

# **Compartment Review Presentation**

**Gwinn Forest Management Unit** 

Compartment 32274 Entry Year 2019 Acreage: 1,790

County Marquette

**Management Area: Sands Plains** 

Revision Date: 2017-08-08 Stand Examiner: Rick Hill

**Legal Description:** 

T47N, R24W sec18, T47N R25W sec 13, 14,15, 23, 24, 25, 26, and 36.

#### **Identified Planning Goals:**

Management in the Sands Plains management area (MA) (Figure 4.32.1) will provide a variety of forest products; maintain or enhance wildlife habitat; protect areas with unique characteristics; and provide for forest based recreation.

## Soil and topography:

Soils are sands to loamy sands. The topography ranges from level to undulating to hilly with some steep slopes.

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

This compartment is surrounded by corporate and other private ownerships. Land use is primarily for forest production, recreation, and residential use.

## **Unique Natural Features:**

The Cherry Creek headwaters form in this compartment.

## Archeological, Historical, and Cultural Features:

There are no known sites.

#### **Special Management Designations or Considerations:**

The Cherry Creek headwaters form in this compartment, as this stream is the location of a state fish hatchery stream buffers here are managed for water quality.

## **Watershed and Fisheries Considerations:**

Fisheries Values: Excellent

Fisheries Concerns: Cherry Creek is located throughout this compartment and is also a designated trout stream. All stands where the creek is located already have hard factors placed on them for water quality protection due to the Marquette State Fish Hatchery downstream. Cedar Creek and Peterson Creek are also located within the southern portions of this compartment. Both are designated trout streams and appear to have hard factors for water quality already placed in stands where the creek is present.

#### Wildlife Habitat Considerations:

Compartment 274 is found within the Sands Plains Management Area is on an Outwash Plain in central Marquette County. The dominant Natural Communities are dry mesic northern forests and dry northern forests. Wildlife considerations in this Management Area include increasing stand size and striving to accommodate many species associated with xeric forest habitat such as Kirtland's warbler, upland sandpiper, black backed woodpecker, eastern bluebird, and spruce grouse. Wildlife management issues in the management area are: large open land complexes; habitat fragmentation; mature forest (jack pine, black and white spruce and tamarack); and early successional forest.

The following have been identified as featured species for the Sands Plains Management Area: Kirtland's warbler, spruce grouse, and upland sandpiper.

#### Mineral Resource and Development Concerns and/or Restrictions

Section 18, T47N R24W and Sections 13-15, 22-26, & 36, T47N R25W, Marquette County

A gravel pit is located less than two miles to the north, in Sec 2, and there appears to be good sand potential within the compartment (gravel may be limited). There has not been any metallic mineral production within five miles of the compartment and there has not been any significant interest in this area to date, from the perspective of metallic mineral exploration. There is no economic oil and gas production in the UP.

#### **Vehicle Access:**

Main access roads include county road 480, county road NA, and many two tracks that traverse much of the compartment.

the area around the crossroads has all season road frontage and can be cut during spring breakup.

### **Survey Needs:**

Some corner work may be needed for timber sale work. those requests will be submitted after compartment review.

## **Recreational Facilities and Opportunities:**

This compartment is home to the Thunder Valley Horse Trail. Other recreation here includes ORV use on two tracks, trail running, hunting, and fishing.

#### **Fire Protection:**

This stand is on the edge of the sands zone. Road access here is good some of the terrain will be a challenge for mechanized firefighting. Most of the fuel types here will grow at slow to moderate rates and fire resources are located closed by at the Marquette ICC. Wildland urban interface issues will create challenges compartment wide.

#### **Additional Compartment Information:**

This compartment receives heavy use due to its proximity to population centers.

## 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

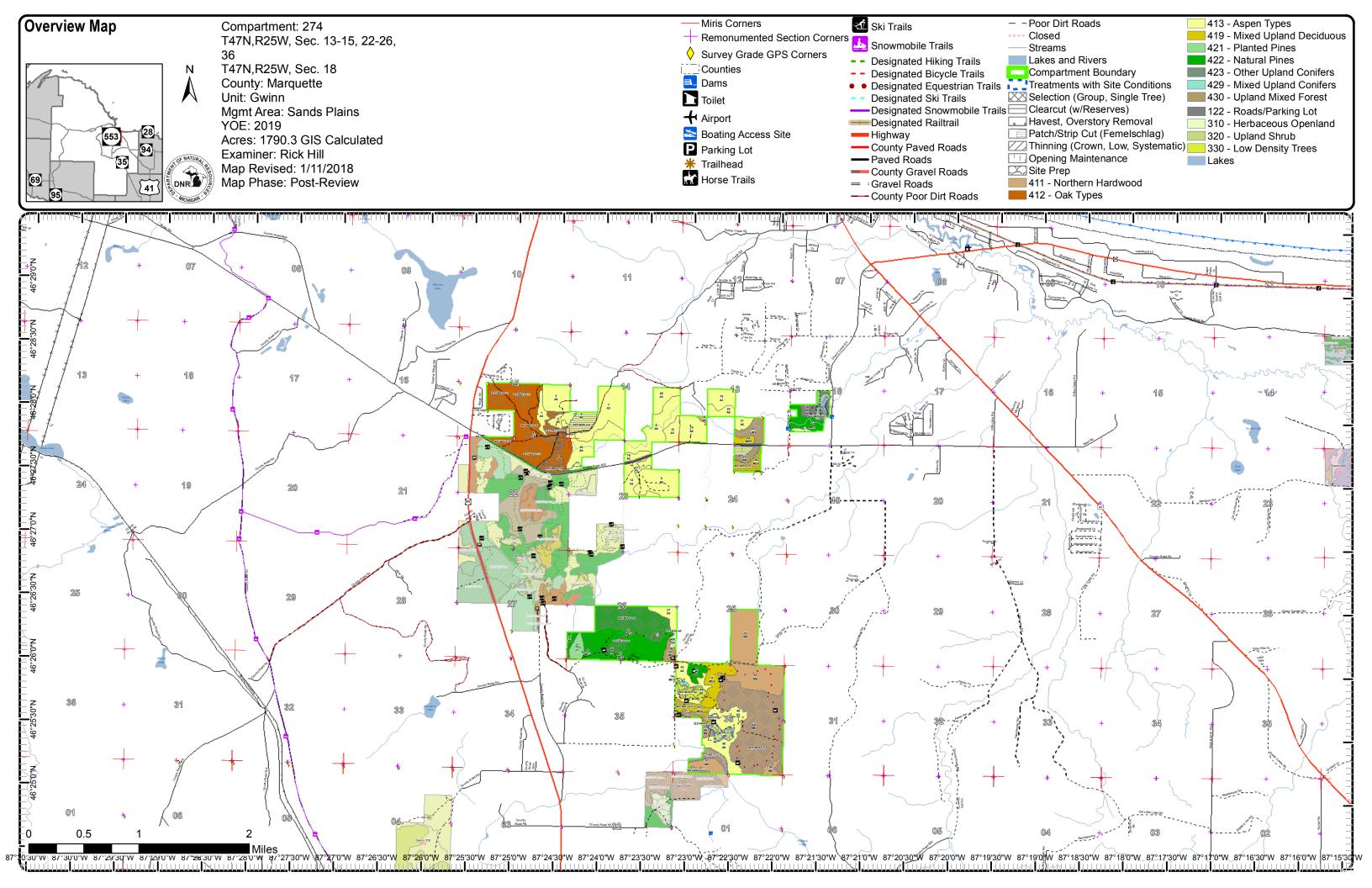
Compartment 274 Year of Entry 2019

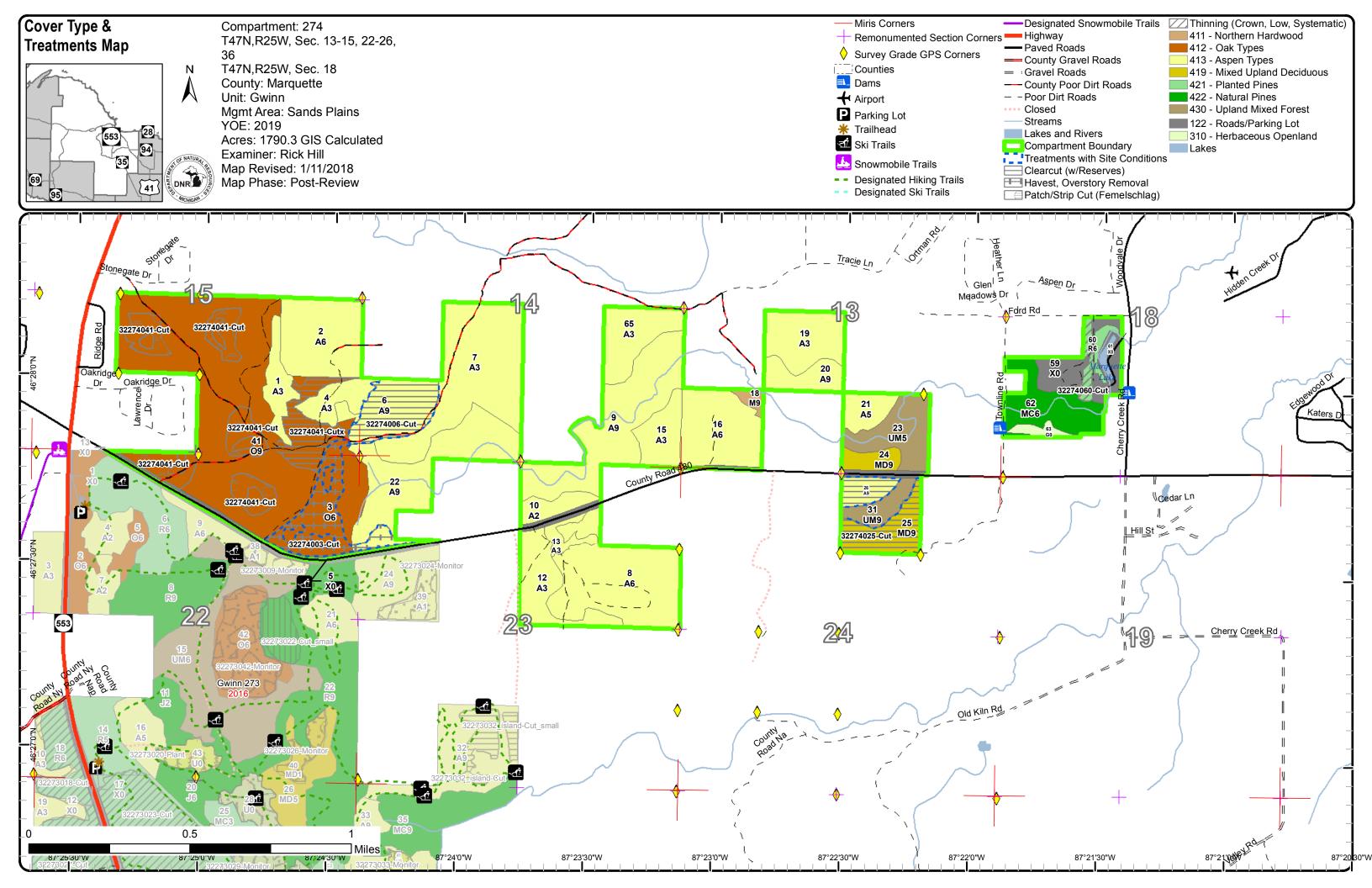
Gwinn Mgt. Unit Rick Hill : Examiner

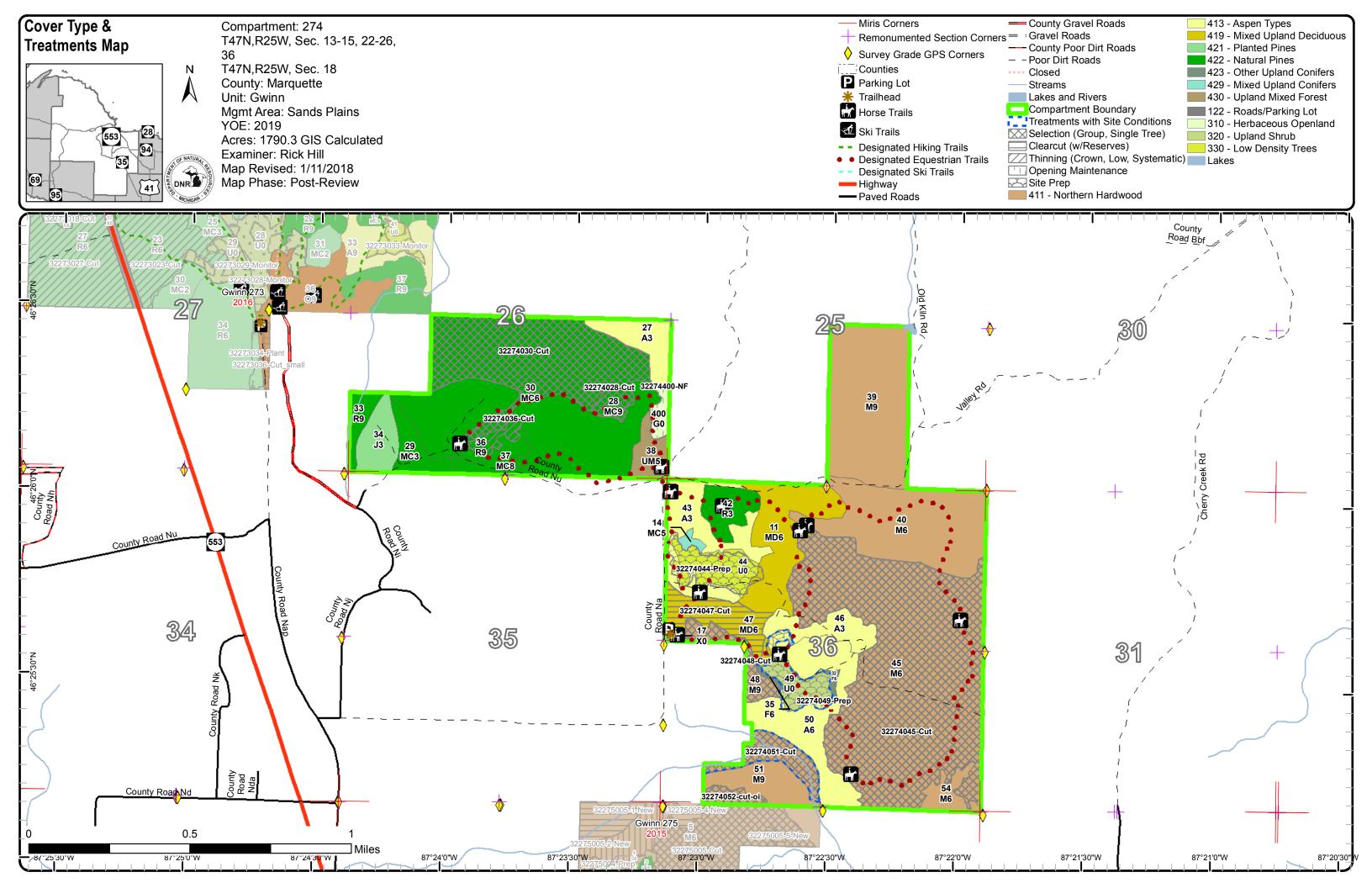


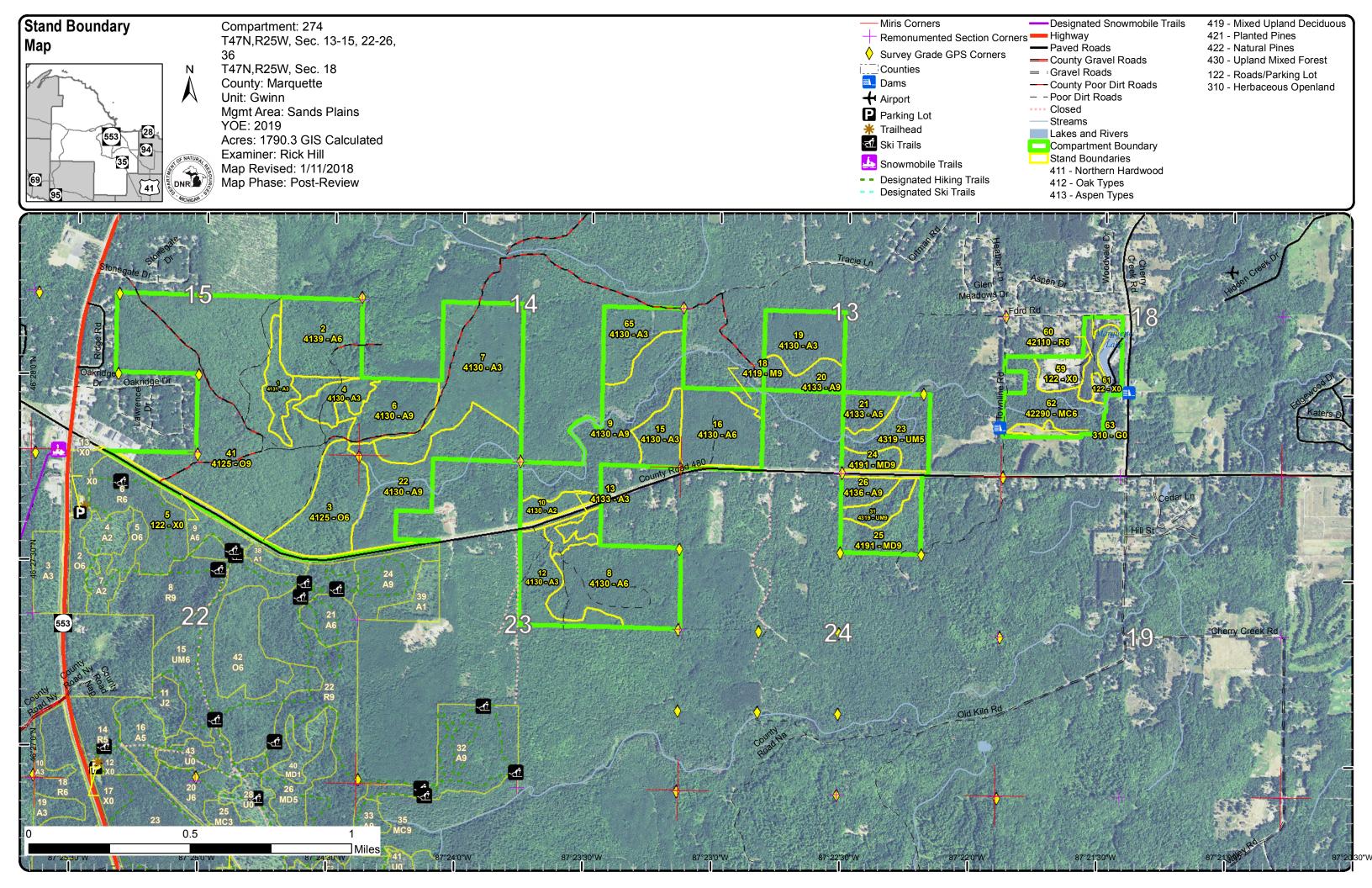
## Age Class

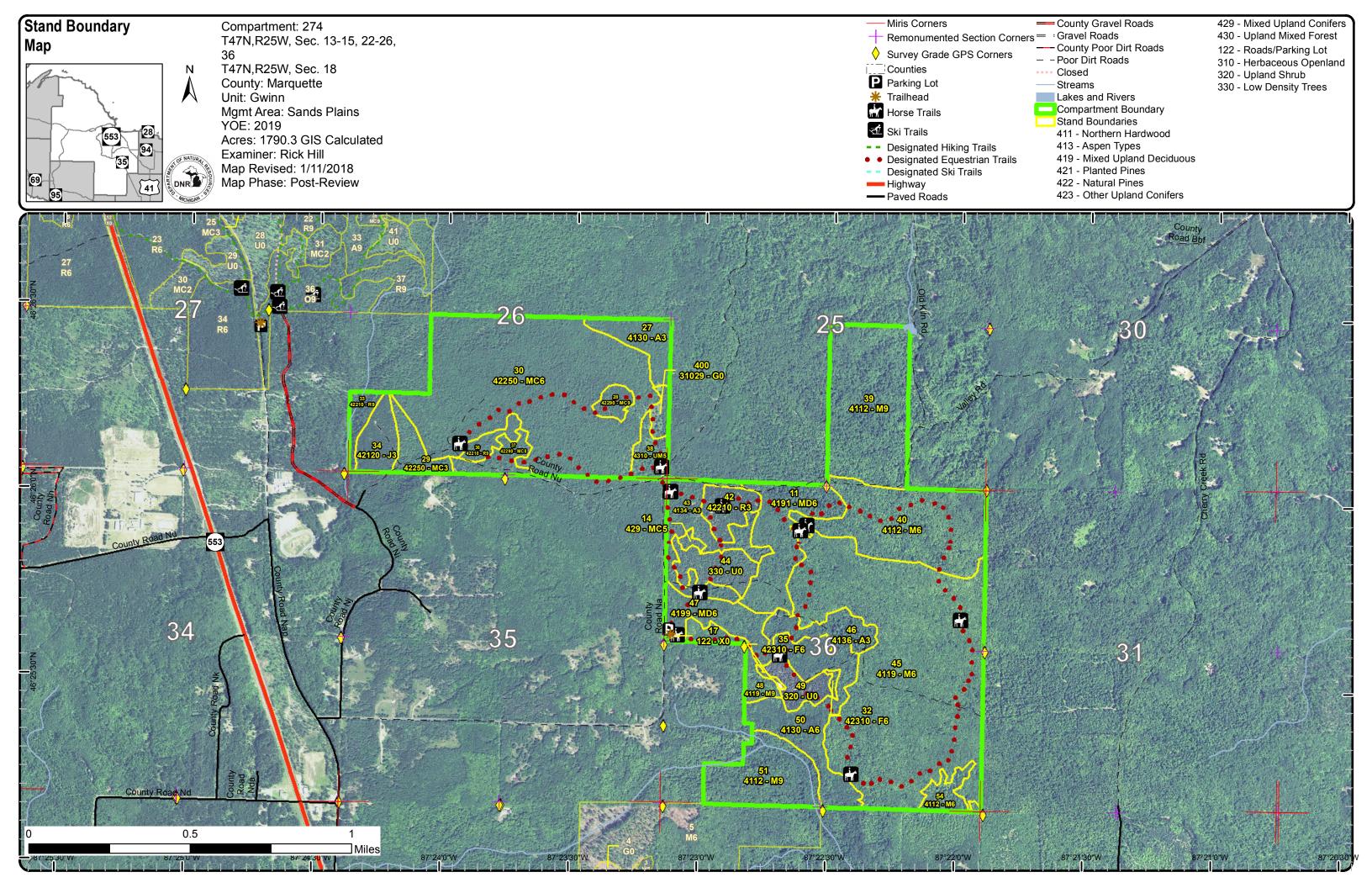
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Aspen	0	38	177	86	0	146	28	0	0	137	11	0	0	0	0	0	0	0	620
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Low-Density Trees	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Mixed Upland Deciduous	0	0	0	0	0	0	22	0	20	7	0	0	0	0	0	0	0	42	91
Natural Mixed Pines	0	0	0	12	0	0	0	33	194	0	0	0	0	0	0	0	0	0	239
Northern Hardwood	0	0	0	0	0	9	0	0	0	3	0	0	0	0	0	0	0	423	435
Oak	0	0	0	0	0	0	0	39	190	0	0	0	0	0	0	0	0	0	229
Red Pine	0	0	0	14	0	0	8	0	8	7	0	0	0	0	0	0	0	0	37
Upland Conifers	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Upland Mixed Forest	0	0	0	0	0	0	0	0	20	23	0	0	0	0	0	0	0	0	43
Upland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Upland Spruce/Fir	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Urban	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Total	77	38	177	127	0	155	62	72	432	177	11	0	0	0	0	0	0	465	1790

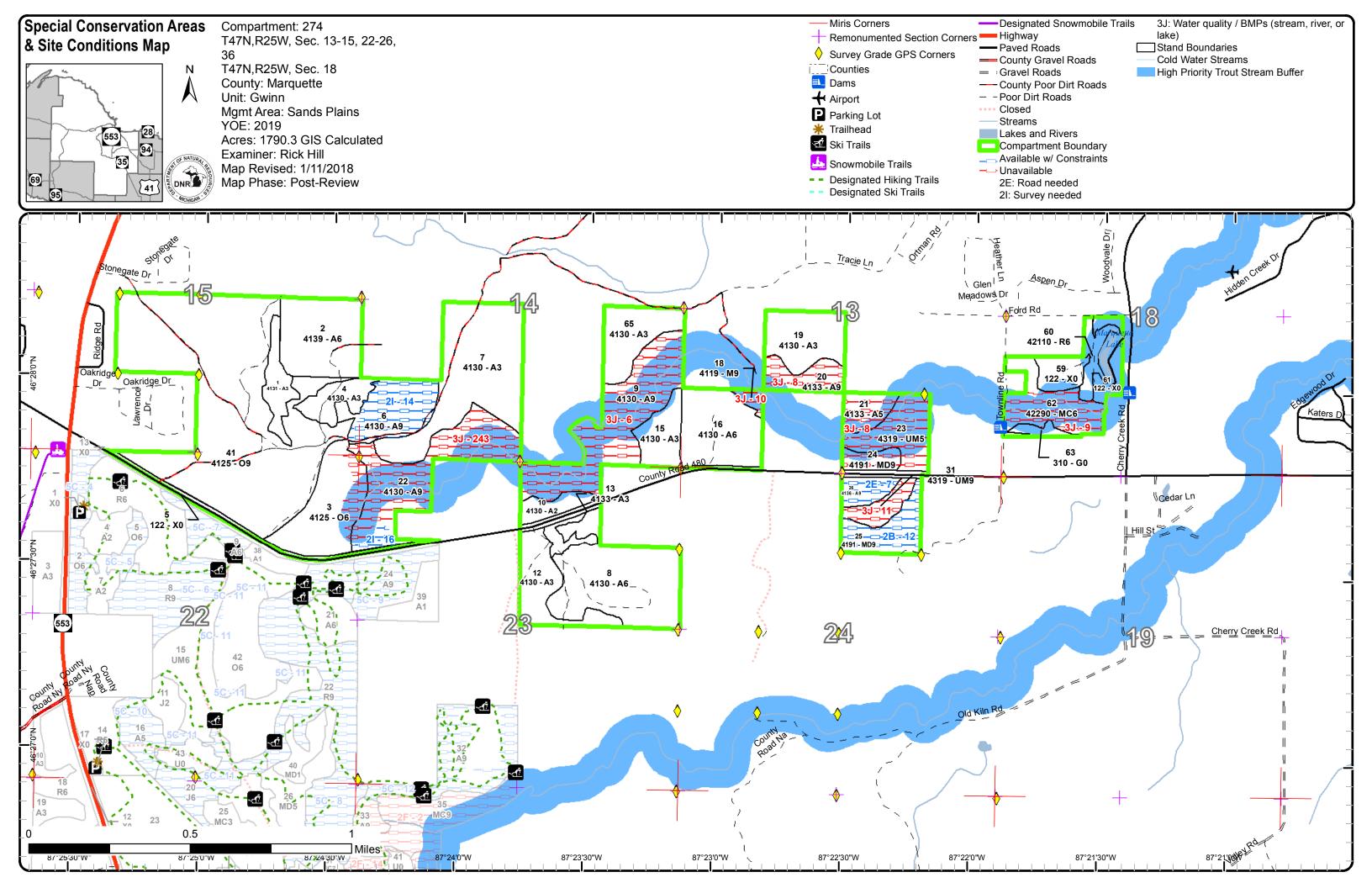


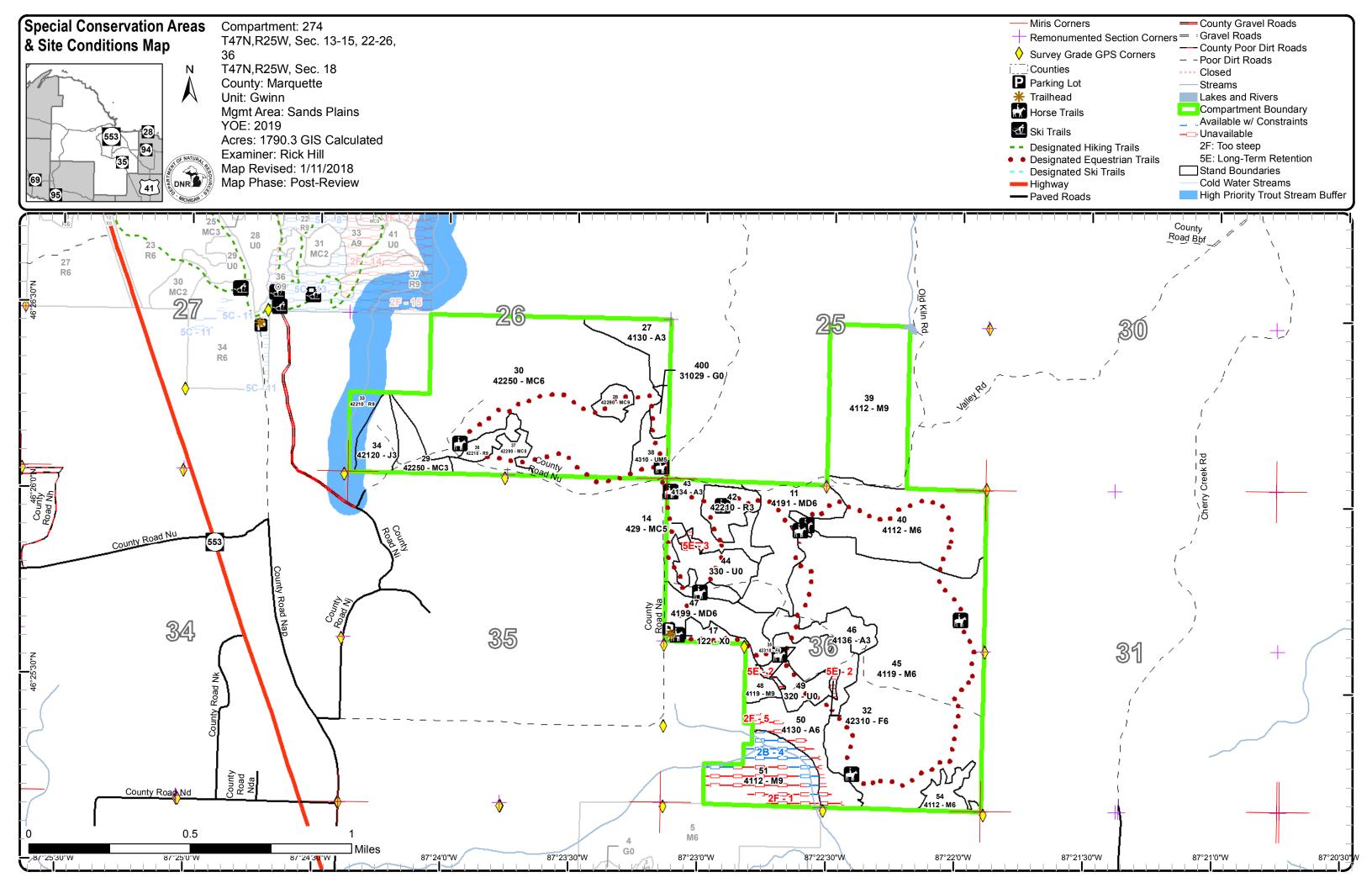














## **Report 2 – Treatment Summary**

Gwinn Mgt. Unit Year of Entry: 2019

**Acres of Harvest** 

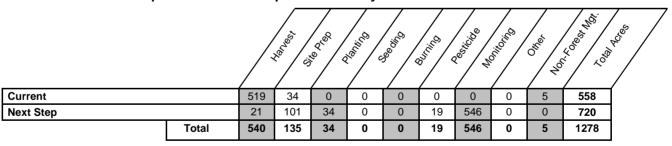
Compartment 274
Total Compartment Acres: 1,790

Commercial Harvest - 423 Harvests with Site Condition - 96 Next Step Harvest - 21 Habitat Cut - 21

## **Cover Type by Harvest Method**

	,	. ,										
		/		10 10 10 10 10 10 10 10 10 10 10 10 10 1			DOM SHOW	Single Soot	Key Cor	85 P		
Aspen		34	0	0	0	0	0	0	0	0	34	
Mixed Upland Deciduous		41	0	0	0	0	0	0	0	0	41	
Natural Mixed Pines		0	101	0	0	0	0	0	0	0	101	
Northern Hardwood		0	254	0	0	0	0	0	0	0	254	
Oak		19	0	38	0	0	0	27	0	0	85	
Red Pine		0	0	0	0	0	5	0	0	0	5	
	Total	94	354	38	0	0	5	27	0	0	519	

## **Proposed and Next Step Treatments by Method**



Compartment: 274
Year of Entry: 2019

DNR MICHIGAN

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
3	32274003-Cut	27.4 412	25 - Black, N. Pin Oak	Poletimber Well	67	1-50	Harvest	Overstory Removal	412 - Oak Types	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition: Survey Needed

Prescription Remove the overstory to release advanced oak regen. exclude areas with heavy contractions of good looking aspen regeneration to avoid

damage. Leave a few pockets of oak (around 3 acres total) for within stand retention, wildlife and seed.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Oak, aspen, maple, mixed pine

Regen:

Other Make sure to use a regeneration protection spec.

Comment

WLD - Ensure pockets of Oak are at least 1 acre each, and retain all White Pine (2%) (white-tailed deer, black bear)

Proposed Start Date: 10/01/2018

6 32274006-Cut 25.8 4130 - Aspen Sawtimber 53 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Retention Boundary

Habitat Cut: No Site Condition: Survey Needed

Prescription Cut all trees including trees down to 2 inches at breast height. leave all oak, white pine, hemlock, and red pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable Aspen, mixed hardwood, oak, mixed pine, spruce, fir.

Regen:

Other There is a wet ravine if possible operationally this area should be the retention area for the treatment.

Comment:

WLD - Look for opportunities to retain some Big Tooth Aspen (cavity nesters and raptors)

Proposed Start Date: 10/01/2018

25 32274025-Cut 19.6 4191 - Mixed Sawtimber 76 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Upland Deciduous Well Retention Boundary

with Conifer

Habitat Cut: No Site Condition: Unknown Access

Prescription Cut all trees except red pine, white pine, hemlock, oak and cedar. Leave a 300 foot buffer to the creek.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, mixed hardwood, mixed conifer.

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

26 32274026-Cut 8.3 4136 - Aspen, Sawtimber 81 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Mixed Conifer Well Retention Boundary

xed Corliner Well

Habitat Cut: No Site Condition: Road Needed

<u>Prescription</u> Cut all trees except for red pine, white pine, hemlock and cedar. buffer creek by at least 300 feet.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, mixed hardwood, mixed conifer.

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

Compartment: 274 Year of Entry: 2019

n	Treatment	Acres	Stand	Size	Stand	BA	Treatment	Treatment	Cover Type	Age	Approval
d	Name		CoverType	Density	Age	Range	Type	Method	Objective	Structure	Status
28	32274028-Cut	6.1	42290 - Natural Mixed Pine	Sawtimber Well	61	81-110	Harvest	Group Selection	429 - Mixed Upland Conifers	Two-Aged	Draft Field Boundary

**Site Condition: Habitat Cut: No** 

Prescription Release pockets of advanced white pine regeneration. Cut all aspen and jack pine on site. Leave most of the oak, mark for removal create gaps Specs:

large (100 foot) gaps for red and white pine regen. Target Residual BA should be about 70 sf.

SitePrep, Scarification; Monitoring, Natural Regen (Re-Inventory) Next Step

**Treatments:** 

Acceptable White pine, red pine, oak, jack pine.

Regen:

Other If possible attempt to scarify gaps.

Comment:

**Proposed Start Date:** 10/01/2018

75 30 32274030-Cut 94.5 42250 - Pine, Oak Poletimber 81-110 Harvest **Group Selection** 429 - Mixed Two-Aged Draft Field Well **Upland Conifers** Boundary

**Habitat Cut:** No **Site Condition:** 

Prescription Release pockets of advanced white pine regeneration. Cut all aspen and jack pine on site. Leave most of the oak, mark for removal create gaps

large (100 foot) gaps for red and white pine regen. Target Residual BA should be about 70 sf. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory): SitePrep, Scarification

**Treatments:** 

Acceptable White pine, red pine, oak, jack pine.

Regen:

If possible attempt to scarify gaps. Other

Comment:

WLD - Add retain all hemlock (3%) and favor the few Bigtooth Aspen in the compartment (white-tailed deer, black bear, cavity nesters)

10/01/2018 Proposed Start Date:

32274036-Cut 42210 - Natural 85 141-4319 - Mixed Draft Field 5.3 Sawtimber Harvest Crown Thinning Even-Aged Red Pine Well 170 **Upland Forest** Boundary

**Site Condition: Habitat Cut: No** 

Prescription Mark to allow operability, remove poor quality trees, and improve spacing.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other WLD - Retain all Red Oak, except those marked for operation (10%) and Hemlock (4%) (white-tailed deer, black bear)

Comment:

**Proposed Start Date:** 10/01/2018

41 32274041-Cut 38.0 4125 - Black, N. Pin Sawtimber 81-110 Harvest Strip/Patch/Gap 412 - Oak Types Even-Aged Draft Field Oak Boundary Well Cut

(Femelschlag)

**Habitat Cut: No Site Condition:** 

Prescription Clear-cut patches leaving only red and white pine. Leave a pocket (about 1 acre) in the middle of the patches wildlife, within stand retention, and

Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

**Treatments:** 

Acceptable Northern pin oak, red oak, white pine, red pine, mixed aspen, jack pine.

Regen:

Other If oak regen fails trench and plant to red or jack pine.

Comment:

**Proposed Start Date:** 10/01/2018

Compartment: 274 Year of Entry: 2019

DNR
Approval

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
41	32274041- Cutx	19.4 41	25 - Black, N. Pin Oak	Sawtimber Well	77	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary

**Site Condition: Habitat Cut: No** 

Prescription This portion of the stand has more aspen then the rest of the stand and should sprout back well when clearcut. leave approx. 10-20 sf of oak and Specs:

pine where possible. Leave retention around steep areas.

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable Aspen, Mixed hardwood, mixed oak, mixed pine.

Regen:

Other If regeneration fails consider planting jack or red pine.

Comment:

WLD - Western side of sale Retention should include a 1 acre sized pockets of mature Oak left in the stand similar to the prescription for stand 3

and retain all White Pine (3%) (white-tailed deer, black bear)

Northeastern side of sale - Increase retention to 20-30 sq. ft of the Oak and retain all White Pine (3%) (white-tailed deer, black bear)

**Proposed Start Date:** 10/01/2018

32274044-18.8 330 - Low-Density Nonstocked Unspec SitePrep 4211 - Planted Draft Field Trenching Even-Aged Trees ified Red Pine Boundary Prep

**Site Condition: Habitat Cut: No** 

**Prescription** Specs:

; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Next Step

**Treatments:** 

Acceptable Red pine or spruce

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 12/04/2017

45 32274045-Cut 222.0 4119 - Mixed 411 - Northern Draft Field Poletimber 111-Harvest Group Selection Uneven-Northern Hardwoods 140 Well Hardwood Aged Boundary

**Habitat Cut: No Site Condition:** 

Prescription Mark using the complete marker as a guide. Make larger regen gaps to allow for cherry and red maple regeneration. Mitigate effects on trails

Specs: during sale prep.

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable Mixed hardwood, spruce, fir, mixed pine.

Regen:

<u>Other</u> Comment:

**Proposed Start Date:** 10/01/2018

20.9 4199 - Other Mixed Poletimber 47 32274047-Cut 52 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field **Upland Deciduous** Well Retention Boundary

**Habitat Cut: No** 

Prescription Cut all trees, leave all oak, hemlock, red pine, white pine also green tree some birch, and maple. Retention should be placed along the west side

Specs: of the stand to mitigate any green up concerns.

Next Step Harvest, Clearcut with Retention

**Treatments:** 

Acceptable Aspen, Oak, mixed hardwood, spruce, fir, mixed pine

Regen: Other Comment:

**Proposed Start Date:** 10/01/2018 S

Compartment: 274 Year of Entry: 2019



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
48	32274048-Cut	11.8 N	4119 - Mixed Northern Hardwoods	Sawtimber Well	66	111- 140	Harvest	Group Selection	411 - Northern Hardwood	Even-Aged	Draft Field Boundary

**Site Condition: Habitat Cut: No** 

Prescription Mark stand using complete marker as a guide. minimize effects on horse trail during sale prep. some areas may be too steep so treatment may

Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

**Treatments:** 

Acceptable Maple, Oak, mixed pine, birch, spruce, fir

Regen: Other Comment:

**Proposed Start Date:** 10/01/2018

49 32274049-15.1 320 - Upland Shrub Nonstocked Unspec SitePrep Trenching 42330 - Upland Even-Aged Draft Field Boundary Prep

**Habitat Cut: No** Site Condition: Long-Term Retention

**Prescription** Specs:

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

**Treatments:** 

Acceptable Spruce, fir.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 12/04/2017

32274051-Cut 14.8 4112 - Maple, Sawtimber 111-Harvest **Group Selection** 4319 - Mixed Uneven-Draft Field \/\ell 140 **Upland Forest** Aged Boundary Beech, Cherry Association

Site Condition: Unknown Access

Prescription Cut using a selection system create gaps. with a target residual of 80 sq ft. create gaps around black cherry and other intolerant species.

Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

**Habitat Cut: No** 

Acceptable Mixed northern hardwood, spruce, fir. Regen:

Other

the only access to this stand is though adjacent landowner unknown weather he would allow access or not.

Comment:

WLD - Comments for both the North and South treatments in this stand. Retain all Hemlock (5%) and White Pine (4%) (white-tailed deer, black

Hardwoods

bear)

**Proposed Start Date:** 10/01/2018

32274052-cut-Sawtimber 5.2 4112 - Maple, 111-Single Tree 4119 - Mixed Uneven-Field Boundary Harvest Beech, Cherry Well 140 Selection Northern Aged oi

Association

**Site Condition:** Prescription Cut using a selection system, use complete marker as a guide.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

**Habitat Cut: No** 

Acceptable mixed northern hardwood

Regen:

Other Hills and extensive areas of regeneration from blow down will limit the size of this harvest.

Comment:

**Proposed Start Date:** 10/01/2008

Gwinn Mgt. Unit Report 3 -- Treatments Compartment: 274 s Year of Entry: 2019 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Objective Method d Name CoverType Density Age Range Type Structure **Status** Draft Field 32274060-Cut 42110 - Planted Poletimber 141-4211 - Planted 60 5.3 51 Harvest Crown Thinning Even-Aged Red Pine Red Pine Well 170 Boundary **Habitat Cut:** No **Site Condition:** Prescription Thin stand by marking trees of poor form, and trees with defect. target BA is 100Sf. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 10/01/2018 400 32274400-NF 5.0 31029 - Grass (OI) Nonstocked 330 - Low-Draft Field NonForestMgt **Brush Cutting Density Trees** Boundary **Habitat Cut: No Site Condition:** Prescription Maintain opening per WLD spec. Specs:

Next Step

**Treatments:** 

<u>Acceptable</u>

Regen:

Other

Comment:

10/01/2018 **Proposed Start Date:** 

**Total Treatment Acreage Proposed:** 

563.3

Gwinn Mgt. Unit

Rick Hill : Examiner

Compartment: 274
Year of Entry: 2019

Availa	ability for	Managemer	nt							
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Cond	ditions	5	
Acres	Available	With Condition	Not Available		2B	2E	21	2F	3J	5E
622	440	38	144	Aspen		8	30	10	134	
9	9	0	0	Herbaceous Openland						
15	15	0	0	Jack Pine						
17	17	0	0	Low-Density Trees						
91	64	20	7	Mixed Upland Deciduous	20				7	
239	218	0	21	Natural Mixed Pines					21	
435	399	15	22	Northern Hardwood	15			19	3	
228	220	0	8	Oak					8	
36	36	0	0	Red Pine						
2	0	0	2	Upland Conifers						2
43	10	0	33	Upland Mixed Forest					33	
11	0	0	11	Upland Shrub						11
2	0	0	2	Upland Spruce/Fir						2
40	40	0	0	Urban			0			
1,790	1,468	72	250	Total Forested Acres	34	8	30	29	206	15
	82%	4%	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.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2F: Too steep	19	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
2	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 4 – Site Conditions

Gwinn Mgt. Unit

Compartment: 274 Year of Entry: 2019 Rick Hill: Examiner

Comme	navailable nents: navailable	2F: Too steep  3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified  2F: Too steep	Unspecified Unspecified	Unspecified	Unspecified
Comme	nents:	3J: Water quality / BMPs				`	Unspecified
6 Una	navailable		61	2F: Too steep	Unspecified		
Comme			61	2F: Too steep	Unspecified		
	ents:					Unspecified	Unspecified
7 A							
	Available	2E: Road needed	8	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comme	ents:						
3 Una	navailable	3J: Water quality / BMPs (stream, river, or lake)	55	2F: Too steep	Unspecified	Unspecified	Unspecified
Comme	ents:						
) Una	navailable	3J: Water quality / BMPs (stream, river, or lake)	21	2F: Too steep	Unspecified	Unspecified	Unspecified
Comme	ents:						

# Report 4 – Site Conditions

Gwinn Mgt. Unit Rick Hill : Examiner Compartment: 274 Year of Entry: 2019

mments: Unavailable mments:	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	
		10	Unspecified	Unspecified	Unenceified	.,
mments:				- 4	Onspecilled	Unspecified
Available	2B: Unknown if access through adjacent landowner(s) is possible	20	2E: Road needed	Unspecified	Unspecified	Unspecified
mments:						
Available	2I: Survey needed	26	Unspecified	Unspecified	Unspecified	Unspecified
mments:						
Available	2I: Survey needed	4	Unspecified	Unspecified	Unspecified	Unspecified
mments:						
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	57	2F: Too steep	Unspecified	Unspecified	Unspecified
nments:		_				
<u> </u>	Available nments:  Available nments:	through adjacent landowner(s) is possible ments:  Available 2I: Survey needed ments:  Available 2I: Survey needed ments:  Unavailable 3J: Water quality / BMPs (stream, river, or lake)	through adjacent landowner(s) is possible  ments:  Available 2I: Survey needed 26  ments:  Available 2I: Survey needed 4  ments:  Unavailable 3J: Water quality / BMPs (stream, river, or lake)	through adjacent landowner(s) is possible  nments:  Available 2I: Survey needed 26 Unspecified  nments:  Available 2I: Survey needed 4 Unspecified  nments:  Unavailable 3J: Water quality / BMPs 57 2F: Too steep (stream, river, or lake)	through adjacent landowner(s) is possible  Available 2I: Survey needed 26 Unspecified Unspecified  Available 2I: Survey needed 4 Unspecified Unspecified  Available 2I: Survey needed 4 Unspecified Unspecified  Available 3J: Water quality / BMPs (stream, river, or lake)  57 2F: Too steep Unspecified	through adjacent landowner(s) is possible  Available 2I: Survey needed 26 Unspecified Unspecified Unspecified  Available 2I: Survey needed 4 Unspecified Unspecified Unspecified  Available 2I: Survey needed 4 Unspecified Unspecified Unspecified  Imments:  Unavailable 3J: Water quality / BMPs 57 2F: Too steep Unspecified Unspecified

Mgt. Unit

Compartment: #Type! Year of Entry:

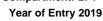


## Report 5 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* 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				

Gwinn Mgt. Unit Compartment: 274





# 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.

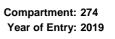
Conservation Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish spective year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of th streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effe as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian lects on water quality and quantity, as well

S Gwinn Mgt. Unit				Report 7	- Forested	Stands Compartment: 274 Year of Entry: 2019	
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	4131 - Aspen, Oak	Sapling Well	12.7	10	Immature	Harvested by Heidtman Logging in 2007 under 32-117-06-01 Cherry Creek Headwaters Sale. All birch, aspen, and maple were harvested.	
2	4139 - Aspen, Mixed Deciduous	Poletimber Well	38.9	26	1-50	This 40 was acquired using the natural resource trust fund in 1995.	
3	4125 - Black, N. Pin Oak	Poletimber Well	38.8	67	1-50	Commercially harvested in the spring 1997, permit # 15-96, Marvin Nelson For.Prod. "Co.Rd.480 Sale". 43 sq.ft./A of oak left in the sale.	
4	4130 - Aspen	Sapling Well	12.6	10	111-140	Stand Harvested in 2007 as part of the Cherry Creek Headwaters sale (32-117-16-01). All birch, aspen and maple where harvested at this time.	
6	4130 - Aspen	Sawtimber Well	27.7	53	81-110	Aspen stand with some diversity in areas also a wet drain present in the stand.	
7	4130 - Aspen	Sapling Well	68.9	10	Immature	Stand was harvested in 2007 under Cherry Creek Headwaters sale (32-117-06-01). All birch, aspen and maple where harvested.	
8	4130 - Aspen	Poletimber Well	62.5	43	Unspecified	This stand was harvested in the late 1960s- early 1970s with aspen, birch and hardwood being harvested.	
9	4130 - Aspen	Sawtimber Well	61.0	88	81-110		
10	4130 - Aspen	Sapling Medium	8.5	8	Immature	Aspen sale cut in 2009 by Jacobson Logging under 480 Aspen Sale (32-120-06-01)	
11	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	41.7	80	81-110		
12	4130 - Aspen	Sapling Well	24.1	8	Immature	Sale was cut in 2009 by Jacobson Harvesting under sale 32- 120-06-01 480 Aspen Sale.	
13	4133 - Aspen, Mixed Pine	Sapling Well	5.2	8	51-80		
14	429 - Mixed Upland Conifers	Poletimber Medium	1.9	56	81-110	Cut summer of 1991, permit#8-98. "Sands Sec 36 Blk". All bak was left. Patches of F5 occur in this multi-aged stand. The ir was prepared in 2016 for a SBW salvage sale Thunder Valley SBW. Stand was cut by Sanville Logging Inc. under sale 32-112-16-01 Thunder Valley SBW all Oak was left in the sale area. The stand will now be trenched and planted to red pine.	
15	4130 - Aspen	Sapling Well	15.4	11	81-110	This stand was cut under Cherry Creek Aspen Sale, 32-026-96-01. The sale was harvested by Gane & Miljour Forest products with a TCD dated 1/9/97. All oak and conifers where left in this harvest.	

S t	Gwinr	Gwinn Mgt. Unit			- Forested	Stands Compartment: 274 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	4130 - Aspen	Poletimber Well	35.4	40	81-110	
18	4119 - Mixed Northern Hardwoods	Sawtimber Well	3.1	88	81-110	
19	4130 - Aspen	Sapling Well	25.8	18	Immature	
20	4133 - Aspen, Mixed Pine	Sawtimber Well	13.6	88	81-110	
21	4133 - Aspen, Mixed Pine	Poletimber Medium	10.5	93	81-110	Stand is not operable due to access and terrain
22	4130 - Aspen	Sawtimber Well	54.4	88	81-110	
23	4319 - Mixed Upland Forest	Poletimber Medium	23.3	81	111-140	
24	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	7.2	81	81-110	
25	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	19.6	76	81-110	
26	4136 - Aspen, Mixed Conifer	Sawtimber Well	8.3	81	81-110	
27	4130 - Aspen	Sapling Well	17.0	27	Immature	Cut in 1990 by Milo Palm under SE 26 Aspen Sale. All oak where left as well.
28	42290 - Natural Mixed Pine	Sawtimber Well	6.1	61	81-110	Thunder Valley horse trail runs through stand.
29	42250 - Pine, Oak	Sapling Well	12.0	22	51-80	
30	42250 - Pine, Oak	Poletimber Well	182.7	75	81-110	A pine oak stand with red pine being the dominant species in most areas . Oak is a little smaller and only codominant in most areas , thought there are areas with Oak being there primary canopy.
31	4319 - Mixed Upland Forest	Sawtimber Well	9.5	76	111-140	
32	42310 - Planted Spruce	Poletimber Well	1.2	56	51-80	White spruce plantation, prepped for SBW salvage Thunder Valley SBW.
33	42210 - Natural Red Pine	Sawtimber Well	7.5	76	81-110	Stand was cut in 1991 under permit #10-89. All red pine and white pine where left. Creek on map is inaccurate/ does not effect stand.

S t	Gwinn	Mgt. Unit		Report 7	– Forested	Stands Compartment: 274 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42120 - Planted Jack Pine	Sapling Well	14.8	22	Immature	Stand was cut in 1991 by Escanaba Paper under Sands Jack Pine 31-010-09-01. All oak was left. Stand was replanted to Jack pine in 1995.
35	42310 - Planted Spruce	Poletimber Well	0.9	56	51-80	White spruce plantation, prepped for SBW salvage Thunder Valley SBW.
36	42210 - Natural Red Pine	Sawtimber Well	6.8	85	141-170	Some dense pockets of large pine occur.
37	42290 - Natural Mixed Pine	Sawtimber Medium	11.4	76	1-50	Harvested in 2011 by Minerick Logging under TS#32-113-09-01 Thunder Valley Sale. Oak and large pines left for in stand retention.
38	4310 - Pine, Oak Mix	Poletimber Medium	10.2	75	1-50	Harvested in 2011 by Minerick Logging under TS#32-113-09-01 Thunder Valley Sale. Oak and large pines left for in stand retention.
39	4112 - Maple, Beech, Cherry Association	Sawtimber Well	77.3	76	81-110	Selectively cut in 2001 by Northern Michigan Veneers under Canada Yew Sale (32-116-99-01). This site was also harvested using a selection system in 1948-1949. Hilly terrain in this "80".  Man made pond in NE corner is in trespass.
40	4112 - Maple, Beech, Cherry Association	Poletimber Well	72.4	71	51-80	Selectively cut in 2001 by Northern Michigan Veneers under Canada Yew Sale (32-116-99-01).
41	4125 - Black, N. Pin Oak	Sawtimber Well	189.6	77	81-110	This is a scrub oak stand, that has an extensive road system thought. low site potential with a few white pine in the understory and a full ground cover of blueberry and winter green. We should consider some patch cuts to start regenerating the oak in this stand.
42	42210 - Natural Red Pine	Sapling Well	13.6	22	Immature	CUT IN 91 PERMIT #8-89. PLANTED TO red pine 5/95. R1 and R2 as well as some minor semi-open areas occur as inclusions.
43	4134 - Aspen, Spruce/Fir	Sapling Well	30.4	26	Immature	Stand was cut By Holli FP in 1991 under 31-008-89-01 Sands Section 36 Block. All oak was left in this harvest. Regeneration is a mix of aspen, jack pine, white pine, balsam fir, and red maple.
45	4119 - Mixed Northern Hardwoods	Poletimber Well	222.0	71	111-140	Research plots in SW corner of stand.
46	4136 - Aspen, Mixed Conifer	Sapling Well	17.4	16	Immature	Harvested in 2001: TS#117-99-01.
47	4199 - Other Mixed Upland Deciduous	Poletimber Well	22.4	52	81-110	
48	4119 - Mixed Northern Hardwoods	Sawtimber Well	11.9	66	111-140	

S t	Gwini	n Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	•	Compartment: 274 Year of Entry: 2019  General Comments:	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range			
50	4130 - Aspen	Poletimber Well	48.3	42	81-110	Large aspen stand , large slope may older will act as long term retention harvested by Donald Aalto in 1975 i aspen, hardwood and birch	n here. Stand n a scale sale	was last where all
51	4112 - Maple, Beech, Cherry Association	Sawtimber Well	39.2	70	111-140	far southern part of the stand is prep compartment 275. the valley flour is	ne inoperable area due to steep slopes. The if the stand is prepared with a timber sale in it. the valley flour is available and should be dered for harvest at some point.	
54	4112 - Maple, Beech, Cherry Association	Poletimber Well	9.3	41	1-50	past. its slowly coming back to a mix	ars to have been harvested at some point in the coming back to a mix of species, and currently provides upland brush habitat.	
60	42110 - Planted Red Pine	Poletimber Well	8.1	51	141-170	Part of this stand was harvested in Contracting Shop Sale (3		
62	42290 - Natural Mixed Pine	Poletimber Well	27.1	65	81-110	Part of this stand was harvested in Contracting Shop Sale (3	,	
65	4130 - Aspen	Sapling Well	23.7	10	81-110	This stand was cut by Keweenaw Tir under Sandy Trial Aspen (32-116-06- where harvested	01) All aspen	





Stand	Cover Type	Acres	Managed Site	General Comments:
5	122 - Road/Parking Lot	17.3	No	Co. Rd. 480.
17	122 - Road/Parking Lot	1.1	No	Thunder Valley Trail parking lot.
44	330 - Low-Density Trees	17.2		Cut summer of 1991, permit#8-98. "Sands Sec 36 Blk". All oak was left. Patches of F5 occur in this multi-aged stand. The fir was prepared in 2016 for a SBW salvage sale Thunder Valley SBW. Stand was cut by Sanville Logging Inc. under sale 32-112-16-01 Thunder Valley SBW all Oak was left in the sale area. The stand will now be trenched and planted to red pine under FTP 32-886.
49	320 - Upland Shrub	11.1	No	White spruce plantation, prepped for SBW salvage Thunder Valley SBW . Stand was cut by Sanville Logging Inc. under sale 32-112-16-01 Thunder Valley SBW all Oak was left in the sale area. The stand will now be trenched and planted to red pine under FTP 32-886
59	122 - Road/Parking Lot	9.7	No	Marquette repair shop and ICC.
61	122 - Road/Parking Lot	11.6	No	Cherry Creek Fish hatchery and grounds.
63	310 - Herbaceous Openland	3.6	No	
400	31029 - Grass (OI)	5.0	Yes	Originally this was stand #225. It was cleared in Aug. 1994 and seeded in Aug. 1995.