

Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 229 Entry Year: 2013
Compartment Acreage: 1, 283 County: Marquette

Revision Date: 08/18/2011.

Stand Examiner: Dean Wilson

Legal Description: T45N R28W Sections 3, 4, and 5.

RMU (if applicable): Voelker Plains Management Area

Management Goals: Mixed use.

Soil and Topography: Landform consists of primarily excessively drained sands in an outwash plain. Topography is mostly level with some areas of light to moderate slopes.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is surrounded by State land and smaller private ownerships. Land use is primarily for forest production and passive recreation.

Unique, Natural Features: The Sagola swamp, a large low land conifer environment, is contained in this tract. The Sagola Lakes and related drainages occur in the southwest part of the property. The eastern half of the compartment is jack pine plains habitat.

Archeological, Historical, and Cultural Features: Unknown.

Special Management Designations or Considerations: Ensure that jack pine habitats are maintained. The headwaters of the Flat Rock Creek originate in the western half of this compartment.

Watershed and Fisheries Considerations: Protect the drains that form the Flat Rock Creek to ensure maintained water quality.

Wildlife Habitat Considerations: Dry soils comprised of "Rubicon" and "Rubicon/Keweenaw Associate" sands influence a significant portion of the cover-types and wildlife communities in this area. Historic fire disturbance maintained the dry pine, soft mast producing plants and barrens communities found here with a significant portion of the area maintained as large opening complexes. These openings and patchy cover-types historically provided habitat for sharptail grouse, and currently are used by grassland/barrens species such as northern harrier, merlin, upland sandpiper, brown thrasher, thirteen-lined ground squirrel, and badger. Significant soft mast in the form of choke cherry, blueberry, and serviceberry offer the public berry picking opportunities and attract many wildlife species in summer and fall especially black bear. Hunting is popular in this area for deer, bear, and woodcock. This compartment contains maintained wildlife openings.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium, peat and muck and coarse-textured glacial till. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. There is not a current economic use for the Granite/Gneiss. Gravel pits are located north of the compartment (possibly old ones), and potential appears to be good along the west edge. The abandoned

Republic iron mine is located seven miles to the northwest. The State land to the northwest of this compartment had been leased for metallic exploration. There is no economic oil and gas production in the

Vehicle Access: Good throughout the eastern part of this compartment and is limited due to poor drainage in the western half.

Survey Needs: None.

Recreational Facilities and Opportunities: Passive use of this tract is heavy.

Fire Protection: Fire risk is moderate.

Additional Compartment Information: It is suggested that at rotation the planted red pine areas be converted to jack pine.

- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
 - ◆ **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand boundaries, cover types, and numbers**
 - ◆ **Proposed treatments**
 - ◆ **Details on the road access system**

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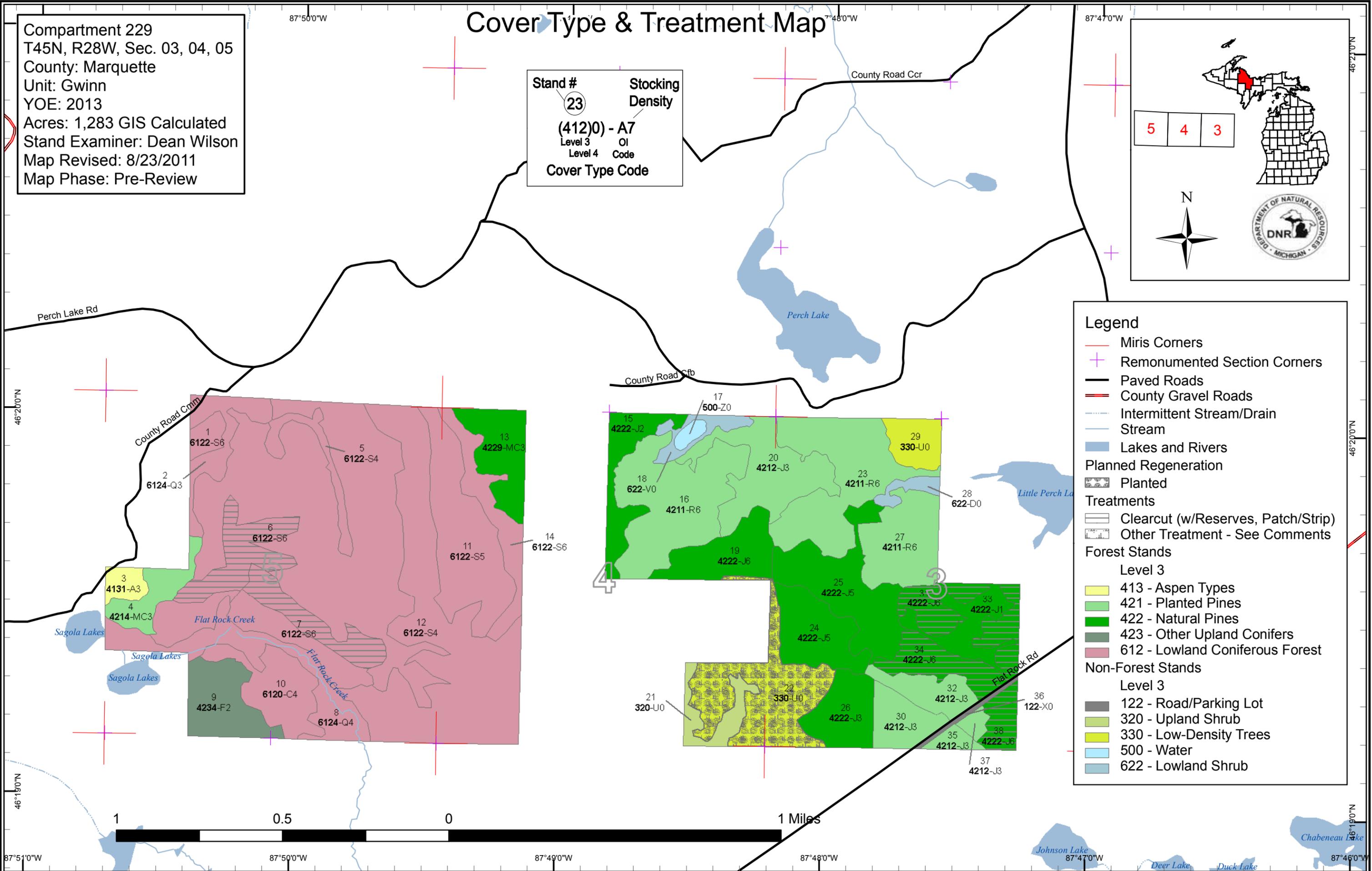
Cover Type & Treatment Map

Compartment 229
 T45N, R28W, Sec. 03, 04, 05
 County: Marquette
 Unit: Gwinn
 YOE: 2013
 Acres: 1,283 GIS Calculated
 Stand Examiner: Dean Wilson
 Map Revised: 8/23/2011
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- County Gravel Roads
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Planned Regeneration
 - Planted
 - Clearcut (w/Reserves, Patch/Strip)
 - Other Treatment - See Comments
- Forest Stands
 - Level 3
 - 413 - Aspen Types
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 612 - Lowland Coniferous Forest
 - Non-Forest Stands
 - Level 3
 - 122 - Road/Parking Lot
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub



Stand Boundary Map

Compartment 229
 T45N, R28W, Sec. 03, 04, 05
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Legend

- Miris Corners
- + Remonumented Section Corners
- Paved Roads
- County Gravel Roads
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands

Level 3

- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 122 - Road/Parking Lot
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub

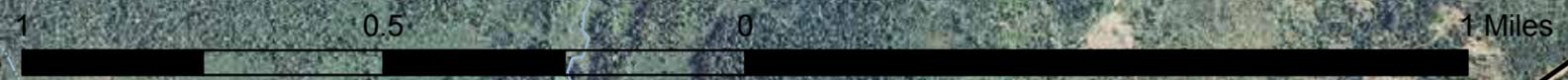
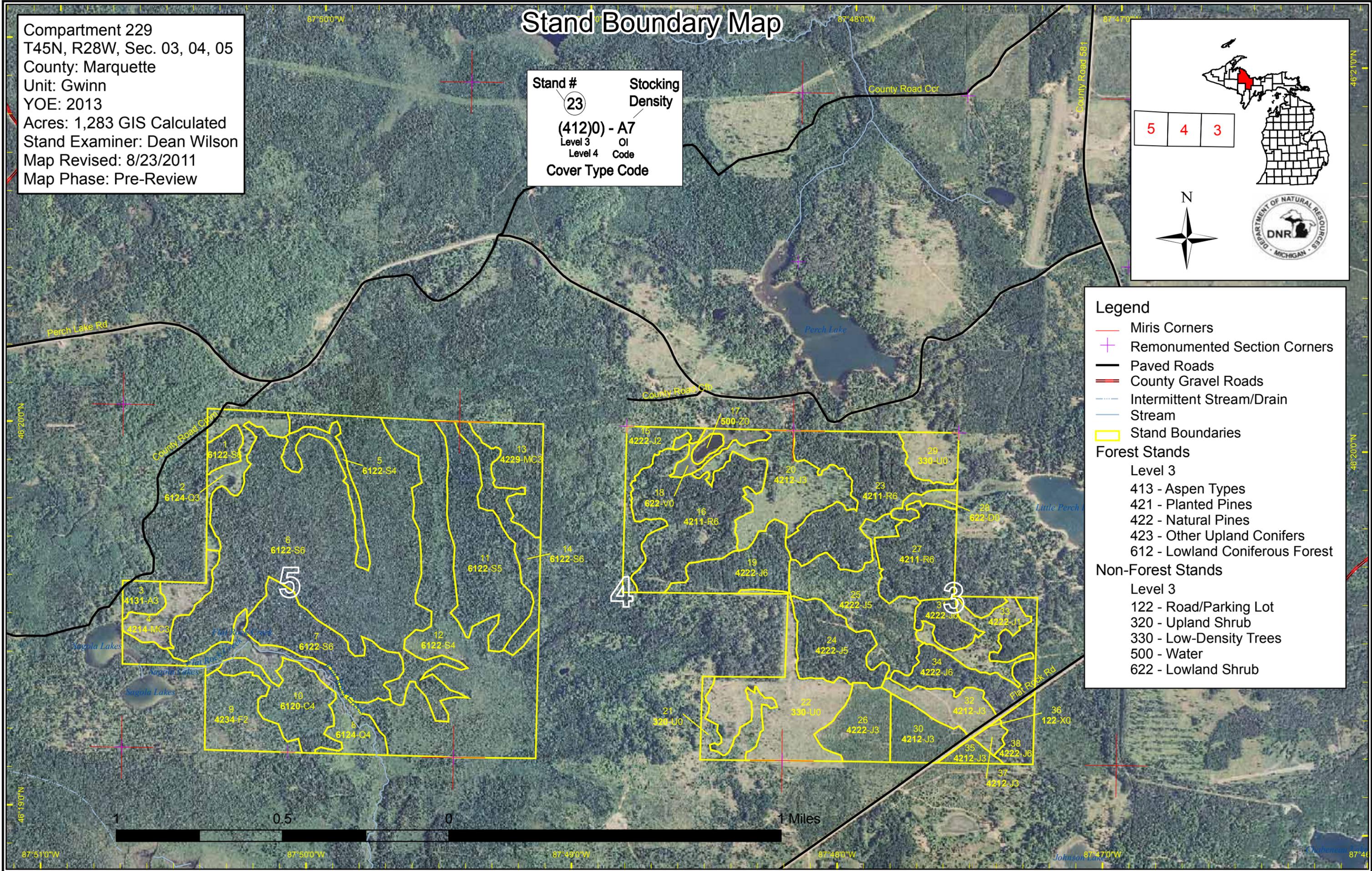


Table 1 – Total Acres by Cover Type and Age Class



	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 +		Uneren Age
Aspen	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Bog	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	31	0	0	31
Jack Pine	0	65	70	69	59	0	0	60	0	0	0	0	0	0	0	322
Low-Density Trees	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71
Lowland Conifers	0	0	20	0	0	39	0	0	0	0	0	0	0	0	0	59
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	450	67	0	0	0	0	0	518
Natural Mixed Pines	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27
Planted Mixed Pines	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Red Pine	0	0	0	0	0	0	168	0	0	0	0	0	0	0	0	168
Treed Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Shrub	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Upland Spruce/Fir	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	30
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	105	82	120	96	66	39	168	60	450	67	0	0	31	0	0	1283



Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2013

Compartment 229
Total Compartment Acres: 1283

Acres by Treatment Type

Commercial Harvest - 109	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 56
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
Jack Pine	60	0	0	0	0	0	0	60
Lowland Spruce/Fir	50	0	0	0	0	0	0	50
Total	109	0	0	0	0	0	0	109



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	32229006-Cut	27.9	42320 - Upland Spruce	High Density Pole	72	Harvest	Patch or Strip Clearcut	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal
<u>Prescription</u> Clearcut three 200 foot wide strips in southwest part of stand. Cedar if encountered will be retained.									
<u>Specs:</u>									
<u>Other</u> This harvest will be in conjunction with the treatment of stand 7. A winter harvest is mandated.									
<u>Comments:</u>									
<u>Next</u> Check for regeneration per work instructions.									
<u>Steps:</u>									
7	32229007-Cut	21.6	6122 - Black Spruce	High Density Pole	84	Harvest	Patch or Strip Clearcut	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription</u> Design a network of 200 foot wide interconnecting strips to be clearcut harvesting one third of this stand.									
<u>Specs:</u>									
<u>Other</u> Avoid excessively wet areas. Cedar if encountered will be retained.									
<u>Comments:</u>									
<u>Next</u> Check for regeneration per work instructions.									
<u>Steps:</u>									
31	32229031-Cut	15.6	42220 - Natural Jack Pine	High Density Pole	60	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut followed by disk trenching and direct seeding of jack pine.									
<u>Specs:</u>									
<u>Other</u> Red pine if encountered will be retained.									
<u>Comments:</u>									
<u>Next</u> Disk trench and direct seed jack pine. Check regeneration per cultivation guidelines.									
<u>Steps:</u>									
34	32229034-Cut	33.3	42220 - Natural Jack Pine	High Density Pole	60	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut followed by disk trenching and direct seeding to jack pine.									
<u>Specs:</u>									
<u>Other</u> Red pine if encountered will be retained.									
<u>Comments:</u>									
<u>Next</u> Disk trench and direct seed jack pine. Check regeneration per cultivation guidelines.									
<u>Steps:</u>									
38	32229038-Cut	10.9	42220 - Natural Jack Pine	High Density Pole	60	Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut jack and red pine followed by disk trenching and direct seeding of jack pine. For retention mark 5 to 10 red pine per acre to leave.									
<u>Specs:</u>									
<u>Other</u> Trees other than red and jack pine if encountered will be retained.									
<u>Comments:</u>									
<u>Next</u> Disk trench and direct seed to jack pine. Check regeneration per cultivation guidelines.									
<u>Steps:</u>									

**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
22	NF_32229022-regeneration check	56.5	Non-Forested		0	Other	Unspecified	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Regeneration check.

Specs:

Other Trenched and seeded in 2009.

Comments:

Next Reforest if failed.

Steps:

**Total Treatment
Acreage Proposed: 165.8**

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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
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 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**

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 229
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6122 - Black Spruce	High Density Pole	6.5	73	51-80	
2	6124 - Lowland Spruce- Fir	High Density Sapling	19.6	10		Harvested in 2001: TS# 120-99-01. Stand contains 2 small upland inclusions supporting mostly red pine.
3	4131 - Aspen, Oak	High Density Sapling	7.6	34	1-50	Cut to feed deer in 1977.
4	42140 - Planted Mixed Pine	High Density Sapling	17.0	4		Harvested in 2007: TS#314-04-01. Trenched and seeded in 2007. Stand contains lowland black spruce inclusions.
5	6122 - Black Spruce	Low Density Pole	11.9	79	1-50	Marginally productive-very wet.
6	6122 - Black Spruce	High Density Pole	236.9	72	51-80	
7	6122 - Black Spruce	High Density Pole	42.9	84	51-80	
8	6124 - Lowland Spruce- Fir	Low Density Pole	39.0	45	1-50	SCA = Riparian corridor along the Sagola Lakes outlet.
9	42340 - Upland Spruce/Fir	Medium Density	29.9	19	1-50	Harvested in 1992: TS# 91-92. Stand contains lowland inclusions.
10	6120 - Lowland Cedar	Low Density Pole	30.8	112	1-50	
11	6122 - Black Spruce	Medium Density Pole	60.2	75	1-50	
12	6122 - Black Spruce	Low Density Pole	134.9	79	1-50	Bog inclusions-marginally productive-very wet.
13	42290 - Natural Mixed Pine	High Density Sapling	27.4	26		Harvested in 1985 then broadcast seeded.
14	6122 - Black Spruce	High Density Pole	24.6	89	51-80	
15	42220 - Natural Jack Pine	Medium Density	22.4	17		Harvested in 1994: TS#21-93. Seeded in 1994.
16	42110 - Planted Red Pine	High Density Pole	67.8	51	81-110	Machine plante to red pine around 1960. Stanad is mixed with naturally regenerated jack pine and cantains minor aspen inclusions.
19	42220 - Natural Jack Pine	High Density Pole	27.9	39	51-80	Harvested around 1970. Scarified and broadcast seeded in 1971.

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 229
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	42120 - Planted Jack Pine	High Density Sapling	43.7	6	1-50	Harvested in 2004: TS#113-03-01. Trenched and seeded in 2005. Red pine were planted in the 1960s.
23	42110 - Planted Red Pine	High Density Pole	63.1	51	111-140	Machine planted in 1960. Mixed with naturally regenerated jack pine.
24	42220 - Natural Jack Pine	Medium Density Pole	30.9	39	51-80	Harvested around 1970. Scarified and seeded in 1972.
25	42220 - Natural Jack Pine	Medium Density Pole	48.4	26	1-50	Disked and planted in 1985 then re-planted in 1986.
26	42220 - Natural Jack Pine	High Density Sapling	24.4	14		Harvested in 1997: TS# 10-93. Trenched and direct seeded in 1997.
27	42110 - Planted Red Pine	High Density Pole	36.8	51	111-140	Machine planted in 1960. Mixed with naturally regenerated jack pine.
30	42120 - Planted Jack Pine	High Density Sapling	18.4	16		Harvested in 1993: TS#10-93. Planted in 1995.
31	42220 - Natural Jack Pine	High Density Pole	15.6	60	81-110	Final harvest followed by trenching and direct seeding.
32	42120 - Planted Jack Pine	High Density Sapling	17.1	6		Harvested in 2003: TS#111-03-01. Trenched and seeded in 2005.
33	42220 - Natural Jack Pine	Low Density Sapling	20.1	28	1-50	Roller chopped in 1983. Semi-open stand.
34	42220 - Natural Jack Pine	High Density Pole	33.3	60	81-110	Final Harvest followed by trenching and direct seeding.
35	42120 - Planted Jack Pine	High Density Sapling	5.0	16		Harvested in 1995: TS# 10-93. Hand planted in 1995.
37	42120 - Planted Jack Pine	High Density Sapling	3.7	6		Harvested in 2003. Trenched and seeded in 2005.
38	42220 - Natural Jack Pine	High Density Pole	10.9	60	111-140	Final harvest followed by trenching and direct seeding. Mark 5 to 10 red pine per acre for retention.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
17	50 - Water	3.2	No	Unspecified	Small bog lake.
18	6225 - Bog	8.6	No	Unspecified	
21	3205 - Mixed Upland Shrub	13.3	No	Unspecified	Roller chopped in 1979. Stand is part of what used to be a larger sharptail grouse management area.
22	3302 - Low Density Conifer Trees	56.5	Planted	Jack Pine	Harvested in 2004: TS#112-03-01. Seeding and hand planting efforts seem to have failed.
28	6224 - Treed Bog	5.6	No	Unspecified	Appears to be drying up and converting to a forested type.
29	3303 - Mixed Low Density Trees	14.6	No	Unspecified	Roller chopped in 1983.
36	122 - Road/Parking Lot	3.0	No	Unspecified	Flat Rock Road and associated right of way.

**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
8	Unique Site - SCA	32229008	39.0	SCA = Bottom lands and associated buffers along the creek that is the Sagola Lakes outlet.
12	Unique Site - SCA	32229012	134.9	Wetland protection of a drain that feeds Sagola Lakes and eventually the Flatrock River.



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
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