

Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 73003 Entry Year 2020 Acreage: 4,017

County Clare

Management Area: Upper Muskegon

Revision Date: 2018-05-14

Stand Examiner: Tim Gallagher

Legal Description:

T20N - R03W Sections 6, 18, 19 & 30. T20N - R04W Sections 1 - 4, 9, 11, 12, 13, 14, 22, 24, 25, 26, 27, 33 & 34.

Identified Planning Goals:

Follow guidelines set forth in the Regional State Forest Management Plan for the Upper Muskegon Management Area. Monitor and address forest health concerns and issues, balance timber age classes, manage for forest sustainability, provide wildlife habitat, provide forest based recreation. Protect archeological concerns, protect threaten and endangered species.

Soil and topography:

The soils under the compartment are heavily influenced by glacial activity. They range from outwash sands to moraines. Many of the soils have a component of clay, gravel, and/or stones. In addition, there are several larger ice contact depressions. The compartment has around 20% very poorly to somewhat poorly drained soils, which are mainly Lupton, Markey, and Loxley muck. It has around 41% moderately well to well drained soils, which are mainly Montcalm and Menominee. It also has around 39% somewhat excessively to excessively drained soils, which are mainly Graycalm, Grayling and Rubicon. The terrain is variable ranging from flat to gently rolling.

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

The state land in this compartment is spread out over 19 sections, the state and private lands are intermixed resulting in miles of private property lines. The state land occurs in large contiguous blocks and isolated 40 - 160 acre parcels. Private holdings are mostly comprised of large (40 acres or greater) forested single holdings with absentee landowners. Limited forest management activity occurs on the private holdings. There are numerous permanent residences scattered through out the entire compartment as well. There are several small subdivisions located within the compartment, some of which are directly adjacent to State Forest Land. The location of these subdivisions concentrates use on the land.

Unique Natural Features:

MNFI records indicate the high potential and/or existence of the following species within the compartment boundaries; Osprey, Bald Eagle, Box Turtle, Common Loons, Red-Shoulder Hawk and Wood Turtle. There is a normal potential for Massasauga and Blanding's Turtle. Slight potential for secretive locust in bogs, especially if surrounded by jack pine. Potential for hill's thistle and alleghany plum in grassy openings within oak and pine stands. Slight potential for calypso and ram's head lady's slipper in conifer swamps.

Archeological, Historical, and Cultural Features:

There are six HAL documented sites within the compartment. There are several old homestead sites scattered throughout the compartment as well. These sites consist of foundations, trash piles, mounds and apple trees.

Special Management Designations or Considerations:

Townline Creek Flooding is within the compartment. Due to the current condition of the dam WLD is evaluating what management actions to recommend for the dam. Given the current condition of the dam along with limited legal access relative to other impoundments in the region, it will likely be recommended to have the dam removed.

Watershed and Fisheries Considerations:

The compartment is part of the Muskegon River Watershed. There are several lakes that are close to the compartment boundary; Long Lake, Bluegill Lake, Halfmoon Lake and Arnold Lake. In addition, Town Line Creek and the South Branch of Town Line Creek flow through parts of the compartment, along with several unnamed drains. None of the water ways are a cold-water fishery.

Wildlife Habitat Considerations:

Upland systems are dominant in this compartment, making it suitable for a number of early forest successional wildlife species. The majority of stands are aspen with lowland cover types present. Species such as ruffed grouse, white-tailed deer and American woodcock are quite common. Townline Creek Flooding is in this compartment. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the area around the flooding as a travel corridor as well as year-

round habitat. Other game species likely to be present in this compartment include raccoon, wild turkey and snowshoe hare. Many bird species stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include pileated woodpecker, wood duck, American bittern, mallard, and red-headed woodpecker. The compartment is easily accessible to hunters via Pierce Road on the north and Haskel Lake Road and Arnold Lake Road to the south.

Mineral Resource and Development Concerns and/or Restrictions

Sand/gravel pits are located in the area, and there is sand & gravel potential within the compartment. The North Hamilton Field is located in the southern portion of the compartment. The gas storage operations have been abandoned, but the field is still producing oil from the Detroit River Group. Hydrocarbon production is undergoing secondary recovery operations currently. Much of the state-owned mineral rights in the area are currently leased and some have been nominated for the May 2018 oil & gas lease auction. There is no known metallic mineral potential in this part of the state.

Vehicle Access:

Access to most of the compartment is good via the county road system and state forest two track roads that are in place. There are access limitations to the dam and control structure for the Townline Creek Flooding located in Section 3, T20N - R04W.

Survey Needs:

None needed at this time. Several DNR surveys have been completed in this area over the past two decades.

Recreational Facilities and Opportunities:

There are no designated recreation facilities within the forest area, but Long Lake Boating Access Site occurs in section 27 surrounded by private property. Dispersed hunting, trapping and fishing are popular pursuits with access from multiple locations due to the fragmentation of land and good road access or private property.

Fire Protection:

A potential fire control problem exists due to the rural /urban interface within this compartment.

Additional Compartment Information:

There are numerous old railroad grades criss-crossing the area, remnants from the white pine logging era.

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

Compartment 3

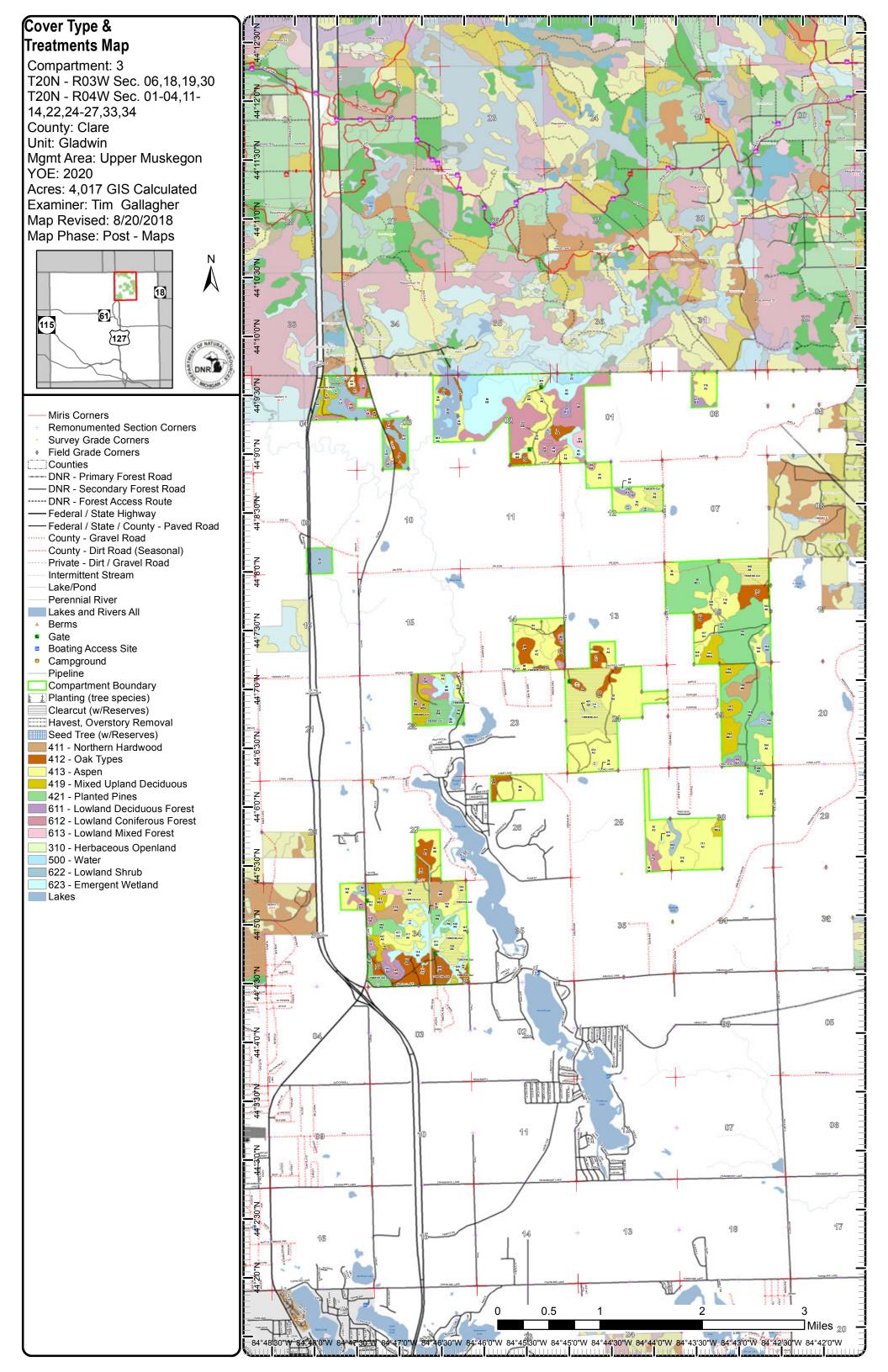
Year of Entry 2020

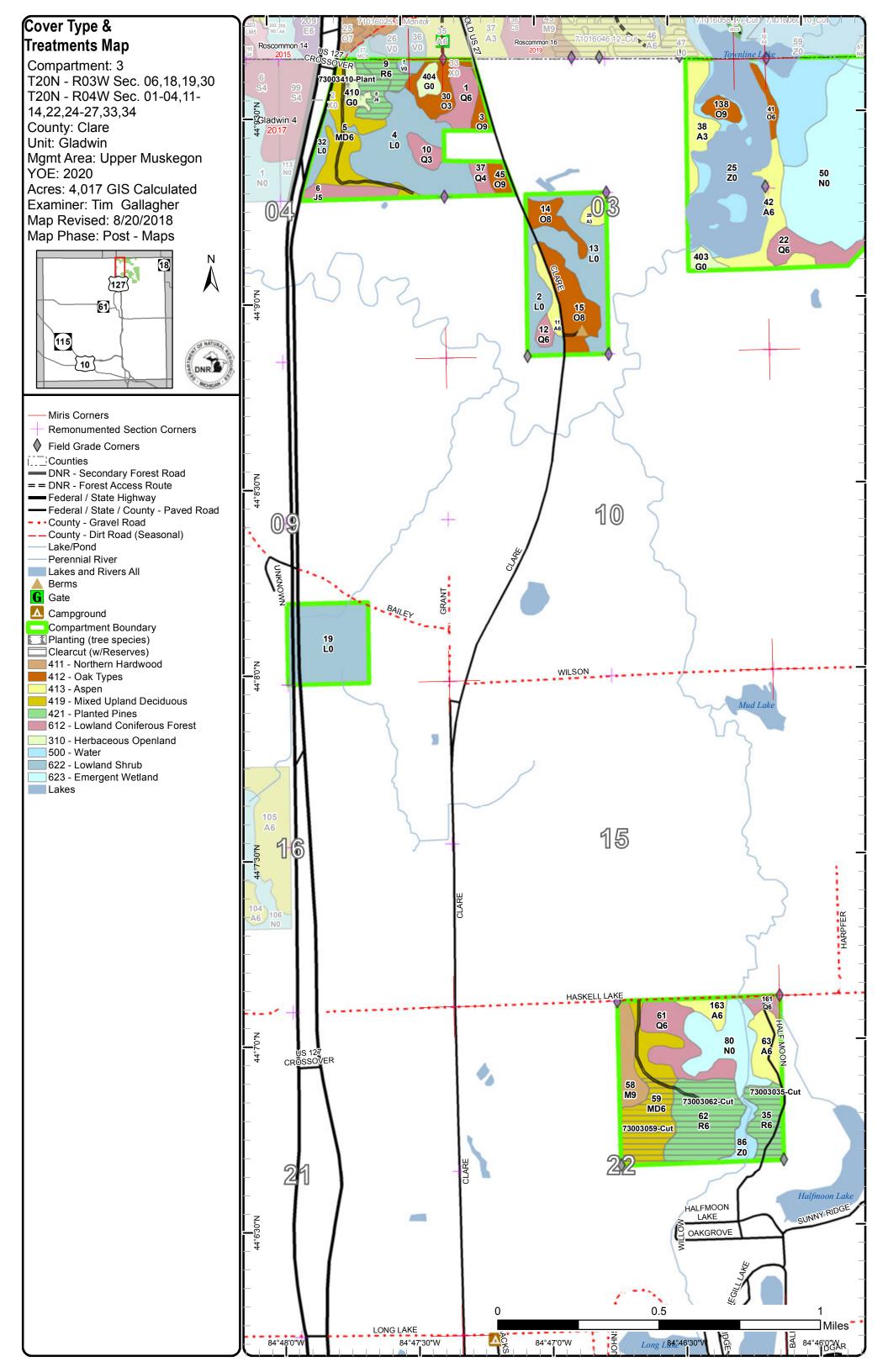
Gladwin Mgt. Unit Tim Gallagher : Examiner

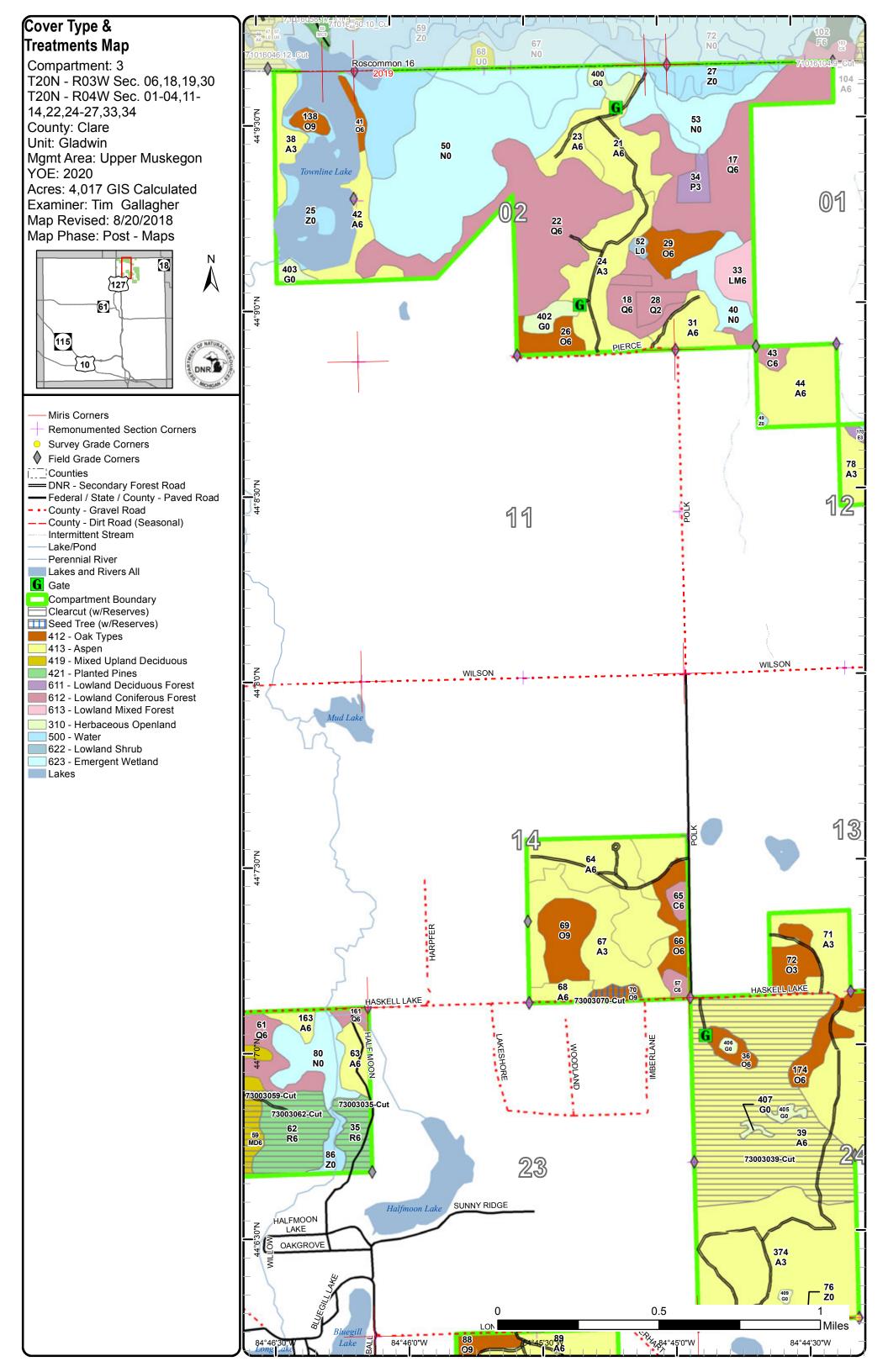


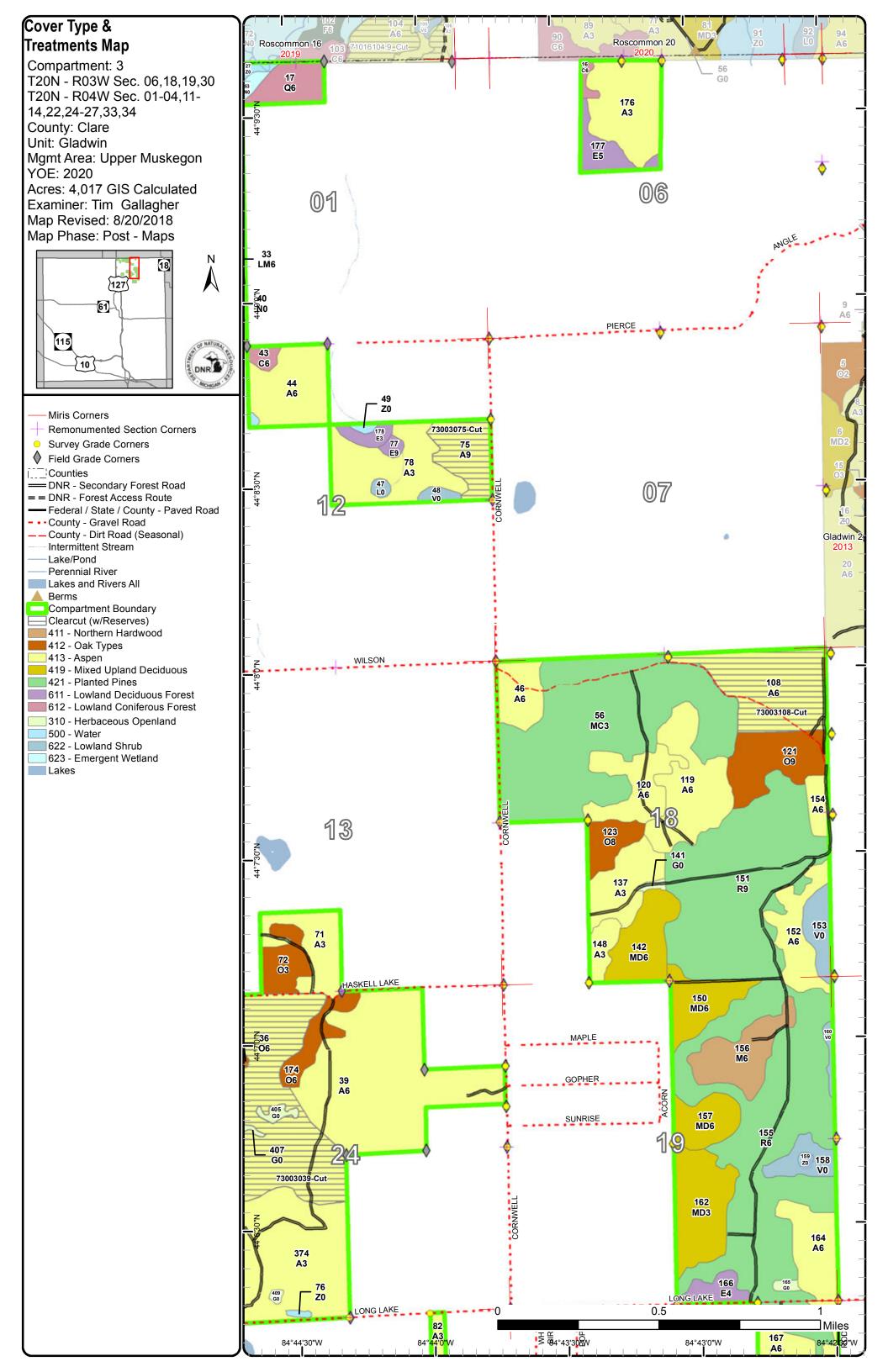
Age Class

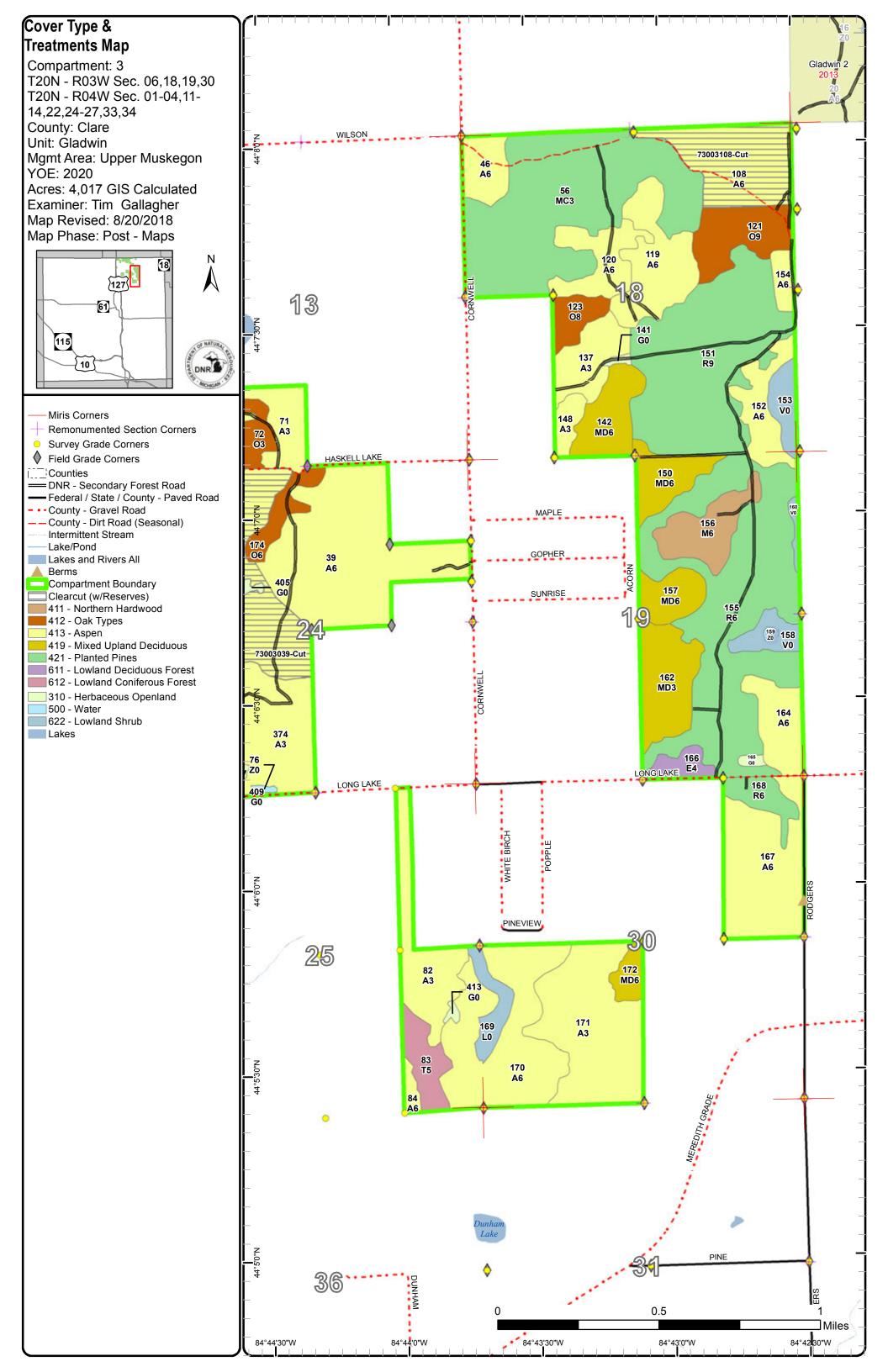
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Aspen	0	245	189	404	172	533	142	0	0	9	0	0	0	0	0	0	0	0	1694
Bog	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Cedar	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	7	23
Herbaceous Openland	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Jack Pine	0	0	0	0	0	0	16	5	0	0	0	0	0	0	0	0	0	0	21
Lowland Aspen/Balsam Poplar	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Conifers	0	0	0	5	18	0	0	0	0	14	0	3	183	0	0	23	0	22	268
Lowland Deciduous	0	0	0	5	0	0	10	0	13	16	0	0	0	0	0	0	0	0	43
Lowland Mixed Forest	0	0	0	8	13	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Lowland Shrub	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155
Marsh	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	308
Mixed Upland Deciduous	0	0	37	0	45	23	13	9	0	3	0	0	0	0	0	0	0	76	205
Northern Hardwood	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	71	99
Oak	0	19	46	0	14	31	19	10	13	8	152	44	0	0	0	0	0	0	355
Planted Mixed Pines	0	0	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151
Red Pine	0	0	0	0	0	0	227	60	131	0	0	0	0	0	0	0	0	0	418
Tamarack	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	18
Water	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133
Total	692	264	423	422	269	615	427	84	157	50	170	64	183	0	0	23	0	176	4014

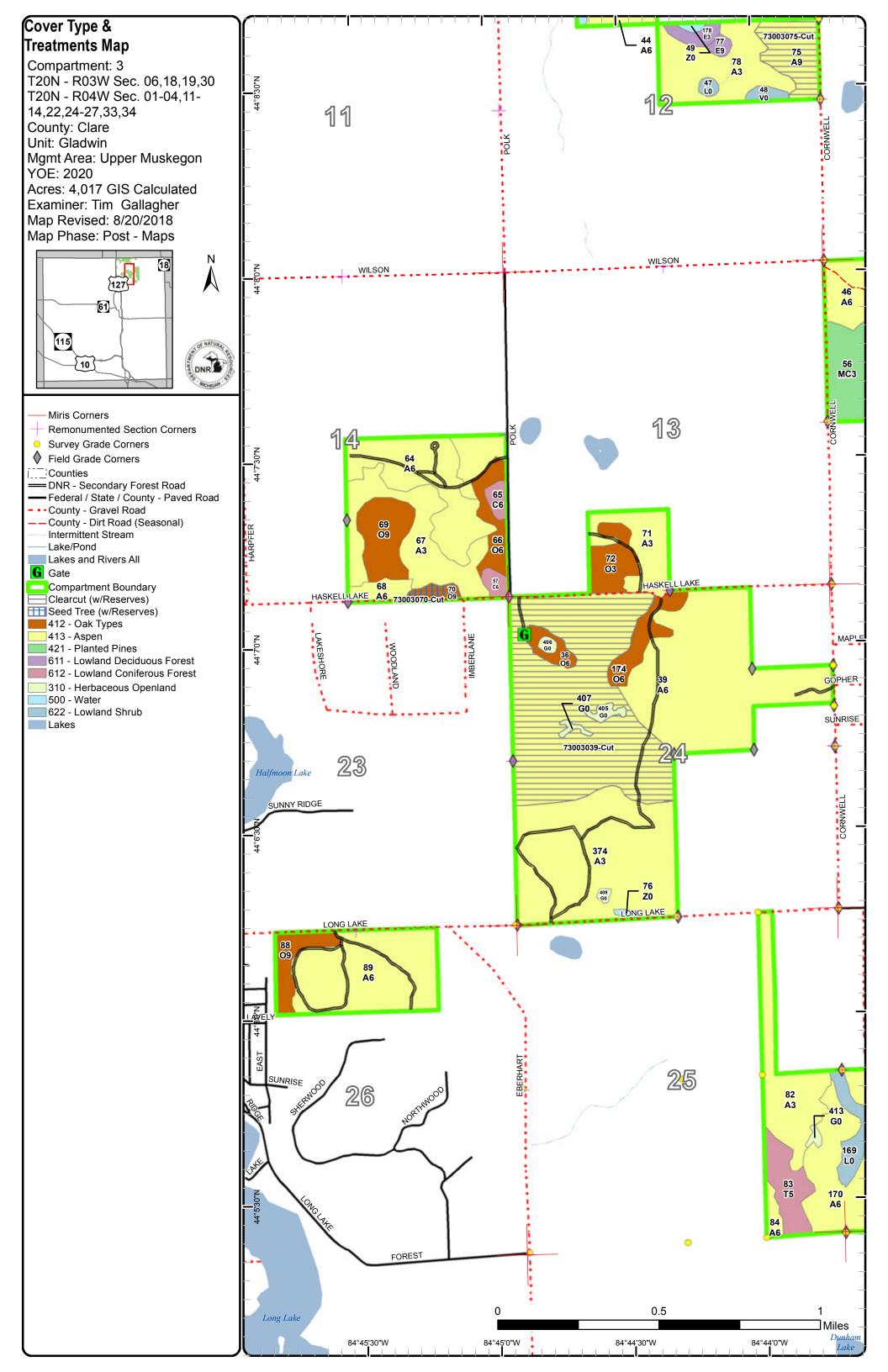


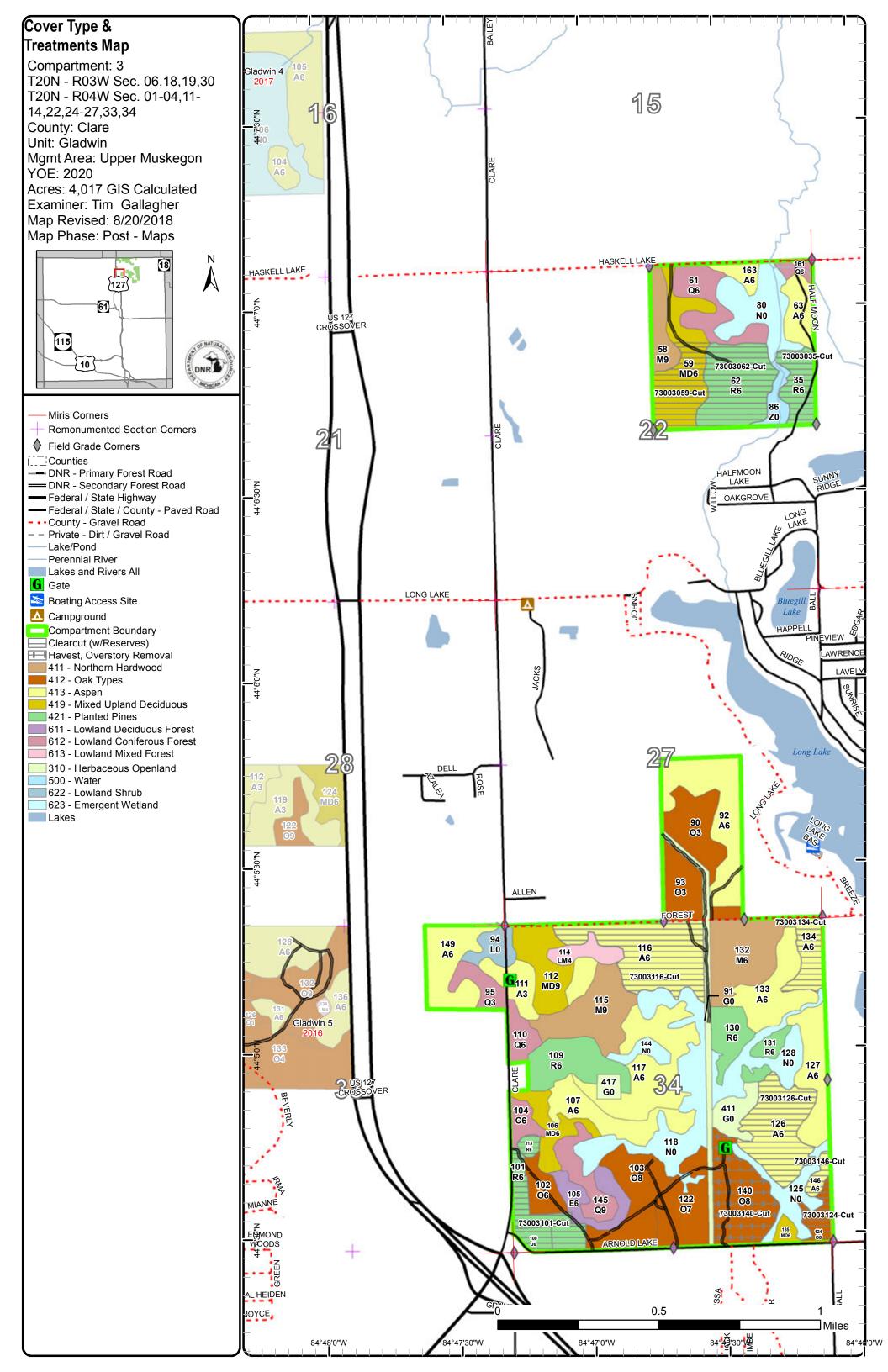


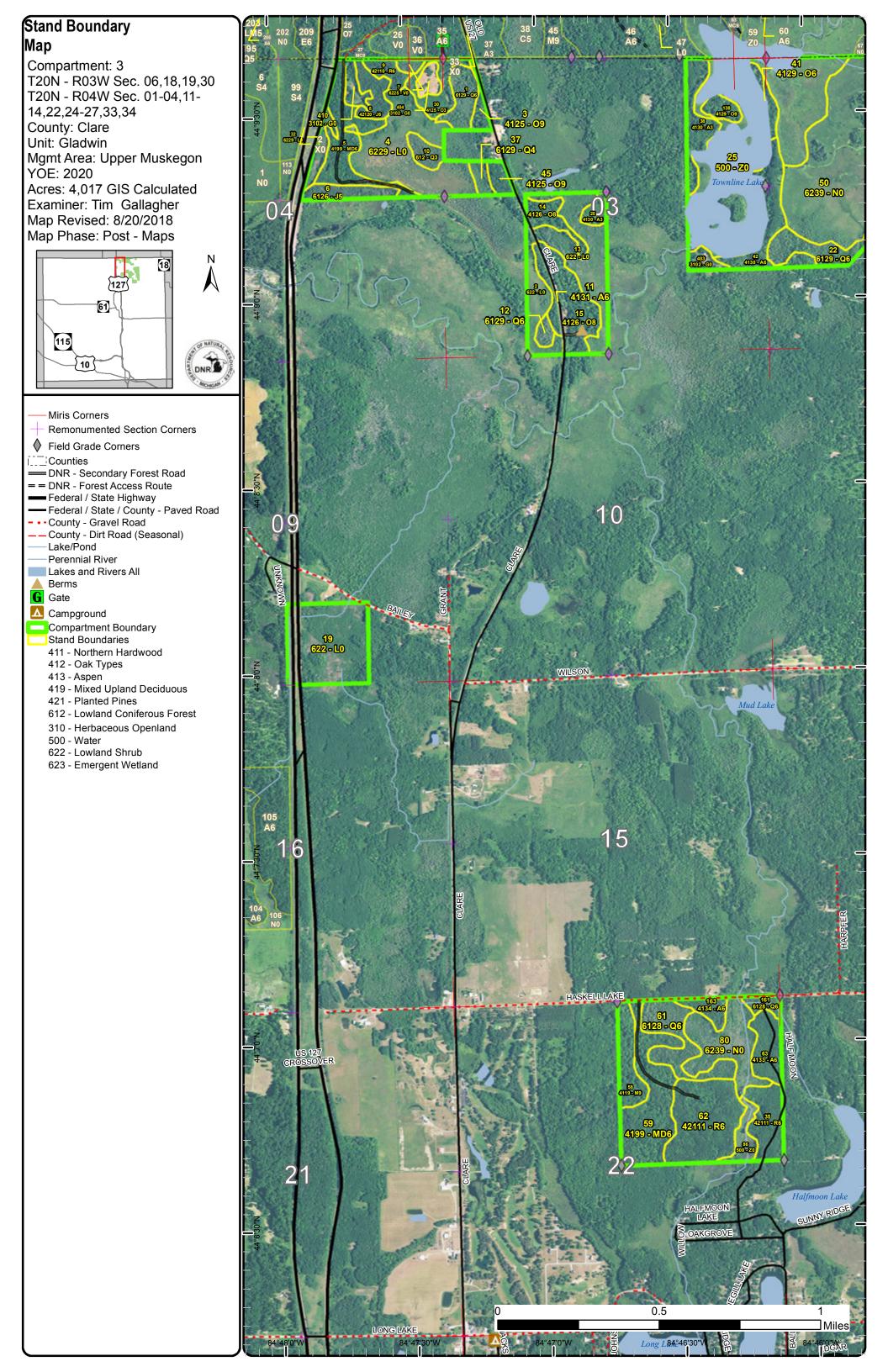


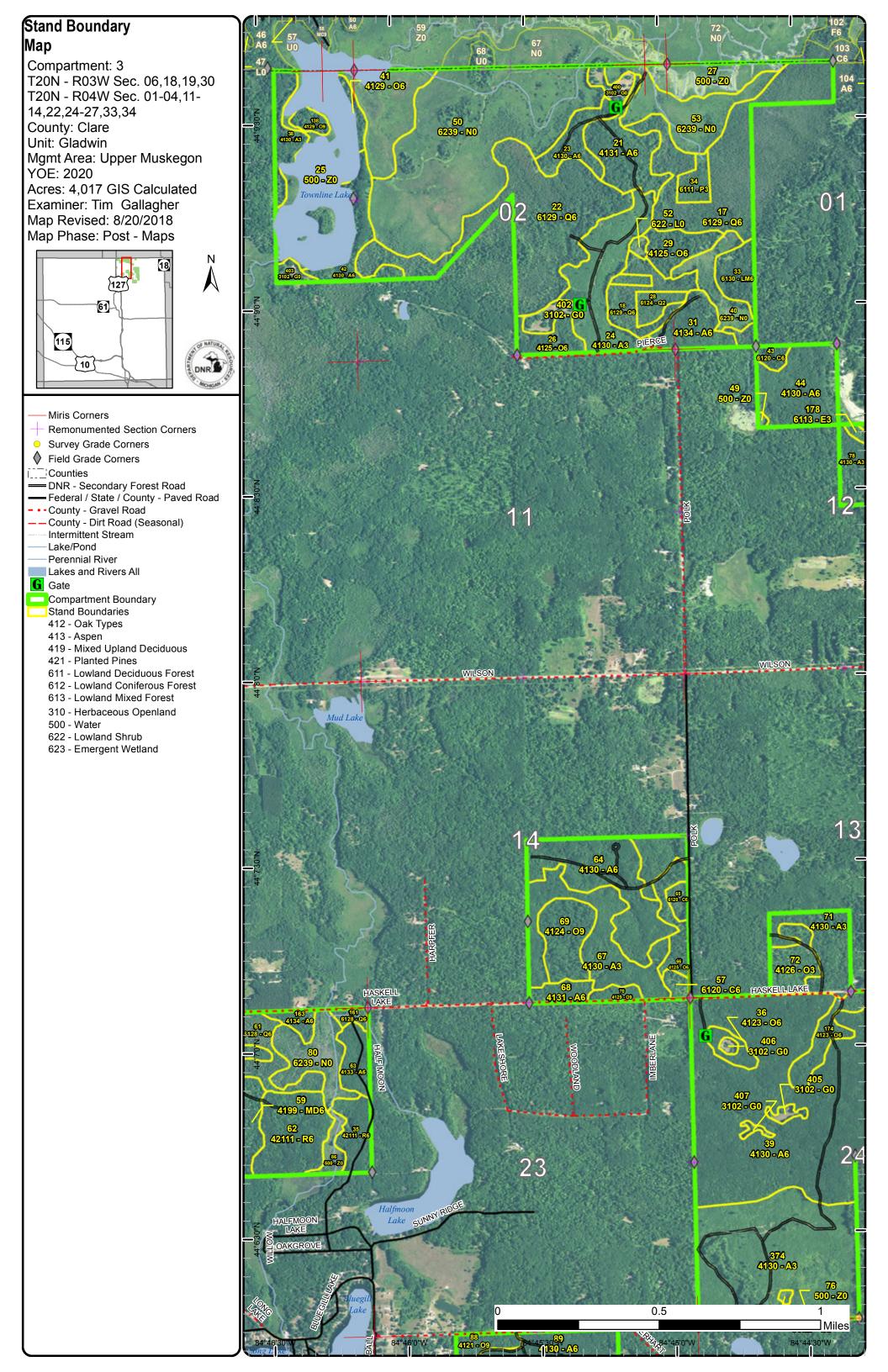


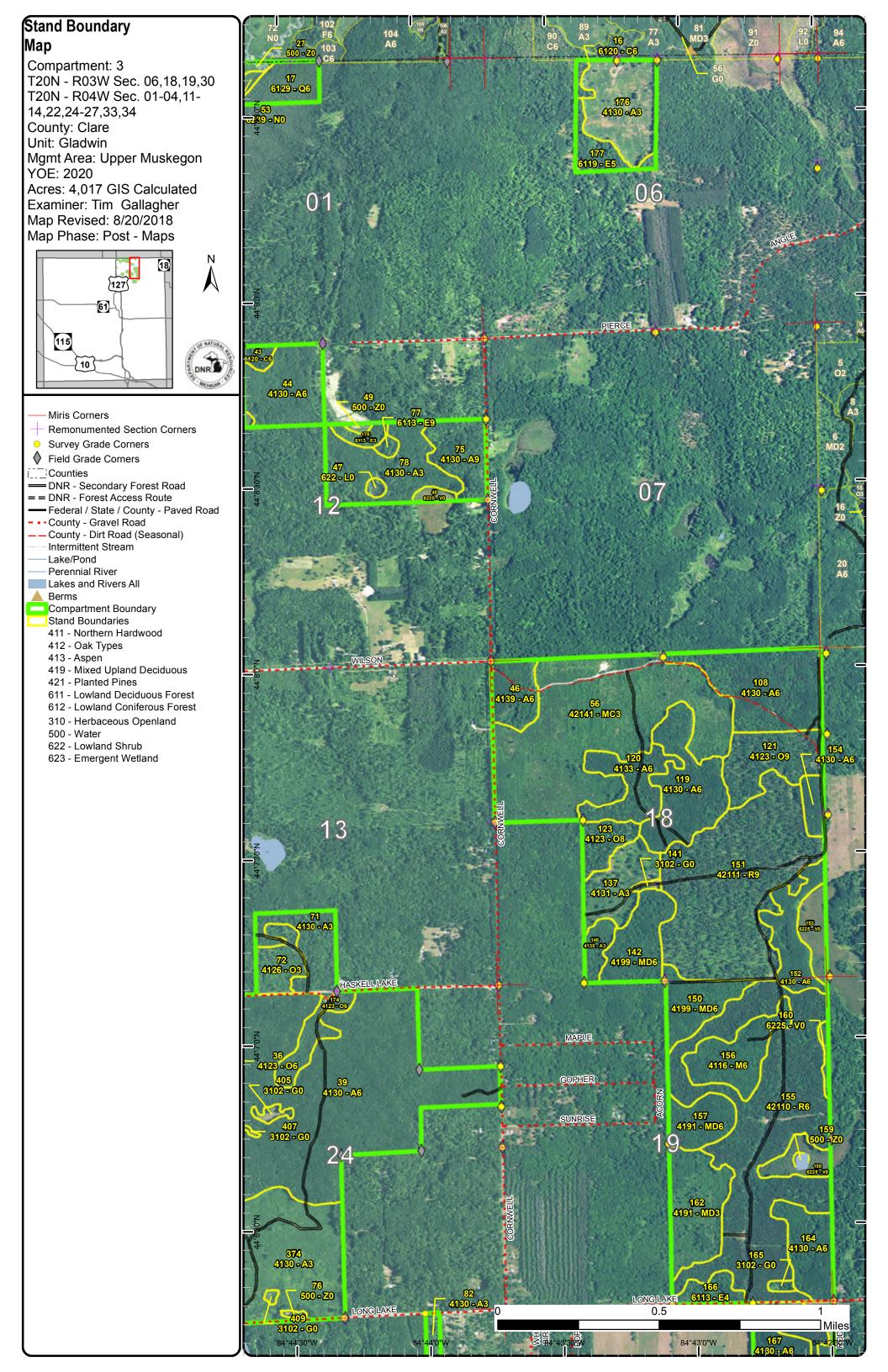


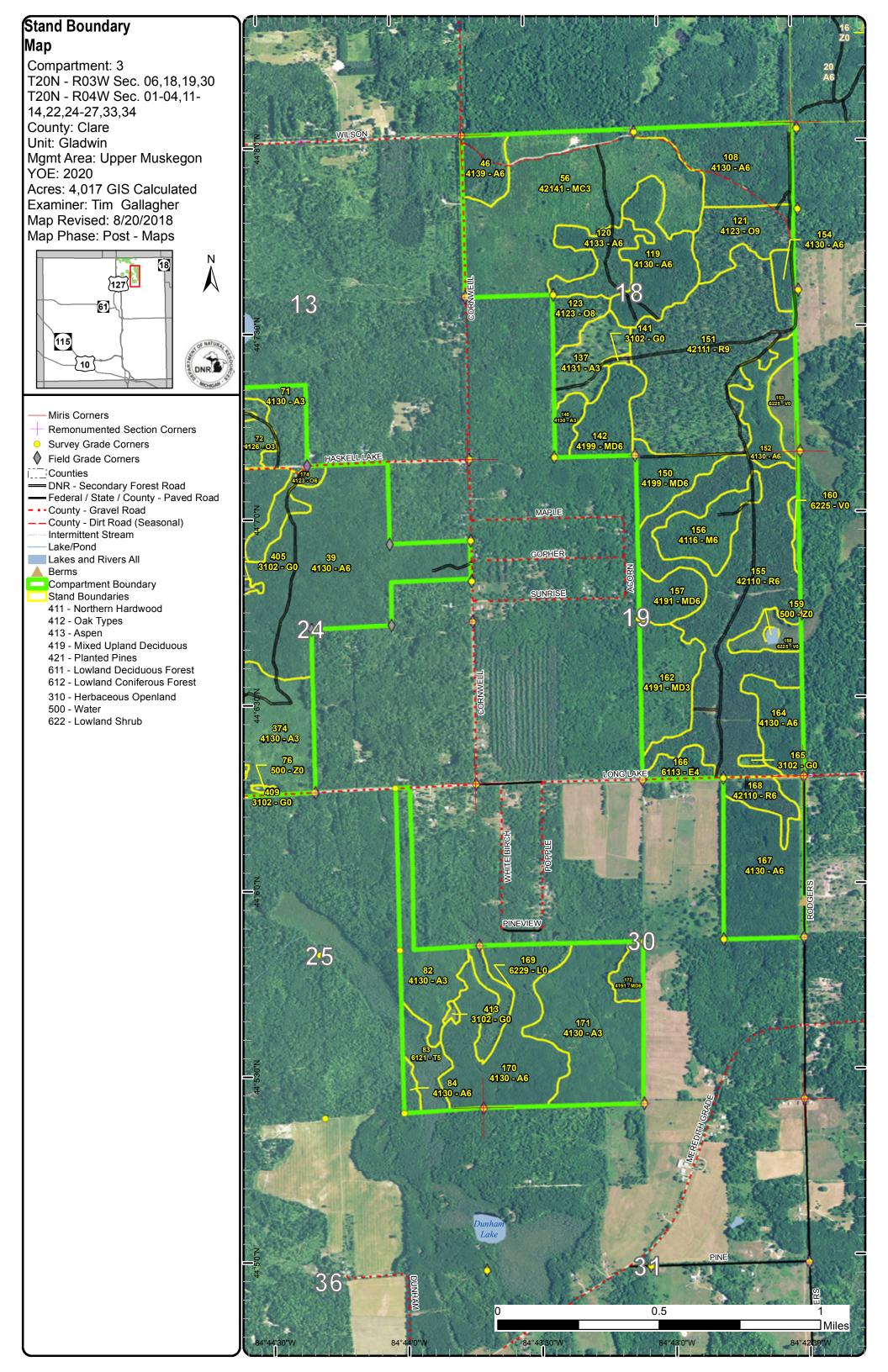


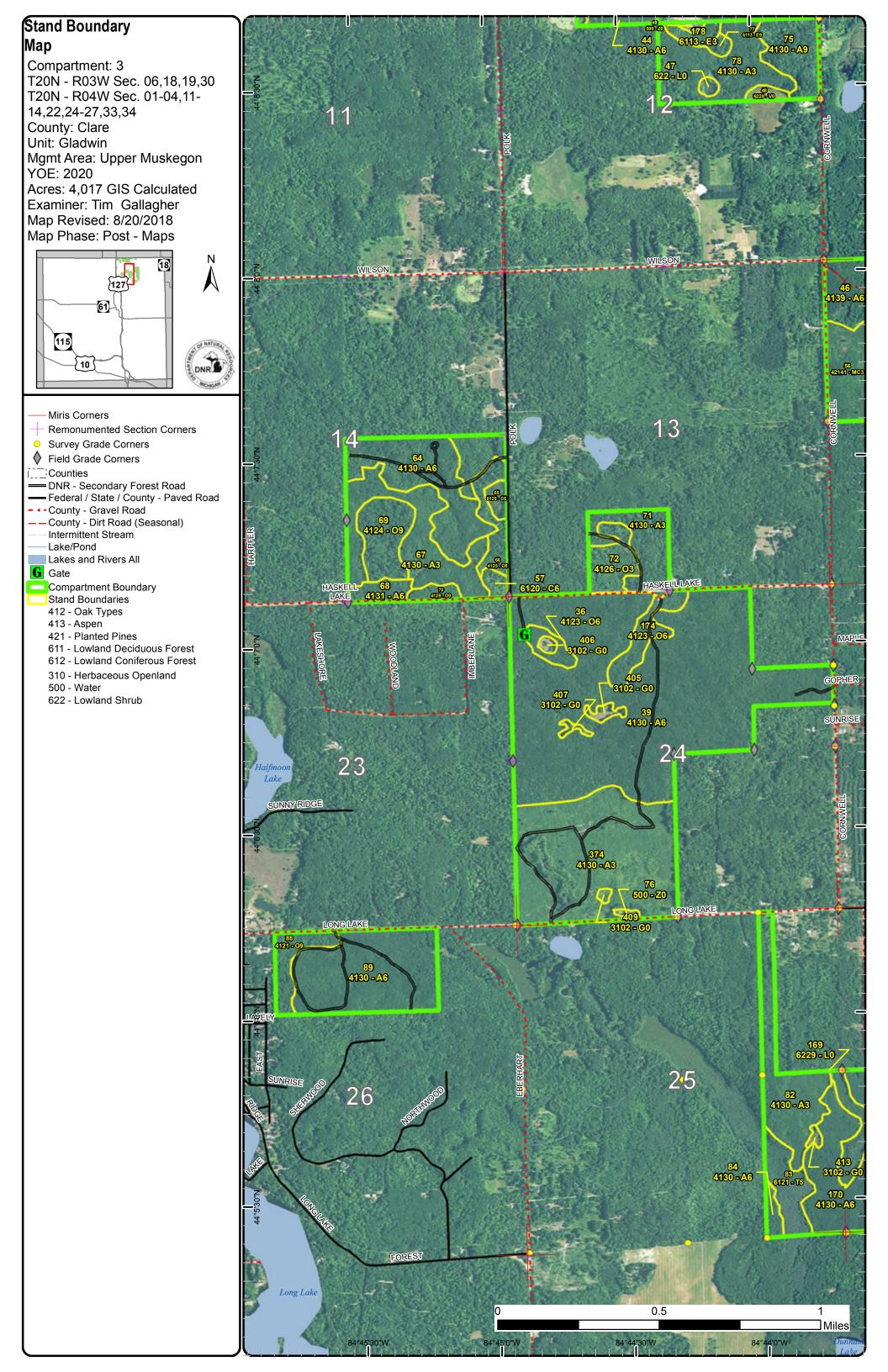


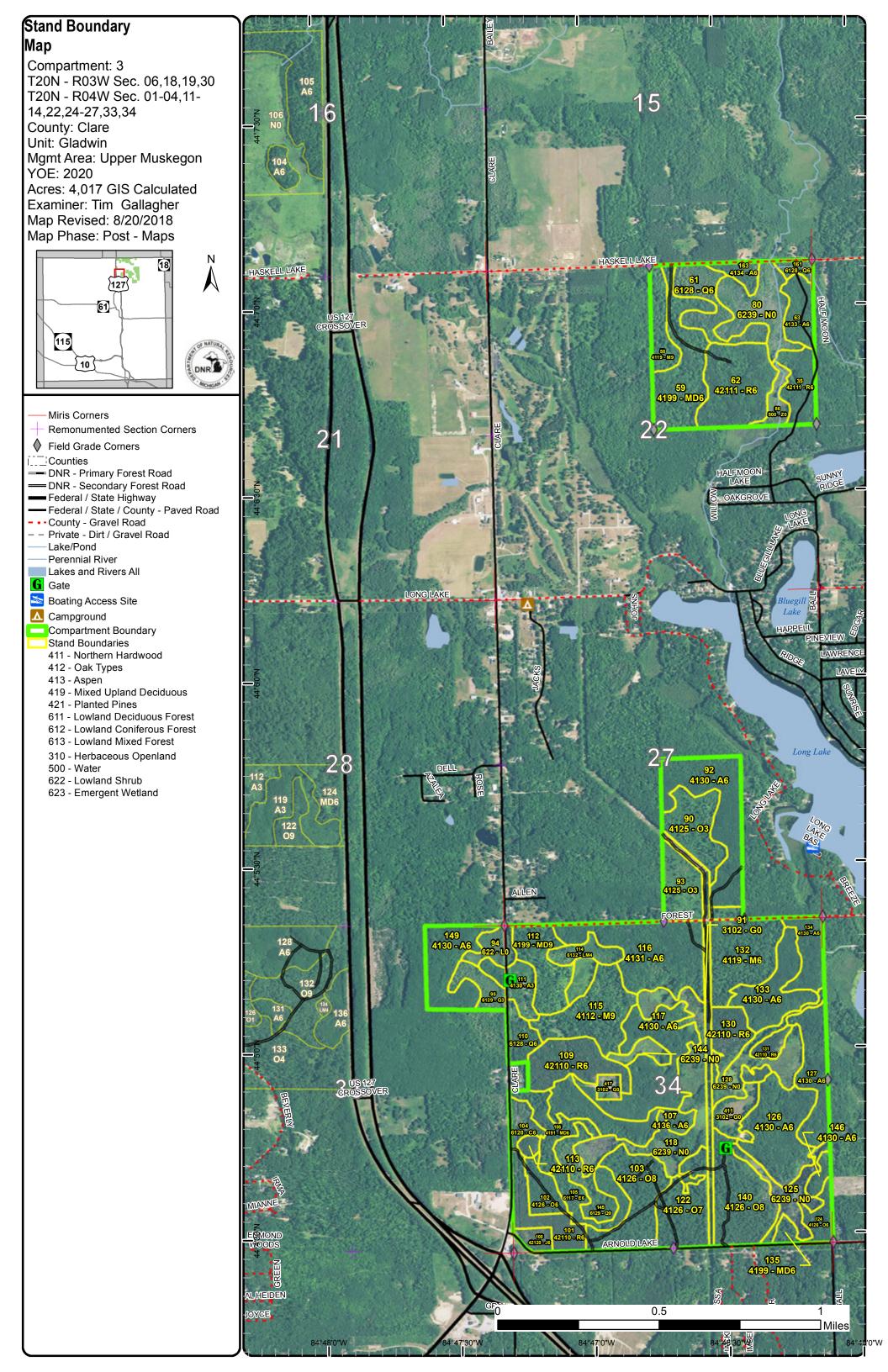


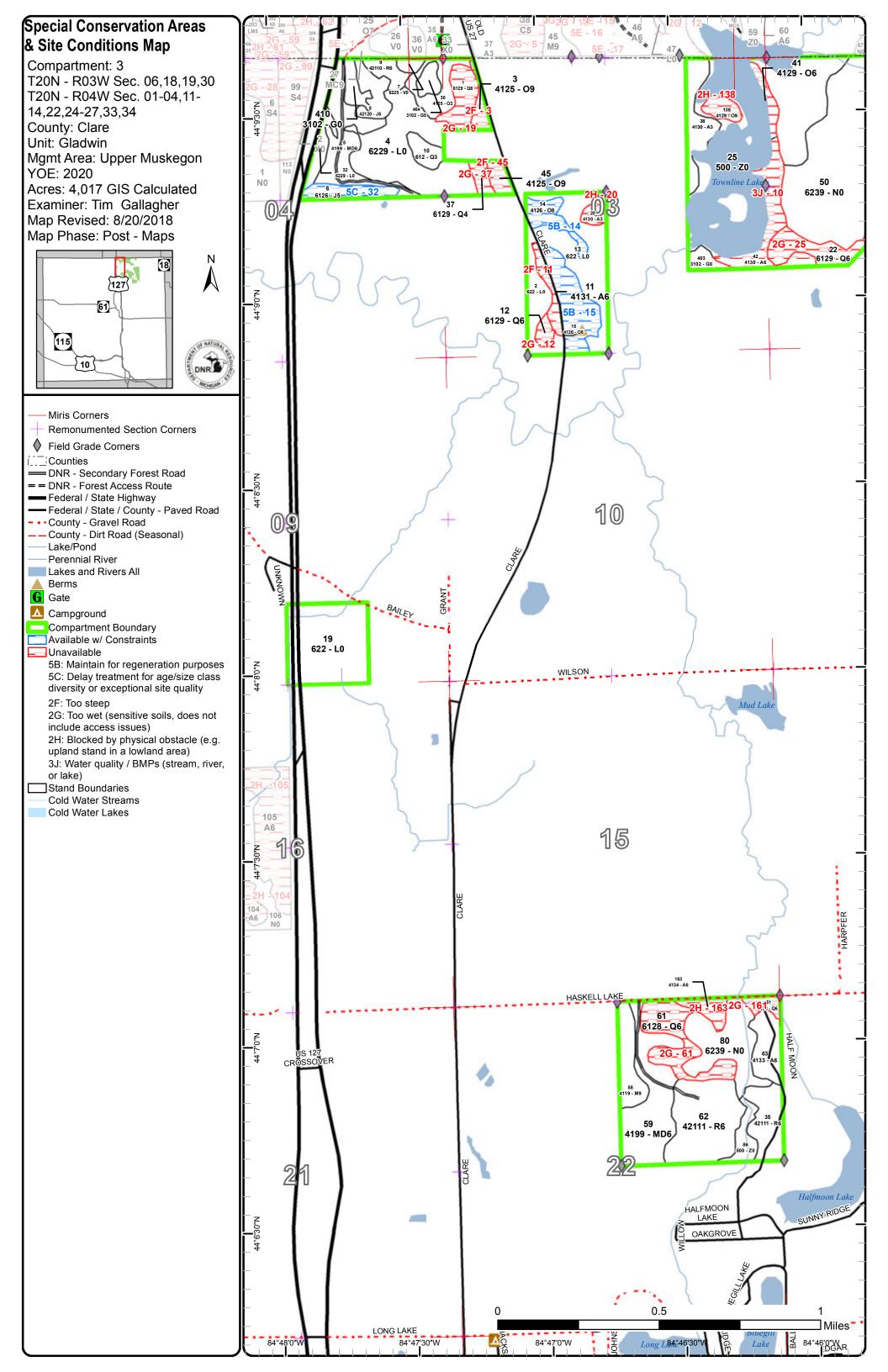


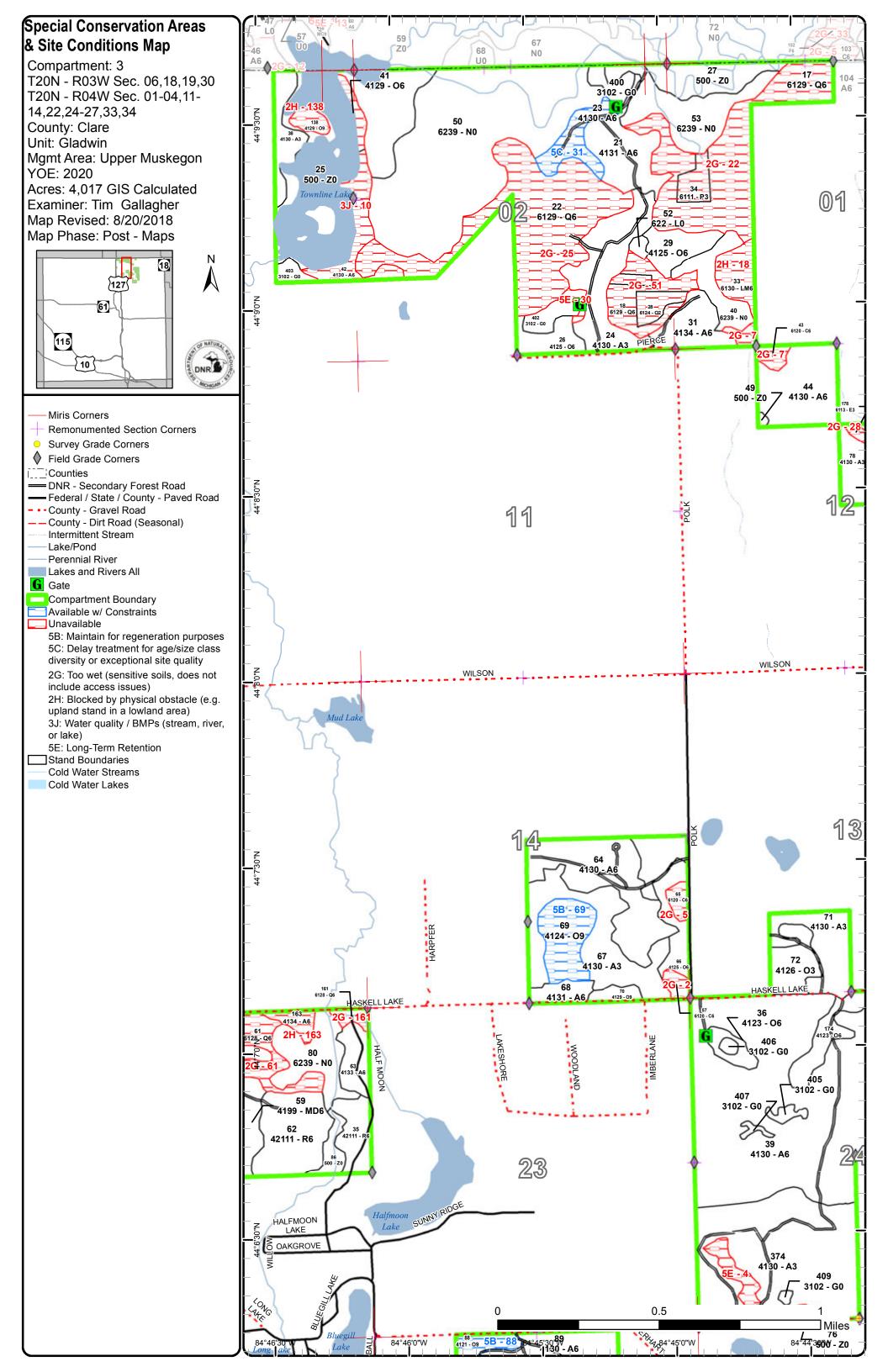


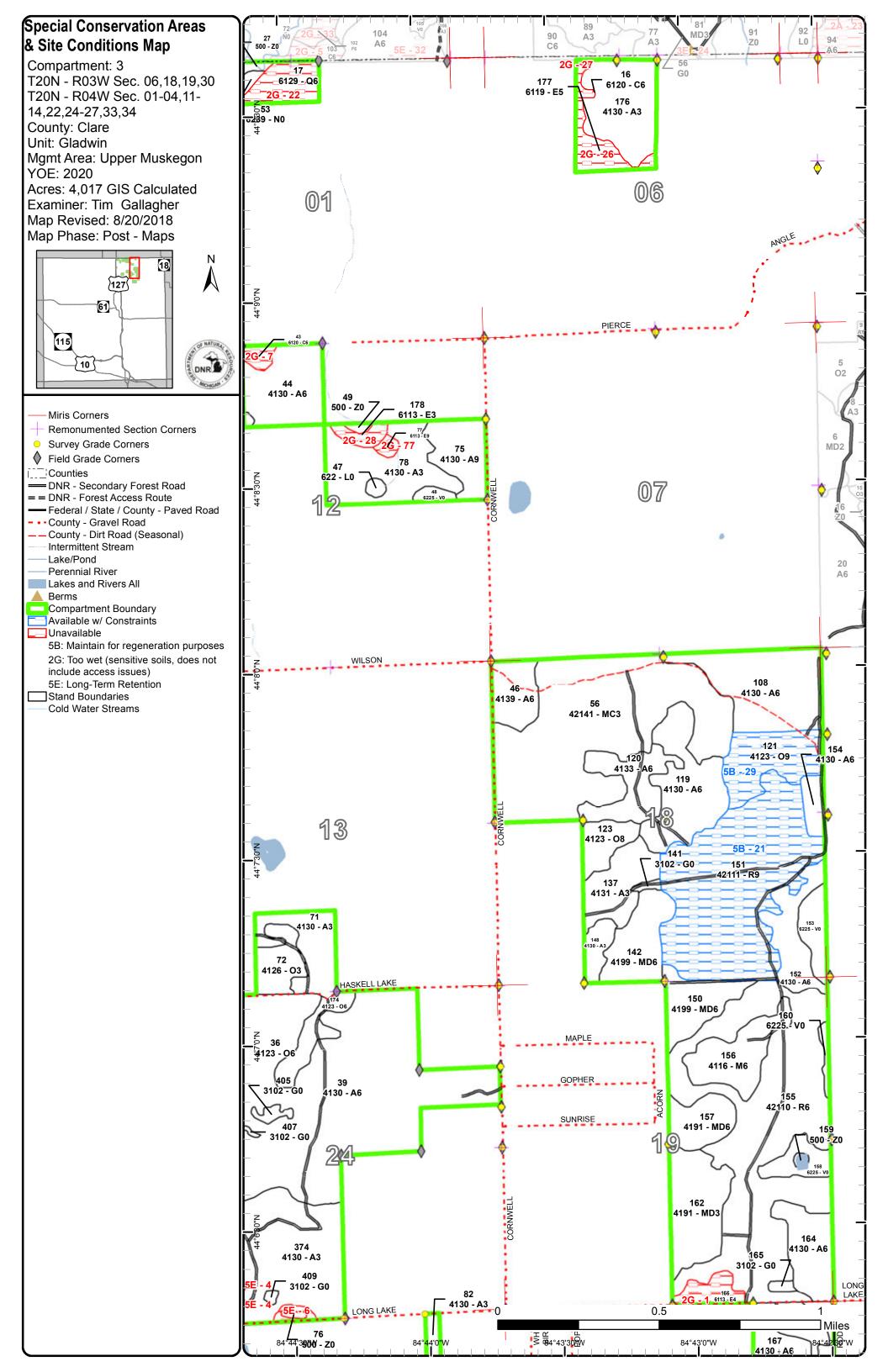


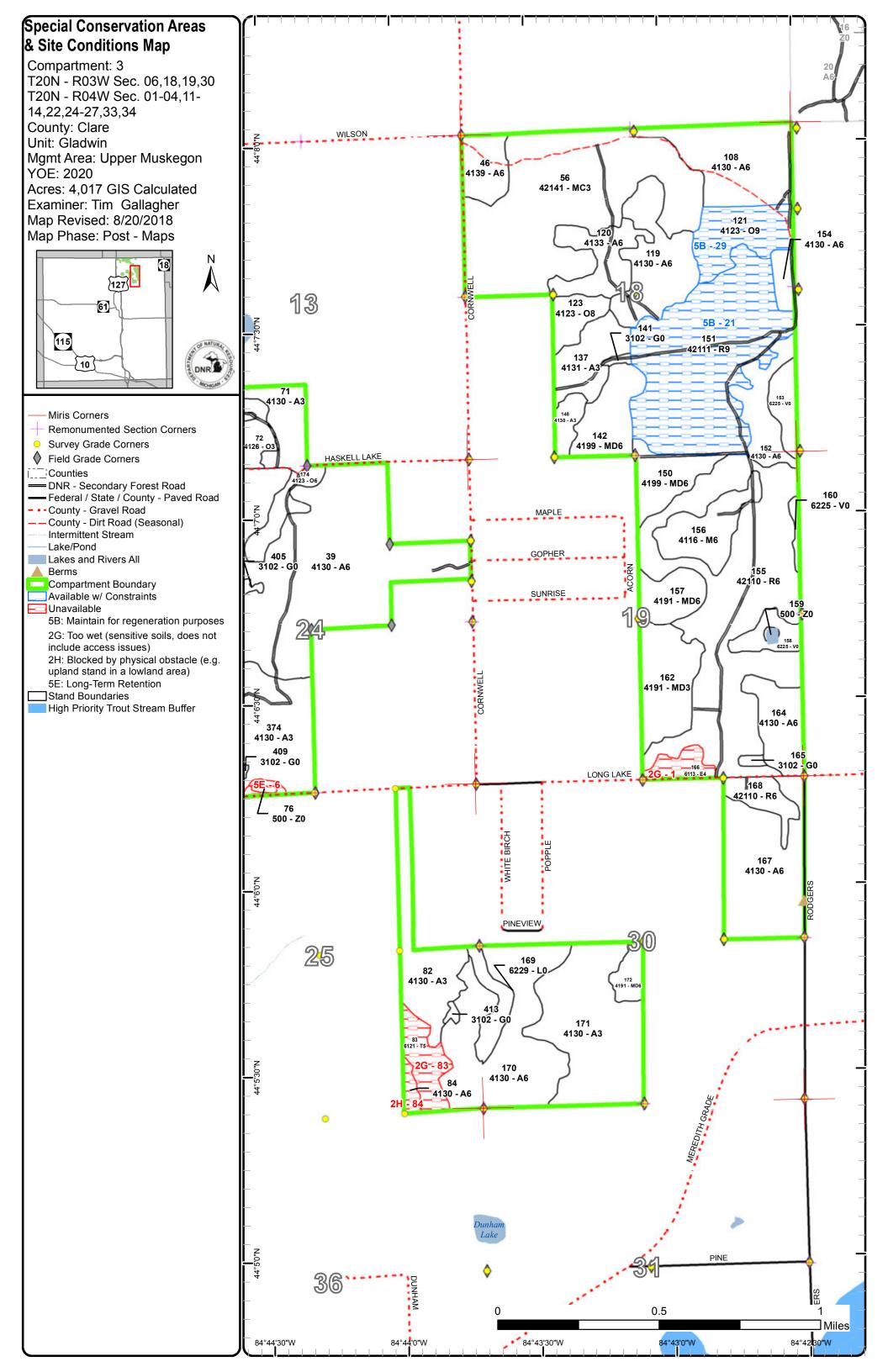


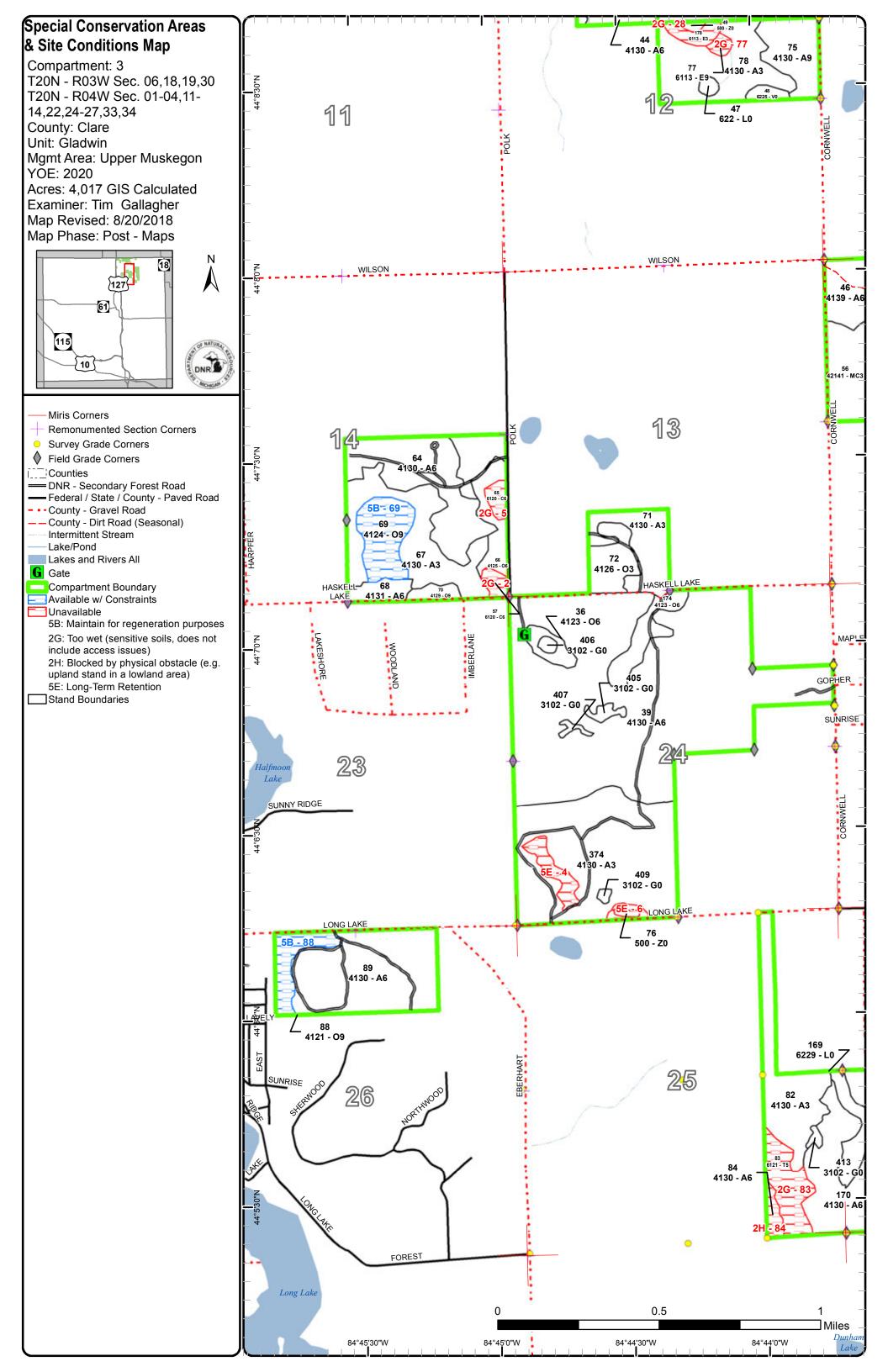


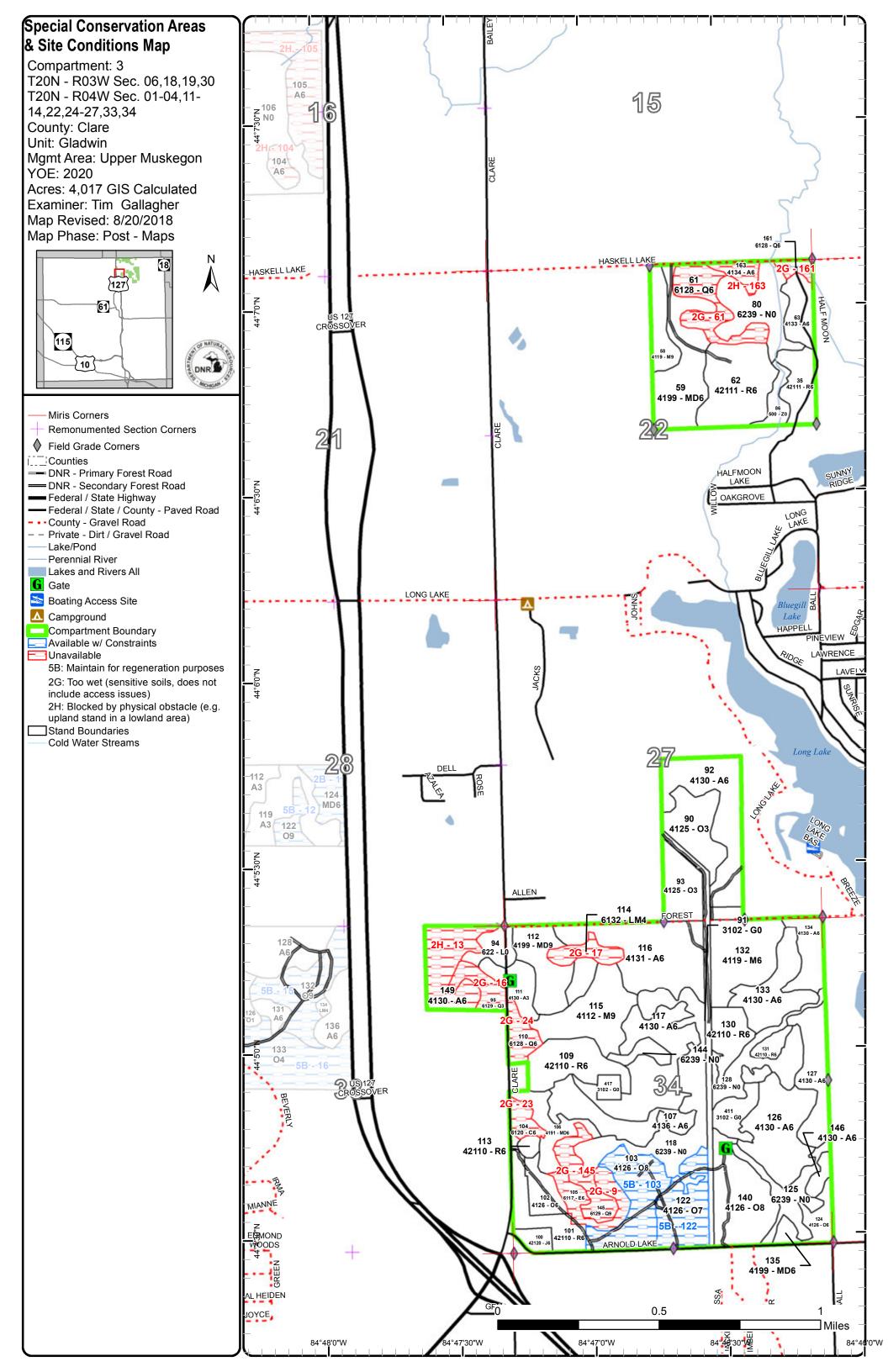














Report 2 – Treatment Summary

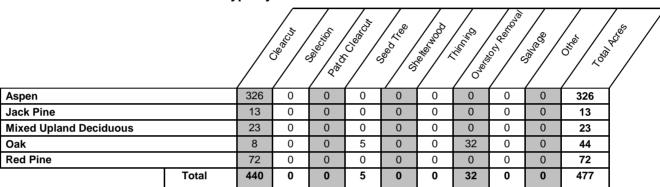
Gladwin Mgt. Unit Year of Entry: 2020

Acres of Harvest

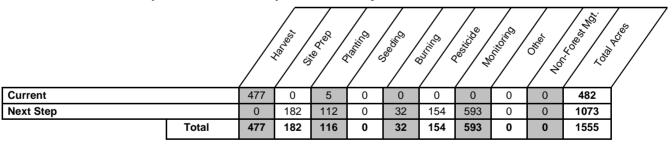
Compartment 3
Total Compartment Acres: 4,017

Commercial Harvest - 477
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Size

Density

Poletimber

Well

Report 3 -- Treatments Compartment: 3

Method

Clearcut with

Retention

Year of Entry: 2020 **Treatment Cover Type** Age **Approval** Objective Structure **Status**

Even-Aged

Approved

Proposal

42110 - Planted

Red Pine

Jack Pine **Habitat Cut: No Site Condition:**

8.0

Acres

Prescription Clear-cut with retention followed by trenching and planting to red pine. Leave uncut islands to meet retention guidelines.

Stand

Age

51

BA

Range

81-110

Specs:

t а

n

d 8

Treatment

Name

73003008-Cut

SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Pesticide, Skidder/Mechanical Next Step

Treatment

Type

Harvest

Treatments:

Acceptable Planted red pine, mixed with natural jack pine regeneration.

Stand

CoverType

42120 - Planted

Regen:

Other Replant with stands 9 and 410.

Comment:

Proposed Start Date: 10/1 /2019

73003009-Cut 5.1 42110 - Planted Poletimber 51 81-110 Harvest Clearcut with 4211 - Planted Even-Aged Approved Red Pine Well Retention Red Pine Proposal

Habitat Cut: No Site Condition:

Prescription Clear-cut with retention followed by trenching and planting to red pine. Leave uncut islands to meet retention guidelines.

Specs:

Next Step SitePrep, Trenching: Planting, Initial Plant: Monitoring, Artificial Regen(1vr); Monitoring, Artificial Regen(3vr); Pesticide, Skidder/Mechanical

Treatments:

Acceptable Planted red pine.

Regen:

Replant with stands 8 and 410. Other

Comment:

10/1 /2019 Proposed Start Date:

73003035-Cut 42111 - Planted 4211 - Planted Poletimber 50 Clearcut with 14.4 111-Harvest Even-Aged Approved Red Pine, Mixed Red Pine Proposal Well 140 Retention

Deciduous

Site Condition: Habitat Cut: No

Prescription Clear-cut with retention. Manage stand for red pine. Clear-cut with reserves 2" spec. followed by site prep to control hardwood, trench and plant Specs:

red pine. To meet retention guidelines leave area retention in a north/south strip. Leaving retention in a strip will facilitate post harvest treatments.

SitePrep, Other - Specify; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Next Step

Treatments: Pesticide, Aerial; Pesticide, Aerial

Acceptable Planted red pine.

Regen: Other

Tops must be chipped to facilitate post harvest activities.

Comment:

Proposed Start Date: 10/1 /2019

73003039-Cut 154.2 4130 - Aspen Poletimber 46 111-Harvest Clearcut with 413 - Aspen Even-Aged Approved Well Retention Proposal 140

Habitat Cut: No Site Condition:

Prescription Clear-cut with retention. Use 2" spec. Avoid spring time logging due to heavy soils. To meet retention guidelines mark to leave scattered mature Specs:

oak tress both individually and in small groups. And leave buffer around gate and grass stands.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Stand is expected to regenerate naturally to a fully stocked aspen stand.

Regen:

Other Apply Gladwin Unit WLD timber sale specifications including grouse drumming log specification.

Comment:

Compartment: 3 Year of Entry: 2020



a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
59	73003059-Cut		99 - Other Mixed pland Deciduous	Poletimber Well	80	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Approved Proposal

Site Condition: Habitat Cut: No

Prescription Clear-cut with retention. Manage stand for red pine. Clear-cut with reserves 2" spec. followed by site prep to control hardwood, trench and plant red pine. To meet retention guidelines leave area retention in a north/south strip. Leaving retention in a strip will facilitate post harvest treatments. Specs:

SitePrep, Trenching; Planting, Initial Plant; SitePrep, Other - Specify; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Next Step

Treatments: Pesticide, Aerial; Pesticide, Aerial

Acceptable Planted red pine.

Regen:

Other Treating the south portion of stand to manage with adjacent stand number 62. Tops must be chipped to facilitate post harvest activities.

Comment:

10/1 /2019 **Proposed Start Date:**

73003062-Cut 33.5 42111 - Planted Poletimber 111-Harvest Clearcut with 4211 - Planted Even-Aged Approved Red Pine, Mixed 140 Red Pine Proposal Well Retention Deciduous

Habitat Cut: No Site Condition:

Prescription Clear-cut with retention. Manage stand for red pine. Clear-cut with reserves 2" spec. followed by site prep to control hardwood, trench and plant Specs: red pine. To meet retention guidelines leave area retention in a north/south strip. Leaving retention in a strip will facilitate post harvest treatments.

SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Next Step

Treatments: Pesticide, Aerial; Pesticide, Aerial

Acceptable Planted red pine.

Regen:

Other Tops must be chipped to facilitate post harvest activities.

Comment:

Proposed Start Date: 10/1 /2019

73003070-Cut 4.6 4129 - Mixed Oak Sawtimber 93 111-Harvest Seed Tree with 4129 - Mixed Even-Aged Approved Well 140 Retention Oak Proposal

Habitat Cut: No Site Condition:

Prescription Remove all aspen and maple; reduce residual oak BA to 10-20 square feet. The stand is expected to regenerate to a fully stocked hardwood Specs: stand following harvest, if needed interplant red pine to maintain full stocking. Avoid spring logging due to heavy soil.

Monitoring, Natural Regen (Intermediate) Next Step

Treatments:

Acceptable A mix of hardwood regeneration is expected, if need interplant red pine to maintain full stocking.

Regen:

Other (Comment:

Proposed Start Date: 10/1 /2019

75 73003075-Cut 22.9 4130 - Aspen Sawtimber 51 111-Harvest Clearcut with 413 - Aspen Even-Aged Approved Well Retention Proposal 140

Habitat Cut: No Site Condition:

Prescription Clear-cut with reserves 2"spec. Manage for a mix of natural regeneration of aspen, red maple and mixed oak. Natural regeneration is expected.

To meet retention guidelines mark to leave red pine, mixed oak and white pine both individually and in small groups. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Stand is expected to regenerate naturally to a mix of aspen, red maple, and mixed oak.

Regen:

Other Apply Gladwin Unit WLD timber sale specifications including grouse drumming log specification.

Comment:

Compartment: 3 Year of Entry: 2020

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Stand **Treatment Treatment Cover Type** Treatment Acres Stand Size BA Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 100 73003100-Cut 42120 - Planted Poletimber 4211 - Planted Approved 4.7 62 81-110 Harvest Clearcut Even-Aged Jack Pine Well Red Pine Proposal

Habitat Cut: No Site Condition:

Prescription Clear-cut without retention. Followed by trenching and planting red pine. 2" spec clear-cut and chip tops to facilitate post harvest activities. Specs:

SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Next Step

Treatments:

Acceptable Planted red pine.

Regen:

No retention due to age of jack pine, pure jack pine, location of stand and post harvest trenching and planting activities. Do not create landing or Other

Comment: road in this stand. Harvest with stand 101 and landing should be on the east side of stand 101 along existing two track.

10/1 /2019 **Proposed Start Date:**

101 73003101-Cut 16.4 42110 - Planted Poletimber 62 171-Harvest Clearcut with 4211 - Planted Even-Aged Approved Red Pine Well 200 Red Pine Retention Proposal

Habitat Cut: No Site Condition:

Prescription Clear-cut with retention. Manage stand for red pine. Clear-cut with reserves 2" spec. To meet retention guidelines leave area retention in a Specs:

north/south strip. Leaving retention in a strip will facilitate post harvest treatments.

Next Step SitePrep. Trenching: Planting, Initial Plant: Monitoring, Artificial Regen(1vr); Monitoring, Artificial Regen(3vr)

Treatments:

Acceptable Planted red pine.

Regen:

Tops must be chipped to facilitate post harvest activities. Manage with stands 100 and 113. Other

Comment:

10/1 /2019 **Proposed Start Date:**

108 73003108-Cut 54.3 4130 - Aspen Poletimber 41 111-Harvest Clearcut with 413 - Aspen Even-Aged Approved Well 140 Retention Proposal

Habitat Cut: No Site Condition:

Prescription Clear-cut with reserves 2"spec. Manage for a mix of natural regeneration of aspen, red maple and mixed oak. Natural regeneration is expected.

To meet retention guidelines mark to leave red pine, mixed oak and white pine both individually and in small groups. Stand contains super Specs:

canopy/legacy red pine and mixed oak that should be left.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Stand is expected to regenerate naturally to a mix of aspen, red maple and mixed oak. Regen:

The very west finger is mostly red maple and mixed oak. Mange this pocket with stand and final harvest this finger at this time. Apply Gladwin Other

Comment: Unit WLD timber sale specifications including grouse drumming log specification.

Proposed Start Date: 10/1 /2019

113 73003113-Cut 2.4 42110 - Planted Poletimber 62 171-Harvest Clearcut with 42110 - Planted Even-Aged Approved

Red Pine Well 200 Retention Red Pine Proposal

Habitat Cut: No Site Condition:

Prescription Clear-cut with retention. Manage stand for red pine. Clear-cut with reserves 2" spec. To meet retention guidelines leave area retention in a

north/south strip. Leaving retention in a strip will facilitate post harvest treatments. Specs:

SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Next Step

Treatments:

Acceptable Planted red pine.

Regen: Other

Tops must be chipped to facilitate post harvest activities. Manage stand with stands 100 and 101.

Comment:

Several wet pockets within stand that need to painted out when harvested, leave buffer around wet areas to meet retention guidelines. The best Other Comment: (possible only place) for landing is in adjacent grass stand to the west (stand 411). Stand must be harvested on dry and/or frozen ground

conditions due to heavy soils. Apply Gladwin Unit WLD timber sale specifications including grouse drumming log specification.

Proposed Start Date: 10/1 /2019

134 73003134-Cut 13.2 Poletimber 56 111-Clearcut with Even-Aged 4130 - Aspen Harvest 413 - Aspen Approved Well 140 Retention Proposal

Habitat Cut: No Site Condition:

Prescription Clear-cut with retention, manage for aspen regeneration with a mix of red maple and oak mixed in. Due to heavy soils avoid spring logging. To meet retention guidelines mark to leave scattered mature oak trees, and leave small un-cut islands approx. 1 -2 acres in size. Leave scattered Specs:

super canopy oak. Visual is a concern along Forest Road.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Stand is expected to regenerate naturally to aspen with a mix of red maple and oak.

Regen: Other

Apply Gladwin Unit WLD timber sale specifications including grouse drumming log specification.

Comment:

Gladwin Mgt. Unit Report 3 -- Treatments Compartment: 3 s Year of Entry: 2020 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure Status d 140 73003140-Cut 32.1 4126 - White. Sawtimber 94 1-50 4129 - Mixed Approved Harvest Overstory Even-Aged Black, N. Pin Oak Medium Removal Oak Proposal **Habitat Cut: No Site Condition:** Prescription Remove over story with retention. Followed by Rx burn to control aspen, red maple regeneration and stimulate the oak. To meet retention guidelines mark to leave super canopy oak both individually and in small groups. Specs: Burn, Other; Monitoring, Natural Regen (Intermediate) Next Step **Treatments:** Acceptable Mixed oak stand with a mix of red maple and aspen. Regen: Other 2" spec to clean up all the maple and aspen in the understory. Chip tops and ensure remaining slash is evenly distributed to facilitate post Comment: harvest activities. May need to wait 2 - 3 years following harvest to burn to obtain maximum desired results. **Proposed Start Date:** 10/1 /2010 4130 - Aspen Harvest 413 - Aspen 146 73003146-Cut 3.9 Poletimber 56 81-110 Clearcut with Even-Aged Approved Well Retention Proposal Habitat Cut: No Site Condition: Prescription Clear-cut with retention, manage for aspen regeneration with a mix of red maple and oak mixed in. Due to heavy soils avoid spring logging. To meet retention guidelines mark to leave scattered mature oak trees, and leave buffer around wet areas. Leave scattered super canopy oak. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Stand is expected to regenerate naturally to aspen with a mix of red maple and oak. Regen: Wet pockets within stand that need to painted out when harvested, leave buffer around wet areas to meet retention guidelines. Manage with Other stand 124. Apply Gladwin Unit WLD timber sale specifications including grouse drumming log specification. Comment: **Proposed Start Date:** 10/1 /2019 73003404-19-**ERROR** Incomplete 37 3102 - Grass Unspecified Unspecified Nonstocked Unspec ified Proposal New **Habitat Cut: No Site Condition:** Prescription

Specs:

Next Step Treatments:

<u>Acceptable</u> Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

73003410-410 4.6 3102 - Grass Initial Plant 4211 - Planted Nonstocked Unspec **Planting** Even-Aged Approved **Plant** ified Red Pine Proposal

Habitat Cut: No Site Condition:

Prescription Trench and plant red pine. Manage (trench and plant) with stands 8 and 9. Clean up tree growth in stand with timber sale when stand 8 is set up. Specs:

SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Next Step

Treatments:

Acceptable Planted red pine.

Regen:

Other Trench and plant with stands 8 and 9.

Comment:

Proposed Start Date: 10/1 /2019

Total Treatment 485.3 Acreage Proposed:

Compartment: 3

Gladwin Mgt. Unit

Tim Gallagher : Examiner Year of Entry: 2020

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres	De	ominaı	nt Site	e Cond	ditions	5		
Acres	Available	With Condition	Not Available		5B	5C	2F	2G	2H	3J	5E
1695	1495	15	186	Aspen		15	5		40	20	121
31	31	0	0	Bog							
24	0	0	24	Cedar				24			
65	65	0	0	Herbaceous Openland							
21	14	8	0	Jack Pine		8					
7	0	0	7	Lowland Aspen/Balsam Poplar				7			
266	5	0	261	Lowland Conifers				261			
43	0	0	43	Lowland Deciduous				43			
20	0	0	20	Lowland Mixed Forest				8	12		
155	155	0	0	Lowland Shrub			0				
308	308	0	0	Marsh							
206	206	0	0	Mixed Upland Deciduous							
99	99	0	0	Northern Hardwood							
355	190	148	18	Oak	148		8		5	6	
151	151	0	0	Planted Mixed Pines							
418	287	131	0	Red Pine	131						
18	0	0	18	Tamarack				18			
133	133	0	0	Water							
4,018	3,139	301	577	Total Forested Acres	279	22	13	361	57	25	121
	78%	7%	14%	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.

				Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
	mments:	ial harvest					

Compartment: 3

Gladwin Mgt. Unit

Tim Gallagher : Examiner Year of Entry: 2020

2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
		narrow that is bordered by priva e of its small size and slope.	te land, (Q-Types, and Old-27. Th	ne stand was prescribed 10	years ago but dropped be	cause it was
4	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Gladwin Mgt. Unit Tim Gallagher: Examiner Unavailable 2G: Too wet (sensitive

	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
;	Comments: Stand is pretty wet treated.	and influenced by a beaver dar	n to the	e north east. Manage with star	nd 103 and 102. Harves	t as much of this stand whe	en adjacent stands are
10	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	25	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
(Comments:						
1	Unavailable	2F: Too steep	5	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
 	the back side slope setup, it was deterr	per between Clare Ave. and low is towards the lowland brush st nined to be inoperable. Possibl	and. Er e to cut	ntire stand is 1 to 3 chains wid with hand picked highly quali	e. This stand has been	prescribed in the past howe	ever, when it was
		e for a landing, Clare Ave woul	d need	to be closed when trees are t			o manage with
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	d need 3	Unspecified		Unspecified	Unspecified
	Unavailable Comments:	2G: Too wet (sensitive soils, does not include			peing cut.		·
•		2G: Too wet (sensitive soils, does not include			peing cut.		
13	Comments:	2G: Too wet (sensitive soils, does not include access issues) 2H: Blocked by physical obstacle (e.g. upland	3	Unspecified	Deing cut. Unspecified	Unspecified	Unspecified

Gladwin Mgt. Unit

Tim Gallagher : Examiner

14	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
15	Available	5B: Maintain for regeneration purposes	19	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
18	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	13	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						

Gladwin Mgt. Unit

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20	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
	Comments:						
21	Available	5B: Maintain for regeneration purposes	131	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Stand just had sele	ction harvest in 2014.					
22	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	78	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
23	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
24	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	93	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Gladwin Mgt. Unit
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Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
To wet for commer	cial harvest.					
Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
To wet for commer	cial harvest.					
Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Available	5B: Maintain for regeneration purposes	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand just had sele	ection harvest in 2014.					
Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention for stand	l 24.					
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Delay treatment an	nd manage with stand 21.					
	Comments: To wet for commer Unavailable Comments: To wet for commer Unavailable Comments: Stand just had sele Unavailable Comments: Retention for stand Available Comments:	Soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: Available 5B: Maintain for regeneration purposes Comments: Stand just had selection harvest in 2014. Unavailable 5E: Long-Term Retention Comments: Retention for stand 24. Available 5C: Delay treatment for age/size class diversity or exceptional site quality	Soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: Available 5B: Maintain for regeneration purposes Comments: Stand just had selection harvest in 2014. Unavailable 5E: Long-Term Retention 3 Comments: Retention for stand 24. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: Available 5B: Maintain for regeneration purposes Comments: Stand just had selection harvest in 2014. Unavailable 5E: Long-Term Retention 3 Unspecified Comments: Retention for stand 24. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Unspecified Unspecified Unspecified Unspecified Comments: Available 5B: Maintain for regeneration purposes Comments: Unavailable 5E: Long-Term Retention 3 Unspecified Unspecified Comments: Retention for stand 24. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	Soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: To wet for commercial harvest. Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: Available 5B: Maintain for regeneration purposes Comments: Comments: Retention for stand 24. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: Com

Gladwin Mgt. Unit

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32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
T		d barrow area for the construction aving decent trees and fair site and.					
37	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
S		oarders Old-76, private to the no stand also slopes to the west.	orth and se	outh and a Q type to the	west. It was prescribed for	harvest in the past but wa	s dropped because it
51	Unavailable	2G: Too wot (consitive	20	Unenacified	Unspecified	Unengcified	Unenocified
51	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	29	Unspecified	Unspecified	Unspecified	Unspecified
	Unavailable Comments:	soils, does not include	29	Unspecified	Unspecified	Unspecified	Unspecified
51 C		soils, does not include	29 19	Unspecified Unspecified	Unspecified Unspecified	Unspecified Unspecified	Unspecified

Gladwin Mgt. Unit

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69	Available	5B: Maintain for regeneration purposes	22	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
77	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
83	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
	comments: o wet for commer	cial harvest.					
84	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
88	Available	5B: Maintain for regeneration purposes	14	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
103	Available	5B: Maintain for regeneration purposes	29	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						

Report 4 – Site Conditions

Gladwin Mgt. Unit

stand is elevated above the road. Small acers and barley enough room for a landing.

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122	Available	5B: Maintain for regeneration purposes	24	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
138	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
145	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
161	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
163	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - 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
Comments				

Gladwin Mgt. Unit Compartment: 3
Year of Entry 2020



Report 6 – 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.

Conservation	on Type	Description ERA = Ecological Reference Area HCVA = High Conservation Value A SCA = Special Conservation Area									
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxy stocked trout populations and those of other coldwate conditions for coldwater fishes may occur in Michiga groundwater inflows, or are located in colder (northe Director's action and designated as trout resources by	ter fish species to persist from year to year. Suitable in lakes if they are relatively deep, have substantial irn) areas of the state. Such lakes are established by								
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved of stocked trout populations and those of other coldwater year to year. Coldwater streams in Michigan typically contributions of groundwater to their stream flows. Since designated as trout resources by Fisheries Order 21	ter fish species (e.g., slimy sculpin) to persist from y provide these conditions due to substantial uch streams are established by Director's action and								

S t	Gladwin	Mgt. Unit		Report 7	– Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	9.7	86	81-110	
3	4125 - Black, N. Pin Oak	Sawtimber Well	3.9	102	51-80	Stand is small and narrow. And is bordered by private land, Q- Types, and Old-27. The stand was prescribed 10 years ago but dropped because it was inoperable because of its small size and slope.
5	4199 - Other Mixed Upland Deciduous	Poletimber Well	22.7	89	51-80	All pine and aspen were cut in 1991. Travel Zone, 73-001-91-01. The intent of the 1991 harvest was to manage as a two aged hardwood stand for a buffer along the freeway. The intent of the buffer zone is to lessen the visual impacts of the anticipated clear-cuts in the adjacent jack pine stands. Stand runs along the freeway for a 1/2 mile. Pretty wet in places. Dense red maple understory reaching pole size. Narrow ridge to the north with more aspen and narrow ridge to the south with more oak.
6	6126 - Lowland Jack Pine	Poletimber Medium	7.7	59	51-80	This stand is an old barrow area for the construction US-127, that was planted to jack pine. Most of the stand is low, wet and has very poor quality. The edges are an exception having decent trees and fair site indexes. Parts of stand might be to wet to harvest.
8	42120 - Planted Jack Pine	Poletimber Well	8.0	51	81-110	Scattered wet pockets.
9	42110 - Planted Red Pine	Poletimber Well	5.1	51	81-110	Scattered wet pockets.
10	612 - Lowland Coniferous Forest	Sapling Well	5.1	26	Immature	
11	4131 - Aspen, Oak	Poletimber Well	4.9	82	1-50	Narrow strip of timber between Clare Ave. and lowland brush type. Stand is an elevated bank above the road and slopes back down towards the road and on the back side slopes towards the lowland brush stand. Entire stand is 1 to 3 chains wide. This stand has been prescribed in the past however, when it was setup, it was determined to be inoperable. The north ½ of the stand has some colorado blue spruce planted.
12	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	2.7	102	81-110	
14	4126 - White, Black, N. Pin Oak	Sawtimber Medium	7.6	98	1-50	Shelterwood harvest 2005. North Clare Ave. 73-039-01-01. Residual BA ranges from 30 - 40 sq ft.
15	4126 - White, Black, N. Pin Oak	Sawtimber Medium	18.8	92	1-50	Shelterwood harvest 2005. North Clare Ave. 73-039-01-01. Residual BA ranges from 30 - 40 sq ft.
16	6120 - Lowland Cedar	Poletimber Well	2.5	107	81-110	Lowland conifer stand with mixed hardwood. To wet for commercial harvest.
17	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	70.9	115	81-110	True lowland Q type, these stands have lots of diversity and are pretty wet. To wet for any type of commercial harvest. Adjacent to Townline Creek Flooding.

S	Gladwin Mgt. Unit			Report 7	- Forested	Stands Compartment: 3 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	19.3	115	81-110	True lowland Q type, these stands have lots of diversity and are pretty wet. To wet for any type of commercial harvest.
20	4130 - Aspen	Sapling Well	3.6	6	Immature	Stand has no access for commercial harvest surrounded by lowland brush and private. Habitat cut within the past 10 years, no record of habitat work is available at this time.
21	4131 - Aspen, Oak	Poletimber Well	26.9	25	51-80	Partial harvest 1993. Everything but oak and beech were cut. The stand has a residual over story of larger oak. Residual oak BA/AC varies greatly, in some places its 10 -20 sq. ft. and others its 50 - 60 sq. ft. It would be best to hold off another rotation before any type of harvest letting the sub canopy develop a bit more. There are benefits to manage with stand 23, which could be harvestd this year of entry.
22	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	92.5	115	81-110	True lowland Q type, these stands have lots of diversity and are pretty wet. To wet for any type of commercial harvest. Adjacent to Townline Creek Flooding.
23	4130 - Aspen	Poletimber Well	14.6	48	81-110	Mature aspen stand. Adjacent to Townline Creek Flooding. Manage with stand 21.
24	4130 - Aspen	Sapling Well	43.7	6	Immature	Clear-cut 2012. OT Aspen, 73-011-10-01.
26	4125 - Black, N. Pin Oak	Poletimber Well	11.2	46	51-80	Cut in 1972. The oak is coming back very well in the form of stump sprouts. Scattered red maple, aspen and white pine.
28	6124 - Lowland Spruce- Fir	Sapling Medium	9.2	37	Unspecified	Cedar fence post sale in 1981.
29	4125 - Black, N. Pin Oak	Poletimber Well	13.7	36	1-50	Clear-cut 1982.
30	4125 - Black, N. Pin Oak	Sapling Well	9.7	13	Immature	Clear-cut 2005. North Clare Ave, 73-039-01-01
31	4134 - Aspen, Spruce/Fir	Poletimber Well	18.6	26	1-50	Clear-cut 1992. Scattered low wet pockets with cedar. Inclusion of scattered small open areas (G types)
33	6130 - Fir, Aspen, Maple	Poletimber Well	12.5	36	81-110	Stand is influenced by beaver. Some type of cut in the past, possible habitat cut in 1982. Access for commercial harvest is limited. Plus stand is wet.
34	6111 - Lowland Balsam Poplar	Sapling Well	7.3	36	Unspecified	Possible habitat cut in early 80's.
35	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	14.4	50	111-140	The stand was harvested in 1982 removing all hardwoods and pine 18" and up. This left the stand with pockets of planted red pine and pockets of hardwood regeneration.

4123 - Red Oak

36

Poletimber Well 6.0

46

51-80

Red oak stump sprouts.

S t				Report 7	Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	3.5	86	1-50	
38	4130 - Aspen	Sapling Well	13.9	23	Immature	Clear-cut 1995. Townline Floodwaters 73-022-95-01. Beaver activity.
39	4130 - Aspen	Poletimber Well	276.2	46	111-140	Large aspen stand. One third of stand was cut last year of entry (stand 374). The plan last year of entry was to cut a third of the stand for three consecutive ten year rotations. Continue to follow that plan.
41	4129 - Mixed Oak	Poletimber Well	5.6	52	81-110	Stand is a ridge that fingers out between the Townline Creek Flooding. Access is an issue with this stand.
42	4130 - Aspen	Poletimber Well	19.8	53	81-110	Stand is a ridge that fingers out between the Townline Creek Flooding. Access is an issue with this stand.
43	6120 - Lowland Cedar	Poletimber Well	6.8	105	111-140	
44	4130 - Aspen	Poletimber Well	35.2	26	1-50	Clear-cut 1991. Pierce Road, 73-039-90-01. Small inclusion of Z type at SW corner of stand and along east line. No legal access.
45	4125 - Black, N. Pin Oak	Sawtimber Well	4.1	102	81-110	Small stand that boarders Old-76, private to the north and south and a Q type to the west. It was prescribed for harvest in the past but was dropped because it is inoperable. The stand also slopes to the west.
46	4139 - Aspen, Mixed Deciduous	Poletimber Well	18.1	42	111-140	Selective clear-cut 1976. Fair amount of larger diameter timber that was residual from 1976 cut. East end of stand has more mixed hardwood. Scattered red pine left (18" DBH red pine)
56	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Well	151.2	12	Immature	Clear-cut 2005 followed by trenching and planting to red pine. Also had herbicide application to control pin cherry. Lots of mixed hardwood competition for the red pine. It appears the stand is moving along to a mixed hardwood/red pine stand. There are pockets that are heavier to hardwood and pockets that are heavier to red pine.
57	6120 - Lowland Cedar	Poletimber Well	3.8	104	81-110	Very wet mucky stand. Some blow down is present.
58	4119 - Mixed Northern Hardwoods	Sawtimber Well	12.2	80	51-80	Selection harvest 2005. Oak Interchange, 73-011-01-01. Residual BA is 65 sq ft. East facing aspect. Currently the BA is 70 sq ft.
59	4199 - Other Mixed Upland Deciduous	Poletimber Well	33.0	80	51-80	Improvement harvest 2005. Oak Interchange, 73,011-01-01. All the aspen was removed. Residual BA is 71 sq ft.
61	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	19.2	141	111-140	Stand has been influenced by beaver in the past. Some wind damage. Dense balsam fir understory. Very wet mucky soils, to wet for commercial harvest.

S t	Gladwin Mgt. Unit			Report 7	Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	33.5	50	111-140	The stand was harvested in 1982 removing all hardwoods and pine 18" and up. This left the stand with pockets of planted red pine and pockets of hardwood regeneration.
63	4133 - Aspen, Mixed Pine	Poletimber Well	11.6	27	1-50	Clear-cut 1991. Aspen Remnant, 73-005-91-01. Fair amount of red pine mixed in.
64	4130 - Aspen	Poletimber Well	48.9	27	1-50	Clear-cut 1991. Polk Oak 73-045-01-01.
65	6120 - Lowland Cedar	Poletimber Well	4.2	104	141-170	Stand is in a depression along County Road. Mucky soil. Wind throw is present.
66	4125 - Black, N. Pin Oak	Poletimber Well	13.2	59	51-80	Shelterwood harvest 2005. North Clare Ave. 73-039-01-01. All aspen, birch were cut, in addition marked maple and oak were cut. Residual BA oak and maple 50 sq ft.
67	4130 - Aspen	Sapling Well	57.2	15	Immature	Clear-cut 2002. North Clare Ave. 73-039-01-01. Excellent aspen regeneration. Small inclusion of A6 that was not cut in very NE corner of stand.
68	4131 - Aspen, Oak	Poletimber Well	7.6	27	1-50	Clear-cut 1991. Haskell Lake Buffer, 73-058-90-01. All oak 12" DBH was left.
69	4124 - Red with White Oak	Sawtimber Well	22.4	104	1-50	Shelterwood harvest 2005. North Clare Ave. 73-039-01-01. All but live oak was cut. Stand is currently two-aged. Residual oak BA 30 -40 sq ft.
70	4129 - Mixed Oak	Sawtimber Well	4.6	93	111-140	The stand has a north aspect. Not much in the understory. No records or indication on the ground of any past treatments. High quality oak saw logs. Harvest by removing all the aspen and maple and reducing the residual oak BA to 10-20 square feet. The stand is expected to regenerate well after harvest, if not interplant red pine.
71	4130 - Aspen	Sapling Well	24.9	25	Immature	Partial harvest 1993. All oak and beech were left. The species in the over story are mainly black and white oak with some beech. Manage for understory.
72	4126 - White, Black, N. Pin Oak	Sapling Well	15.9	13	Immature	Over story removal 2005. Oak Interchange, 73-011-01-01. Residual mature oak trees is less then 10 sq ft.
75	4130 - Aspen	Sawtimber Well	22.9	51	111-140	Mature aspen stand.
77	6113 - Lowland Maple	Sawtimber Well	2.2	87	111-140	Small wet stand that was left when stand 78 was harvested. There are several drainages going through the stand. To wet for commercial harvest.
78	4130 - Aspen	Sapling Well	43.0	24	Immature	Clear-cut 1994. Scattered lower areas within stand. Some areas were rutted. Scattered mature mixed oak was left in the southwest corner of stand.

S t	Gladwin	Mgt. Unit		Report 7	Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
82	4130 - Aspen	Sapling Well	40.9	14	Immature	Clear-cut 2004. #1 Aspen, 73-001-04-01. Stand includes 220' foot wide access strip that connects block of state land to County Road. A narrow drainage bisects the strip,
83	6121 - Tamarack	Poletimber Medium	18.2	96	1-50	Ground cover is sphagnum moss, water plantain, blue flag, and golden thread.
84	4130 - Aspen	Poletimber Well	4.3	86	81-110	Stand has no access for commercial harvest blocked by private land and lowland timber types.
88	4121 - Oak, Aspen	Sawtimber Well	13.6	105	81-110	This stand was harvested in 1984 removing all aspen, maple and birch. All oak was left. Leading towards a two-aged stand. Over story oak has an average DBH of 15" and the understory aspen and maple has an average DBH of 5". Manage with adjacent stand (stand 89). Stand is directly adjacent to a Long Lake Subdivision.
89	4130 - Aspen	Poletimber Well	68.4	34	81-110	Clear-cut 1984.
90	4125 - Black, N. Pin Oak	Sapling Well	20.4	13	Immature	Over story removal 2005. Oak Interchange, 73-11-01-01. Less than 10 sq ft of mature oak was left. Stand is regenerating to a well stocked oak/mixed hardwood stand.
92	4130 - Aspen	Poletimber Well	36.6	33	1-50	Clear-cut 1985. Forest Road, 73-02-85-01.
93	4125 - Black, N. Pin Oak	Sapling Well	18.5	6	Immature	Clear-cut with retention 2012. Halfmoon Hardwood 73-004-10-01. Clear-cut was a 4 inch spec. and green painted leave trees, 36 mature mixed oak trees were left. Stand had first shelter wood harvest in 1991, maple, aspen, birch and some marked oak trees removed in 1991.
95	6129 - Mixed Coniferous Lowland Forest	Sapling Well	8.6	33	Immature	To wet for commercial harvest. Water table influenced by beaver activity. Small pocket of older pole timber at north west corner of stand.
100	42120 - Planted Jack Pine	Poletimber Well	4.7	62	81-110	Planted jack pine, with tight spacing. Extremely visible stand, located at the corner of Old 27 and Arnold Lake Road at US-127 interchange. Stand is in a depression. (possibly an old sand borrow pit when the interchange was built)
101	42110 - Planted Red Pine	Poletimber Well	16.4	62	171-200	Thinned (second thinning) 2012. Halfmoon Pine 73-022-10-01. First thinning (third row) was in 1994. Foundation within stand. BA swings; 230, 160, 180. (Avg. BA 190)
102	4126 - White, Black, N. Pin Oak	Poletimber Well	9.5	62	81-110	Two-aged stand with oak sawlogs in the overstory and a red maple understory.

S	Gladwin Mgt. Unit			Report 7	– Forested	Stands Compartment: 3 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	4126 - White, Black, N. Pin Oak	Sawtimber Medium	29.1	98	1-50	Shelterwood harvest 2006. Arnold Road Oak, 73-027-03-01. Residual oak BA, 42 sq. ft. 62 sq. ft. of maple, aspen and marked oak removed in 2006 harvest. Understory is heavy to maple with aspen and oak mixed in. Possible Rx burn to control red maple regeneration and stimulate the oak. Kotar habitat classification is PArVVb. Cored two Black/Red Oak trees both core samples show residual trees responded to shelter wood harvest with increased growth.
104	6120 - Lowland Cedar	Poletimber Well	6.5	108	81-110	The stand is low and wet with mucky soils.
105	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	13.4	89	81-110	Stand is pretty wet and influenced by a beaver dam to the north east. Manage with stand 103 and 102. Harvest as much of this stand when adjacent stands are treated.
106	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	13.4	50	1-50	Shelterwood harvest 2005. Oak Interchange, 73-011-01-01. All aspen, red maple, birch and green painted oak and red pine were cut. Residual BA is 45 sq ft of pole sized mixed oak and red pine. Regeneration is a mix of O3/M3/A3. Some residual blow down. Over story not mature enough for removal, red pine is responding to harvest.
107	4136 - Aspen, Mixed Conifer	Poletimber Well	21.9	37	81-110	Stand is wet in the spring. Lower site.
108	4130 - Aspen	Poletimber Well	54.3	41	111-140	Clear-cut 1977. Moving along very good. All red pine was left in 1977 harvest. Residual red pine has added diversity to the stand. Scattered red pine was planted in 1939. When stand is cut leave all red pine, residual red pine did not affect regeneration.
109	42110 - Planted Red Pine	Poletimber Well	22.2	61	111-140	Thinned (second thinning) 2012. Halfmoon Pine 73-022-10-01. Residual red pine BA, 100 sq. ft. First thinning (third row) was in 1994.
110	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	8.5	85	81-110	Low wet stand, to wet for commercial harvest.
111	4130 - Aspen	Sapling Well	14.2	6	Immature	Clearcut 2012. Halfmoon Hardwood 73-004-10-01.
112	4199 - Other Mixed Upland Deciduous	Sawtimber Well	19.9	90	51-80	Selection harvest 2012. Halfmoon Hardwood, 73-004-10-01. Residual BA, 64 sq. ft. 46 sq. ft. was removed. The first selection harvest was in 1993. Forest Road Thinning, 73-027-92-01.
113	42110 - Planted Red Pine	Poletimber Well	2.4	62	171-200	
114	6132 - Mixed Lowland Forest with Cedar	Poletimber Poor	7.8	24	1-50	Stand is in a depression. To wet for commercial harvest.
115	4112 - Maple, Beech, Cherry Association	Sawtimber Well	29.1	90	51-80	Selection harvest 2014. Halfmoon Hardwood 73-004-10-01. Residual BA, 63 sq. ft. 51 sq. ft. was removed. Stand had first selection harvest in 1981.

S	Gladwir	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 3 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
116	4131 - Aspen, Oak	Poletimber Well	43.8	56	111-140	High quality mature aspen stand with fair amount of big diameter oak mixed in. Heavy soils. Stand boarders county road with homes directly adjacent to stand. Inclusion of Q type located within the south central area of stand, this should be painted out when harvested.
117	4130 - Aspen	Poletimber Well	38.2	27	1-50	Clear-cut 1991. Shortcut, 73-029-90-01. Scattered wet pockets.
119	4130 - Aspen	Poletimber Well	44.1	42	111-140	Clear-cut 1976 - all red pine was left. Scattered red pine was planted in 1939. When cut consider leaving red pine again - red pine residual did not affect regeneration.
120	4133 - Aspen, Mixed Pine	Poletimber Well	26.3	42	111-140	Clear-cut 1976 - all red pine was left. Residual red pine has increased diversity within the stand. Red pine was planted in 1939 and is in pockets for the most part. When cut consider leaving some red pine.
121	4123 - Red Oak	Sawtimber Well	32.1	95	51-80	Selection harvest 8/2014. Cornwell Harvest 73-001-13-01. Residual BA, 70 sq. ft. Regen holes were created. Decent quality red oak. Lots of species diversity here. Scattered red pine pockets planted in 1939. Witch hazel in understory.
122	4126 - White, Black, N. Pin Oak	Sawtimber Poor	24.0	94	1-50	Shelterwood harvest 2006. Arnold Road Oak, 73-027-03-01. Residual oak BA, 23 sq. ft. 67 sq. ft. of maple, aspen and marked oak removed in 2006 harvest. Understory is heavy to aspen with maple and oak mixed in. Possible Rx burn to control aspen, red maple regeneration and stimulate the oak.
123	4123 - Red Oak	Sawtimber Medium	13.1	77	51-80	Selection harvest 08/2014. Cornwell Harvest 73-001-13-01. Residual BA, 70 sq. ft. Species diversity was maintained with past harvest. Very nice red oak - high quality sawlogs. Heavy to red oak with red maple and n. pin oak mixed in. Survey corner at NW corner of stand is in, I found no corner to the south.
124	4126 - White, Black, N. Pin Oak	Poletimber Well	7.7	86	81-110	
126	4130 - Aspen	Poletimber Well	33.2	56	111-140	Mature aspen stand. Several wet pockets within stand that need to painted out when harvested, leave buffer around wet areas to meet retention guidelines. The best (possible only place) for landing is in adjacent grass stand to the west (stand 411)
127	4130 - Aspen	Poletimber Well	21.6	36	51-80	
130	42110 - Planted Red Pine	Poletimber Well	12.3	61	111-140	Thinned (second thinning) 2012. Halfmoon Pine 73-022-10-01. Residual red pine BA, 91 sq. ft. First thinning (third row) was in 1994.
131	42110 - Planted Red Pine	Poletimber Well	6.6	61	111-140	Thinned (second thinning) 2012. Halfmoon Pine 73-022-10-01. Residual red pine BA, 100 sq. ft. First thinning (third row) was in 1994.

S t	Gladwin Mgt. Unit			Report 7	- Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
132	4119 - Mixed Northern Hardwoods	Poletimber Well	29.9	90	51-80	Selection harvest 2012. Halfmoon Hardwood 73-004-10-01. Residual BA, 66 sq. ft. 51 sq. ft. was removed. First selection harvest was in 1993. Forest Road Thinning, 73-027-92-01. Scattered wet pockets within stand.
133	4130 - Aspen	Poletimber Well	22.9	27	1-50	Clear-cut 1991. Forest Road Clear-cut, 73-004-91-01.
134	4130 - Aspen	Poletimber Well	13.2	56	111-140	High quality mature aspen stand. Heavy soils. Stand boarders county road.
135	4199 - Other Mixed Upland Deciduous	Poletimber Well	3.3	86	1-50	Shelterwood harvest 2006. Oak Interchange, 73-011-01-01. All but live oak and some scattered pole/sapling red and white pine was cut. Residual BA is 30 sq ft of oak. Regeneration is heavy to aspen.
137	4131 - Aspen, Oak	Sapling Well	25.5	4	Immature	Clear-cut with reserves. 8/2014. Cornwell Harvest, 73-001-13- 01
138	4129 - Mixed Oak	Sawtimber Well	4.6	92	81-110	Upland stand that is an island surrounded by marsh. No access.
140	4126 - White, Black, N. Pin Oak	Sawtimber Medium	32.1	94	1-50	Shelterwood harvest 2006. Arnold Road Oak, 73-027-03-01. Residual oak BA, 35 sq. ft. 55 sq. ft. of maple, aspen and marked oak removed in 2006 harvest. Understory is heavy to aspen with maple and oak mixed in. Possible Rx burn to control aspen, red maple regeneration and stimulate the oak.
142	4199 - Other Mixed Upland Deciduous	Poletimber Well	26.7	33	1-50	Seed tree harvest 1985 - 20 sq ft of residual seed tree oak from 1985 harvest. Do not remove overstory - poor quality wolf trees. Good mix of regeneration.
145	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	13.3	101	81-110	Stand is part of low drainage system.
146	4130 - Aspen	Poletimber Well	3.9	56	81-110	Mature aspen stand. Wet pockets within stand that need to painted out when harvested, leave buffer around wet areas to meet retention guidelines. Manage with stand 124.
148	4130 - Aspen	Sapling Well	8.5	13	Unspecified	Clear-cut 2005. Cornwell Harvest, 73-007-05-01. Excellent regeneration.
149	4130 - Aspen	Poletimber Well	26.4	27	1-50	Clear-cut 1991. Shot-holes 73-036-90-01. Fair amount of mature oak left mainly along the west line.
150	4199 - Other Mixed Upland Deciduous	Poletimber Well	22.5	45	81-110	Clear-cut 1973. Very nice mix of natural regeneration. Decent oak mixed in.

S t	Gladwin	Gladwin Mgt. Unit			Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
151	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	131.3	79	51-80	Selection harvest 08/2014. Cornwell Harvest, 73-001-13-01. Residual BA, 70 sq. ft. Species diversity was maintained. When marked the focus was to remove as many multi stem red maples as possible and release red pine and red maple crop trees. Regeneration gaps (100' diameter) were also created, 1 per every 3 - 4 acres. Red pine planted in 1939. Red maple sawlogs mixed in - red maple understory that is reaching pole size. Pockets of pure red maple and pockets of dense red pine. 18" DBH 90' to 100' tall red pine all over the place. Co-domimate red maple is 73 yrs old (core samples).
152	4130 - Aspen	Poletimber Well	23.9	32	51-80	Clear-cut 1986. Horseback Sale, 73-083-83-01.
154	4130 - Aspen	Poletimber Well	7.6	42	111-140	Clear-cut 1976. Scattered residual red pine planted in 1939. Narrow strip between n/s two track and private that was not cut in 1976, this narrow strip has big diameter timber. Leave all pine when cut. Survey corners are in.
155	42110 - Planted Red Pine	Poletimber Well	160.4	59	111-140	Thinned 08/2014. Cornwell Harvest, 73-001-13-01. Residual BA, 120 sq. ft. All mixed hardwood left. Red pine planted in 1959, third row thinned in 1995, all hardwood left in 1995 thinning. Stand has understory of red maple in places, mixed hardwood mixed in most of the mixed hardwood is in the north half of stand. South half of stand is more of a pure red pine stand. Continue to manage as a red pine planation.
156	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	28.3	45	81-110	Clear-cut 1973. Lots of red maple stump sprouts. Inclusion of small strip of red pine.
157	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	18.5	34	51-80	Clear-cut 1984. Inclusion of a small red pine pocket within stand
161	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	3.6	141	81-110	Very wet stand, to wet for commercial harvest.
162	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	37.4	13	Immature	Clear-cut 2005. Cornwell Harvest, 73-007-05-01. Followed by inter-planting to red pine. Red pine has hardwood competition. Moving into a mixed hardwood/red pine stand.
163	4134 - Aspen, Spruce/Fir	Poletimber Well	5.4	59	111-140	Stand is on a slight knob surrounded by Q-type and marsh. Also borders County Road. Access is an issue as the county road has a decent sized ditch and stand is elevated above the road. Small acers and barley enough room for a landing.
164	4130 - Aspen	Poletimber Well	25.0	44	111-140	Clear-cut in 1974. Scattered wet pockets.
166	6113 - Lowland Maple	Poletimber Poor	9.6	58	51-80	Wet site. Scattered mixed hardwood. Inclusion of small pockets of lowland brush. Very wet stand along county road. Dead ash standing and falling down. To wet for commercial harvest.
167	4130 - Aspen	Poletimber Well	66.8	43	111-140	Clear-cut 1975 - excellent growth and quality.

S t	Gladwin Mgt. Unit			Report 7	– Forested	Stands Compartment: 3 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
168	42110 - Planted Red Pine	Poletimber Well	13.4	59	81-110	Thinned 08/2014. Cornwell Harvest, 73-001-13-01. Residual BA, 110 sq. ft. All mixed hardwood left. Red pine planted in 1959, third row thinned in 1995, all hardwood left in 1995 thinning. Stand has understory of red maple in places, mixed hardwood mixed in. Continue to manage stand as red pine plantation.
170	4130 - Aspen	Poletimber Well	85.5	25	1-50	Clear-cut 1993. South of Cornwell, 73-052-90-01. Excellent aspen regeneration.
171	4130 - Aspen	Sapling Well	82.7	14	Unspecified	Clear-cut 2004. Excellent aspen regeneration. #1 Aspen, 73-001-04-01.
172	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	9.1	62	81-110	Red pine inter-planted in 1956. Lots of hardwood mixed in as well. Adjacent stands are being managed for aspen and have been clearcut. Access is an issue with this stand. Stand is on a nob. No treatment maintain for species diversity at this time.
174	4123 - Red Oak	Poletimber Well	14.2	46	51-80	Red oak stump sprouts.
176	4130 - Aspen	Sapling Well	39.7	4	Immature	Clear-cut 2014, Comp 2 North 73-021-13-01. Access was through Roscommon County.
177	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	12.5	74	Unspecified	Wet site. To wet for commercial harvest.
178	6113 - Lowland Maple	Sapling Well	5.3	24	Immature	The stand has been heavily impacted by beaver activity.
374	4130 - Aspen	Sapling Well	118.5	6	Immature	Clear-cut 2012. OT Aspen, 73-011-10-01. This stand was originally part of stand 74. This area of the original stand 74 was harvested early to break up the age class in stand 74. Overall we have excellent aspen regeneration here, a couple of pockets located within the SE area of the stand are a little spares, these areas were red pine pockets when the stand was harvested.



Stand	Cover Type	Acres	Managed Site	General Comments:
2	622 - Lowland Shrub	12.8	No	Willow and tag alder. Scattered swamp hardwoods and swamp conifers.
4	6229 - Mixed lowland shrub	42.1	No	Low, wet stand willow brush, tag alder and leather leaf.
7	6225 - Bog	2.1	No	Scattered tamarack and spruce.
13	622 - Lowland Shrub	29.5	No	Willow, tag alder and scattered swamp hardwoods and swamp conifers.
19	622 - Lowland Shrub	40.2	No	Small isolated pockets of timber (aspen)
25	500 - Water	102.1	No	Townline Creek Flooding Area.
27	500 - Water	20.8	No	Townline Creek Flooding Area.
32	6229 - Mixed lowland shrub	5.9	No	Stand has pockets of N along US 27 but it is mainly tag alder and willow.
40	6239 - Mixed Emergent Wetland	16.3	No	Stand is influenced by beaver activity. Lots of diversity here, pockets of dead standing/falling timber, marsh grass, lowland shrub's and water.
47	622 - Lowland Shrub	1.9	No	
48	6225 - Bog	3.2	No	Blueberry leatherleaf bog.
49	500 - Water	2.1	No	
50	6239 - Mixed Emergent Wetland	149.5	No	Townline Creek Flooding Areas.
52	622 - Lowland Shrub	1.9	No	
53	6239 - Mixed Emergent Wetland	34.1	No	Townline Creek Flooding Area.
76	500 - Water	0.9	No	Stand is in a depression and holds water.
80	6239 - Mixed Emergent Wetland	25.1	No	Influenced by beavers.
86	500 - Water	6.3	No	
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Stand	Cover Type	Acres	Managed Site	General Comments:
91	3102 - Grass	15.9	No	Transmission line. Includes some low wet areas.
94	622 - Lowland Shrub	8.3	No	Tag alder and willow.
118	6239 - Mixed Emergent Wetland	42.6	No	Influenced by beaver. Pockets of water, cattails, marsh grass, tag alder, small pockets of timber.
125	6239 - Mixed Emergent Wetland	15.3	No	
128	6239 - Mixed Emergent Wetland	20.3	No	Influenced by beaver. A mix of water, cattails, marsh grass, tag alder, willow.
141	3102 - Grass	1.4	No	
144	6239 - Mixed Emergent Wetland	5.1	No	
153	6225 - Bog	12.2	No	
158	6225 - Bog	11.1	No	
159	500 - Water	1.1	No	
160	6225 - Bog	2.8	No	
165	3102 - Grass	1.7	No	Scattered mature apple trees.
169	6229 - Mixed lowland shrub	12.6	No	
400	3102 - Grass	6.0	No	Maintained wildlife opening.
402	3102 - Grass	6.6	No	Maintained wildlife opening.
403	3102 - Grass	3.8	No	
404	3102 - Grass	3.7	No	Maintained wildlife opening.
405	3102 - Grass	2.6	No	Maintain wildlife opening.
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Stand	Cover Type	Acres	Managed Site	General Comments:
406	3102 - Grass	1.5	No	Maintained wildlife opening.
407	3102 - Grass	1.4	No	Maintained wildlife opening.
409	3102 - Grass	1.0	No	Old township dump.
410	3102 - Grass	4.6	No	Maintain wildlife opening.
411	3102 - Grass	9.6	No	Maintained wildlife opening.
413	3102 - Grass	1.3	No	Old landing. Nice little grass stand.
417	3102 - Grass	3.6	No	Old oil well site. Used to store old tires.