus on leaving better formed h maple. thin to 70 BA with canopy gaps. In areas purer to r maple and near to off site for quality maple production, shelterwood to 40 - 50 BA. no cedar, hemlock, pine, y birch, cherry or oak. only cut spruce/fir if needed for access.

Other good amounts of h maple saplings 5 - 20' tall. widely scattered upland cedar. fir saplings/poletimber at edges or in more marginal site within the stand. thick hazel in areas. NW edge has windthrow. H maple sawtimber fair quality 2 - 3 logs to first limbs. r maple heavily seamed. elderberry throughout - though dying out. heavy iron wood saplings in S end. rolling hills

Next Steps: monitor advanced regen next inventory cycle

Proposed Start Date: 10/01/2015

26 12192026-Cut	13.8	4134 - Aspen, Spruce/Fir	High Density Pole	28		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription cut all merchantable aspen and r maple. cut spruce/fir larger than 6" stump. leave w birch and pine. mark to leave 1/ac r maple 9" dbh or larger. MO is aspen/spruce/fir

Other variable aspen stand - part of stand was cut through in past. aspen 10 - 12" dbh with smaller poletimber 4 - 7" dbh. w spruce 12 - 16" - some mortality. fir is 8" dbh and larger - mainly dead (SBW?).

Next Steps: monitor for successful regen next inventory cycle

Proposed Start Date: 10/01/2015



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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
46	12192046-Cut	67.5	4319 - Mixed Upland Forest	High Density Pole	41	1-50	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription: cut merchantable aspen, maple, and j pine (if present). cut spruce/fir larger than 8" stump. leave w birch, y birch, w pine, r pine. MO w pine,
Specs: aspen, spruce/fir.

Other: aspen 7 - 12" dbh with fairly open understory. widely scattered larger fir 14 - 16" dbh. w spruce 14 - 16" with SBW damage/mortality. W pine
Comments: prevalent in isolated trees and scattered groves throughout, notably in N end. associated r maple very low quality. interspersed y birch
poletimber 8 - 10" dbh. small component of r pine sawtimber. short, fairly steep hills in N end.

Next: scarify for w pine regeneration.
Steps:

Proposed
Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 180.1**

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37 12192037-Cut	32.0	4319 - Mixed Upland Forest	High Density	66		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription very poor access - flooded swamp grass/alder, extreme water. If access is attempted:

Specs: cut all merchantable aspen and r maple. cut spruce/fir larger than 6" stump. leave w birch, y birch, pine, oak, cherry, cedar. MO aspen, maple, spruce/fir

good luck with dozer not becoming a permanent road base.

Other Comment: aspen 12 - 16" dbh, steadily distributed throughout. fir 6 - 10" dbh - windthrow occurring . scattered w spruce sawtimber 12 - 16" dbh. very scattered r pine. cedar occurring at edges along lowlands.

Next Steps:

Proposed Start Date: 10/01/2015

Limiting Factor 2E: Road needed

**Total Treatment
Acreage Proposed: 32.0**

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment 192

Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	2E
	Available	Not Available			
431	431		Aspen	431	
203	203		Cedar	203	
11	11		Lowland Conifers	11	
46	46		Lowland Deciduous	46	
78	78		Lowland Mixed Forest	78	
102	102		Lowland Spruce/Fir	102	
266	266		Northern Hardwood	266	
5	5		Paper Birch	5	
99	99		Upland Mixed Forest	67	32
4	4		Upland Spruce/Fir	4	
1,246	1,246		Total Forested Acres	1,214	32
	100%		Relative Percent		

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Available	2E: Road needed	32				
Comments:							
flooded marsh, tag alder, extreme water and super saturated muck soils.				good luck - hope for -50 below for 2 months			



Report 6 – 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments				
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Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42340 - Upland Spruce/Fir	Low Density Pole	4.2	54	1-50	mixed stand of w spruce and small r maple. aspen has mainly fallen out of stand. r maple/hazel understory nearly is the featured stand
2	4130 - Aspen	High Density Sapling	20.9	15		widely scattered large w pine. very scattered pockets of fir 3 - 6" dbh
3	4119 - Mixed Northern Hardwoods	High Density Sapling	33.3	15	51-80	very successful h maple, r maple, w birch, y birch and minor aspen sapling regen 6 - 10' tall. scattered windthrow throughout. small pockets of maple poletimber left from previous cut. in mid to SE of stand, land rises higher and has better quality h maple - these areas have higher residual with h maple prevalent. S1/2 is a higher site with scattered, shallow rock outcrop/boulders. isolated pockets of tag alder and cedar, notably along NW edge. Stand appears to have been group selected, leaving a minor residual in lower quality areas and higher residual in better quality timber.
5	4130 - Aspen	High Density Sapling	44.2	15		very widely scattered fir saplings/small poletimber
7	4140 - Other Upland Deciduous	Medium Density Pole	4.7	60	51-80	stand had aspen only cut out last harvest. aspen saplings 10 - 15' tall. w birch in fair shape, some top die back. W side of road has more w birch top die back and mortality. scattered cedar along edges
8	4130 - Aspen	High Density Pole	8.8	35		aspen 6 - 9" dbh. w birch, h maple saplings. scattered 12" dbh aspen. pockets of higher stocked maple saplings 10 - 20' tall
9	4110 - Sugar Maple Association	High Density Pole	16.4	63	111-140	fair to good h maple poletimber. scattered sawtimber throughout. eutypella present
10	6122 - Black Spruce	Medium Density Pole	30.5	60		sphagnum/lab tea. widely scattered higher ground inclusions that have been windthrown in past - currently A3M3. very scattered cedar 12 - 14" dbh. along edges of stand are scattered pockets of better quality tamarack 10 - 12" dbh. extremely wet.
11	4112 - Maple, Beech, Cherry Association	High Density Log	77.8	73	81-110	good amounts of h maple saplings 5 - 20' tall. widely scattered upland cedar. fir saplings/poletimber at edges or in more marginal site within the stand. thick hazel in areas. NW edge has windthrow. H maple sawtimber fair quality 2 - 3 logs to first limbs. r maple heavily seamed. elderberry throughout - though dying out. heavy iron wood saplings in S end. rolling hills
13	4139 - Aspen, Mixed Deciduous	High Density Sapling	21.2	15		good species mix. small amount of tamarack saplings adjacent to lowlands
15	4130 - Aspen	High Density Pole	8.8	39		aspen 6 - 9" dbh. good r maple/h maple sapling regen. scattered larger diameter poor quality r maple left from previous cut.
16	4134 - Aspen, Spruce/Fir	High Density Pole	33.0	37		aspen 6 - 8" dbh. fairly dense fir understory throughout. scattered inclusions of low areas with water



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	4130 - Aspen	High Density Pole	11.4	30		aspen 8 - 11" dbh. good h maple sapling understory with fir widely scattered. associated h maple/r maple 12" dbh. small vernal /seasonal pond inclusion in NE corner - ringed by fir and maple.
19	6122 - Black Spruce	Medium Density Pole	25.3	60		b spruce 4 - 7" dbh and cedar 12 - 16" dbh. more cedar in S end and along edges. sphagnum - true b spruce swamp. small areas of windthrow with r maple regen. areas/runs of dense alder
20	6124 - Lowland Spruce- Fir	High Density Pole	11.0	32		multiple species in stand. slight occurrence of aspen 2 - 3" dbh with 8 - 9" dbh. E of old road and a small area W of road is higher ground - remainder of stand is muck swamp. scattered cedar and balm at edges
21	4130 - Aspen	High Density Pole	15.1	35		high amount of old windthrow. aspen 6 - 10" dbh. good stocking of fir understory and r maple saplings. fir showing some age - seams prevalent. small water pond/vernal areas along middle to E edge
23	4112 - Maple, Beech, Cherry Association	High Density Log	94.6	73	81-110	good amounts of h maple saplings 5 - 20' tall. widely scattered upland cedar. fir saplings/poletimber at edges or in more marginal site within the stand. thick hazel in areas. H maple sawtimber fair quality 2 - 3 logs to first limbs. r maple heavily seamed. elderberry throughout - though dying out. heavy iron wood saplings in S end. NE end has small A6 6 - 7" dbh M4 inclusion. rolling hills
24	4139 - Aspen, Mixed Deciduous	High Density Sapling	24.0	14		along edge of Margeson Creek swamp - old beaver cuttings cut off most of aspen regen. large w pine in S end and small pocket of h maple/y birch 12 - 18" dbh - low quality. tag alder mix at swamp edges especially at E side
25	4110 - Sugar Maple Association	High Density Pole	21.0	71	51-80	very good h maple regen - fair amount of deer browse. sawtimber fair to poor quality, defects prevalent. scattered large w pine 24 - 28" dbh
26	4134 - Aspen, Spruce/Fir	High Density Pole	13.8	28		variable aspen stand - part of stand was cut through in past. aspen 10 - 12" dbh with smaller poletimber 4 - 7" dbh. w spruce 12 - 16" - some mortality. fir is 8" dbh and larger - mainly dead (SBW?).
27	4130 - Aspen	High Density Sapling	27.4	18		nearly pure aspen stand 15 - 20' tall
28	6120 - Lowland Cedar	Medium Density Log	25.7	121		C6F3. cedar 10 - 16" dbh with associated fir poletimber 4 - 6" dbh. well stocked fir 1 - 3". scattered rock knobs with r maple, b spruce saplings and w pine 20 - 22" dbh. pockets of tag alder.
29	4130 - Aspen	High Density Sapling	130.2	21		aspen 1 - 4" dbh with very scattered 5 - 6" trees. small tag alder inclusion in S end. SE end has scattered large rock/bedrock knobs



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	75.3	124		extremely wet - standing water, very deep muck soils. areas with moderately stocked cedar graduating to more b ash sapling/small poletimber with fir. areas with thick tag alder.
31	4130 - Aspen	High Density Sapling	27.8	15		aspen 25 - 30' tall
32	4110 - Sugar Maple Association	High Density Log	23.5	90	81-110	h maple 9 - 20" dbh, good to fair tree form. very widely scattered large w pine along SE end. fantastic h maple regen, very highly stocked.
34	6122 - Black Spruce	Medium Density Pole	46.3	60		interior of stand has well stocked b spruce poletimber. E and S ends sparsely timbered with more tag alder. W edge also graduates to less stocking and more alder. much of stand is heavily windthrown from 2005 - very heavy alder growth with b spruce 4 - 8" dbh.
36	6120 - Lowland Cedar	Medium Density Pole	177.3	90		heavy tag alder. S end is wetter and has sparser trees with higher percent of cedar 8 - 10" dbh. mid to N end has small isolated pockets of better tamarack 8 - 12" dbh, mixed with cedar. inclusions of b spruce throughout
37	4319 - Mixed Upland Forest	High Density Log	32.0	66		aspen 12 - 16" dbh, steadily distributed throughout. fir 6 - 10" dbh - windthrow occurring. scattered w spruce sawtimber 12 - 16" dbh. very scattered r pine. cedar occurring at edges along lowlands.
39	4134 - Aspen, Spruce/Fir	High Density Pole	20.2	33		aspen 6 - 8" dbh with thick fir understory. upland b spruce adjacent to swamp edge. In mid to S end of the stand, higher stocking of r maple saplings
40	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	3.0	36		b ash/cedar with small higher ground inclusion. windthrow area regenerating to A3M3. overall very wet stand - water
41	4130 - Aspen	High Density Sapling	13.1	7		virtually a pure aspen stand
42	4130 - Aspen	High Density Sapling	11.0	21		aspen 1 - 3" dbh. small b spruce inclusion in middle of stand. wet with standing water though site is semi - high ground. small pockets of fir. W edge, heavy to tag alder
44	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	45.9	32		b ash saplings/small poletimber with small inclusions of b spruce/tamarack/fir. extremely wet - standing water. center of stand moves to mix of semi open - tag alder/willow and sparse trees with clumps of cedar/b spruce/tamarack
46	4319 - Mixed Upland Forest	High Density Pole	67.5	41	1-50	aspen 7 - 12" dbh with fairly open understory. widely scattered larger fir 14 - 16" dbh. w spruce 14 - 16" with SBW damage/mortality. W pine prevalent in isolated trees and scattered groves throughout, notably in N end. associated r maple very low quality. interspersed y birch poletimber 8 - 10" dbh. small component of r pine sawtimber. short, fairly steep hills in N end.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	6223 - Inundated Shrub Swamp	46.3	No	Unspecified	Margeson Creek flowage - marsh grass/tag alder/pockets of poor b ash 3 - 4" dbh. historically old beaver flowages. multiple drainages
6	3303 - Mixed Low Density Trees	12.7	No	Unspecified	tag alder with b ash saplings and scattered cedar - alive and dead, very wet - standing water
12	3303 - Mixed Low Density Trees	3.1	No	Unspecified	Margeson Creek flowage, heavy tag alder. scattered single and small pockets of b spruce and b ash
14	6224 - Treed Bog	15.5	No	Low	leatherleaf bog/ponded water 2' deep. open bog area ringed by b spruce and tamarack 4 - 10" dbh. lab tea.
18	330 - Low-Density Trees	31.7	No	Unspecified	extremely wet - standing water. pockets of higher stocked b ash/balm in NW "finger". overall stand is alder swamp with sparse b ash throughout and small inclusions of higher stocking.
22	6233 - Wet Meadow	24.3	Unspecified	Unspecified	Margeson Creek flowage, open flooded marsh grass. scattered alder, cedar, spruce, fir at edges. dead snags, beaver flowages
33	622 - Lowland Shrub	33.1	No	Unspecified	heavy tag alder with scattered open grown cedar. very wet - creek. small groves of cedar throughout with widely scattered b ash 3 - 4" dbh
35	330 - Low-Density Trees	14.7	No	Unspecified	Rock Dam Fire area from 2009 - scattered clumps of A3. cherry saplings/hazel throughout. upland brush with sparse aspen/r maple saplings with clumps of fir 3 - 4" dbh. burned snags
38	6233 - Wet Meadow	101.1	No	Unspecified	open bog/marsh. leatherleaf and dead snags, creek/floodings throughout. N 3/4 burned in Rock Dam Fire 2009
43	6224 - Treed Bog	26.7	No	Unspecified	sparse trees - b spruce small diameter poletimber. extremely heavy tag alder, very wet
45	6224 - Treed Bog	9.1	Unspecified	Unspecified	muskeg- swamp grass/hummocks with stunted b spruce and tamarack 1 - 4" dbh. very wet, leatherleaf