DNR MICHIGAN

Compartment Review Presentation

Baraga Forest Management Unit

Compartment 11061 Entry Year 2020 Acreage: 1,816

County Houghton

Management Area: Sturgeon Sloughs

Revision Date: 2018-03-07

Stand Examiner: Jason Mittlestat

Legal Description:

Chassell Township

T53N, R33W, Sections 29, 31, 32 and 33.

Identified Planning Goals:

To maintain a healthy sustainable forest with special consideration to wildlife and fisheries habitat.

Soil and topography:

The lowland to the east is Lupton and Cartho muck. The upland to the east is AuGres sand, Arnheim silt loam, and Pelkie loamy fine sand. Upland to the west is a Complex of Munising loamy fine sand, sandy loam and loamy sand, Abbaye loamy fine sand, Kalkaska sand, Alcona loamy fine sand and Liminga fine sand.

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

Several small private ownerships of both wooded and farm lands adjoin this compartment. There is a parcel of adjoining state land to the north.

Unique Natural Features:

MNFI recognizes the potential for loon, bald eagle, osprey, merlin, great-blue heron rookeries, red-shouldered hawk, northern goshawk, gray wolf, moose and wood turtle (along drainages).

Archeological, Historical, and Cultural Features:

None.

Special Management Designations or Considerations:

BMP guidelines should be followed around the intermittent streams.

Watershed and Fisheries Considerations:

The Sturgeon River, it's sloughs and several unnamed tributaries drain into the water resources.

Wildlife Habitat Considerations:

Favor mesic conifers; White Pine and Hemlock, as well Northern Red Oak. There is ongoing maintenance of the impoundments, roads, parking lot, and dikes of the Sturgeon River Sloughs Wildlife Area.

Mineral Resource and Development Concerns and/or Restrictions

There is no history of sand & gravel production in the area, and potential within the compartment appears to be limited. There is no history of mineral leasing within the compartment, and there does not appear to be any known metallic or bedrock non-metallic mineral potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Access to state owned land though private ownership may be a problem. Also, additional access may require DEQ permits due to numerous drainages in the area.

Survey Needs:

Some survey work will need to be done for harvest activities.

Recreational Facilities and Opportunities:

The Sturgeon River Sloughs Wildlife Area impoundments provide good hunting for waterfowl. The area is popular locally for fishing, canoeing, trapping, and hunting for waterfowl, deer, bear, and small game.

Fire Protection:

This compartment has minimal fire activity.

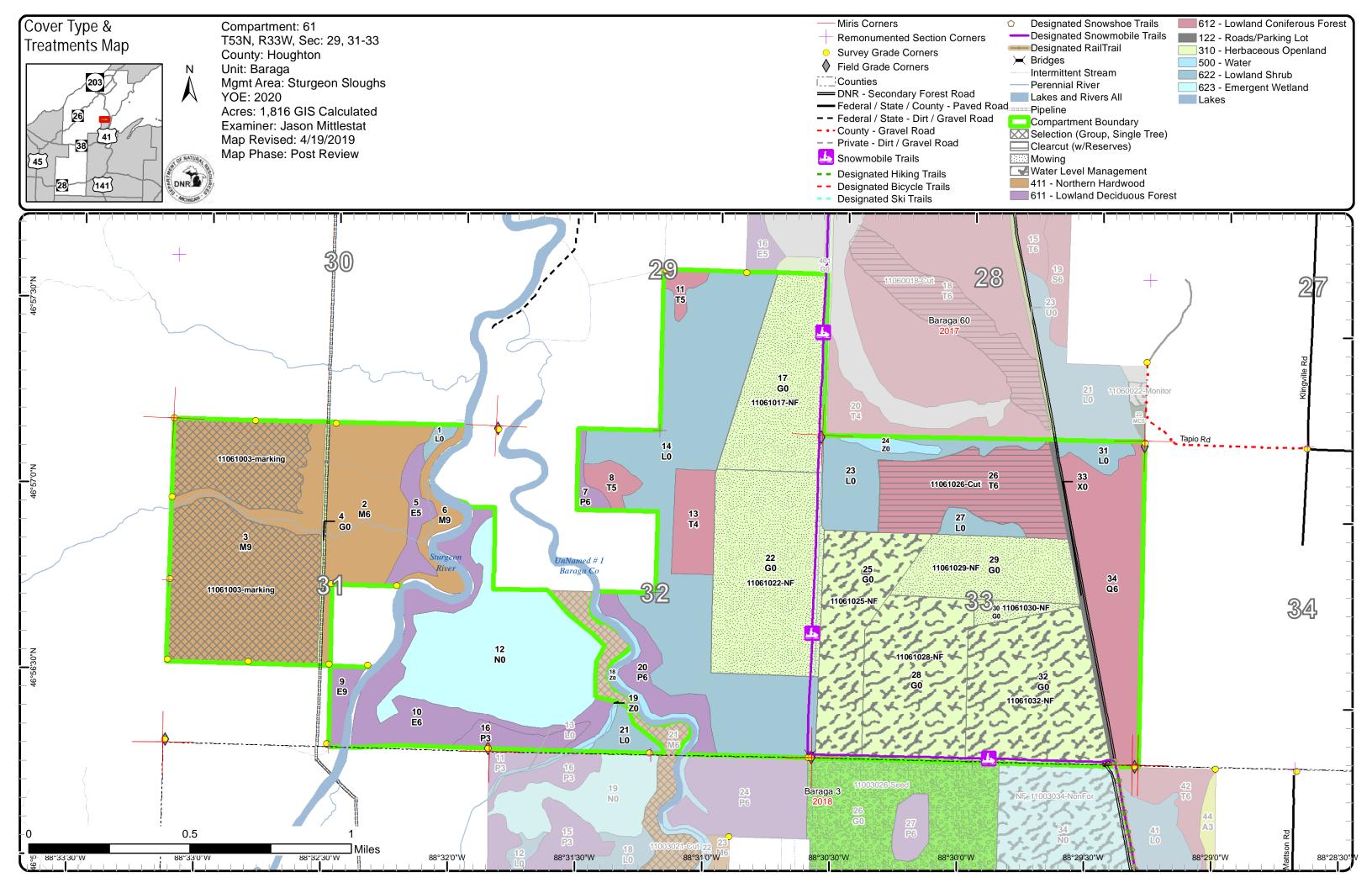
Additional Compartment Information:

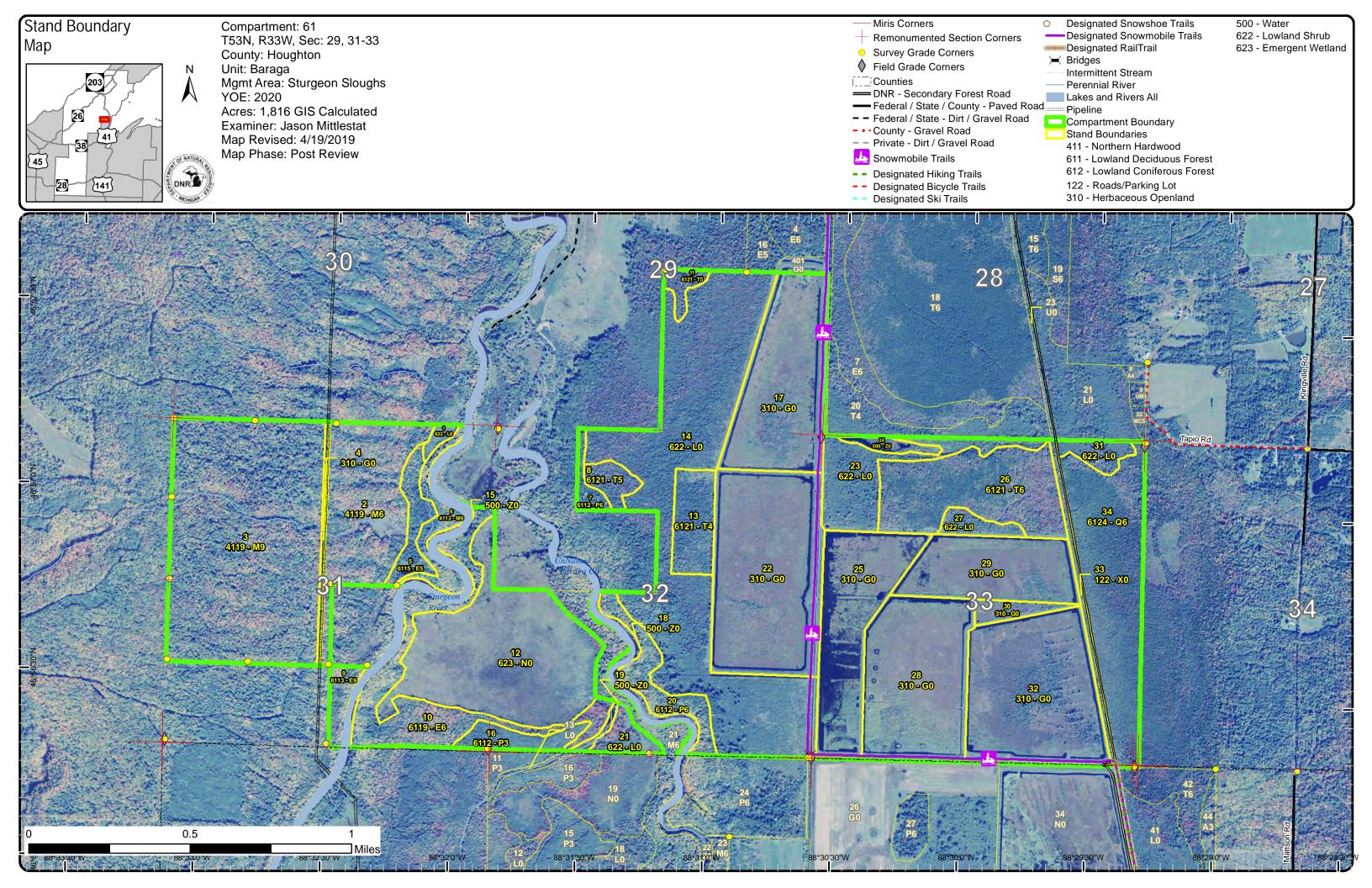
The following reports from the Inventory are attached:

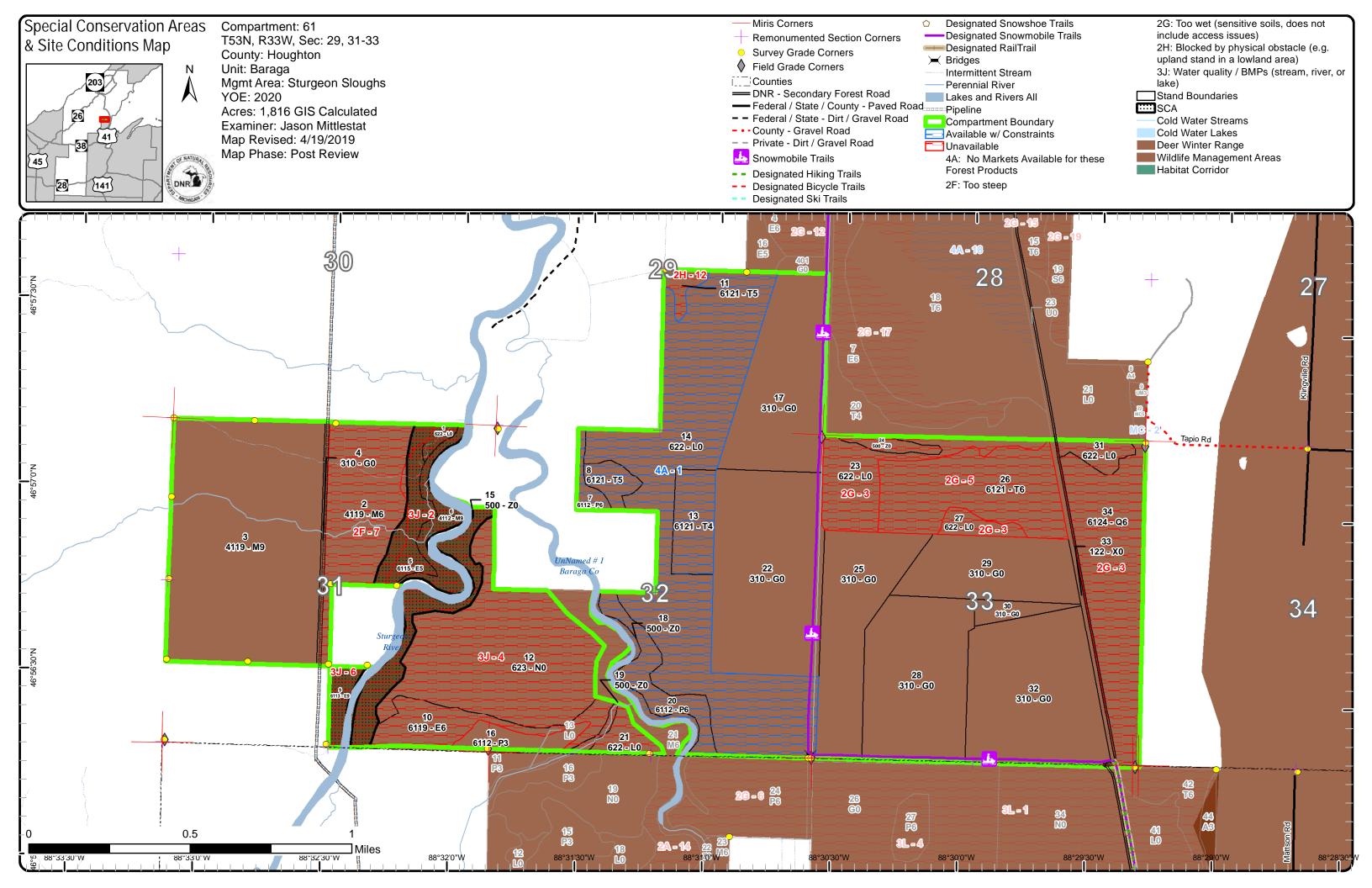
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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

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







Baraga Mgt. Unit

Compartment 61 Year of Entry 2020

Jason Mittlestat: Examiner

Age Class

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Herbaceous Openland	614	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	614	
Lowland Aspen/Balsam Poplar	0	0	15	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	48	
Lowland Conifers	0	0	0	0	0	0	0	0	0	103	0	0	0	0	0	0	0	0	103	
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	95	
Lowland Shrub	311	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	310	
Marsh	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	329	329	
Tamarack	0	0	0	0	0	0	26	0	82	0	17	0	0	0	0	0	0	0	125	
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
Water	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	
Total	1117	0	15	0	0	0	26	0	82	136	17	0	0	0	0	0	0	424	1816	1



Report 2 – Treatment Summary

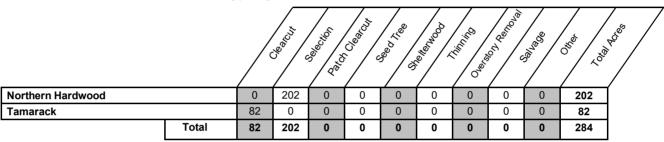
Baraga Mgt. Unit Year of Entry: 2020

Acres of Harvest

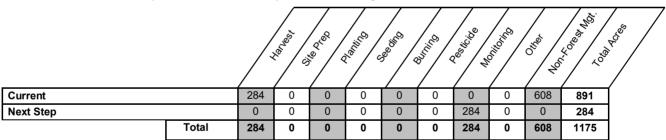
Compartment 61
Total Compartment Acres: 1,816

Commercial Harvest - 202 Harvests with Site Condition - 82 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 61 Year of Entry: 2020

DNR DNRCHIGAN
nnroval

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	11061003- marking	201.8 N	4119 - Mixed Northern Hardwoods	Sawtimber Well	99	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal - Approval Pending Edits

Habitat Cut: No Site Condition:

Prescription Selectively thin hardwoods to 70-90 square feet of basal area. Favor oak, hemlock, white pine and cedar where/if present. Oak should be released

Specs: on 3 sides to an average BA of 60 sqft. Follow all guidelines set forth in "The Complete Marker".

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the original stand's over story species prior to harvest.

Regen:

s

Other Retention: 3-10% BA will be the retention for this stand.

Comment:

Proposed Start Date: 10/1 /2019

1711061017-NF95.0310 - HerbaceousNonstockedUnspecNonForestMgtMowing31022 - WarmProposal -OpenlandifiedSeason GrassApprovalPending Edits

Habitat Cut: No Site Condition:

Prescription Annually mow road on dike top. Every 3 years, mow the remainder of the dike and land between the dike and ditch to control invading woody vegetation. Manually cut larger trees, if necessary. Fill voids in dike caused by bank beavers, if necessary. Retain precipitation, but do not pump water into this unit.

water into this unit

Bog mat in Unit 2 floats on top of any pumped water and prevents flooding of the interior of the impoundment (water visible to flying waterfowl).

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

22 11061022-NF 136.0 310 - Herbaceous Nonstocked Unspec NonForestMgt Mowing 31022 - Warm Proposal Openland ified Season Grass Approval
Pending Edits

Habitat Cut: No Site Condition:

<u>Prescription</u> Annually mow road on dike top. Every 3 years, mow the remainder of the dike and land between the dike and ditch to control invading woody vegetation. Manually cut larger trees, if necessary. Fill voids in dike caused by bank beavers, if necessary. Retain precipitation, but do not pump

water into this unit

Bog mat floats on top of water pumped into this impoundment and makes it impossible to flood the interior of the impoundment with water visible to flying waterfowl.

Next Step Treatments:

Acceptable Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

s Year of Entry: 2020 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Objective Name CoverType Density Structure **Status** d Age Range Type 11061025-NF 31022 - Warm 25 82.3 310 - Herbaceous Nonstocked Unspec NonForestMgt Water Level Proposal -Openland ified Management Season Grass Approval

Report 3 -- Treatments

Habitat Cut: No Site Condition:

Baraga Mgt. Unit

Prescription Increase water depth in Unit 4 to 12-18 in and pump, as needed, to maintain at this level. Plant wild rice as needed in unit 4. FTP W-11-264

Specs:

Plan prescribed burn to reduce shrub component and improve habitat for waterfowl once in 10 year period.

Next Step

Treatments:

Acceptable

Regen:

Other Comment:

Proposed Start Date:

10/1 /2019

11061026-Cut Poletimber 817 6121 - Tamarack 51-80 Clearcut with 6121 - Tamarack Even-Aged Harvest Well Retention

Proposal -Approval Pending Edits

Pending Edits

Compartment: 61

Habitat Cut: No Site Condition: Too Wet

Prescription Harvest all tamarack and aspen over 4.6" DBH.. Retain any other species. Care should be given to protect any sub-merchantable saplings.

Specs: Retention may be less than 3%.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Any combination of tamarack, silver maple, red maple, black spruce or black ash. Even a non-forested stand of tag alder is acceptable.

Regen

Other Stand is 90% dead.

Comment:

Proposed Start Date: 10/1 /2017

11061028-NF 103.2 310 - Herbaceous Nonstocked Unspec NonForestMgt Water Level 31022 - Warm Proposal -Openland ified Season Grass Approval Management Pending Edits

Habitat Cut: No Site Condition:

Prescription Flood Unit 5S to a depth of 6-18-in for 2 years by pumping, as needed. Then increase water depth to 12-18 in.

Specs:

Drawdown Unit 5S to ditch-full level before conducting a presribed burn. Plan prescribed burn to reduce shrub component and improve habitat for

waterfowl once in 10 year period.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

Baraga Mgt. Unit Report 3 -- Treatments Compartment: 61 s Year of Entry: 2020 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** n Age CoverType Type Method Objective Name Density Structure **Status** d Age Range 11061029-NF 31022 - Warm 29 63.7 310 - Herbaceous Nonstocked Unspec NonForestMgt Mowing Proposal -Season Grass Openland ified Approval Pending Edits **Habitat Cut: No Site Condition:**

Prescription After Hydro-mowing and discing in the interior of Unit 5 is finished, flood to a depth of 6-12 in by pumping water.

Specs:

Plan prescribed burn to reduce shrub component and improve habitat for waterfowl once in 10 year period.

Next Step Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

11061030-NF 310 - Herbaceous 31022 - Warm 93 Nonstocked NonForestMgt Proposal -Unspec Mowing Openland ified Season Grass Approval Pending Edits

Habitat Cut: No Site Condition:

Prescription Annually mow road on dike top. Every 3 years, mow the remainder of the dike and land between the dike and ditch to control invading woody

Specs: vegetation. Manually cut larger trees, if necessary. Fill voids in dike caused by bank beavers, if necessary.

Next Step Treatments:

<u>Acceptable</u> Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

11061032-NF 118.4 310 - Herbaceous Nonstocked Unspec NonForestMgt Water Level 31022 - Warm Proposal -Openland ified Management Season Grass Approval Pending Edits

Habitat Cut: No Site Condition:

Prescription Reflood Unit 6 to a depth of 6-18 in by mid September of the year in which discing or Hydro-mowing is completed.

Specs:

Additional Next Steps: Annually mow road on dike top. Every 3 years, mow the remainder of the dike and land between the dike and ditch to control invading woody vegetation. Manually cut larger trees, if necessary. Fill voids in dike caused by bank beavers, if necessary. depth for 2 years by pumping, as needed. Then increase water depth to 12-18 in. Plan prescribed burn to reduce shrub component and improve habitat for waterfowl once in 10 year period.

Next Step **Treatments:**

<u>Acceptable</u>

Regen: Other

Comment:

Proposed Start Date: 10/1 /2019

Total Treatment 891.4 **Acreage Proposed:**

Compartment: 61

Baraga Mgt. Unit

34%

Jason Mittlestat : Examiner Year of Entry: 2020

Availability for Management Total Acres Acres Avail Acres **Dominant Site Conditions** Available With Condition Not Available Acres 2F 2G 2H 3J Herbaceous Openland Lowland Aspen/Balsam Poplar **Lowland Conifers Lowland Deciduous** Lowland Shrub Marsh Northern Hardwood

Tamarack

Urban

Water

Total Forested Acres

Relative Percent

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition		
1	for these Forest Products Treatment for Fore			5T: Contigency Treatment for Forest Health Concerns	Unspecified	Unspecified	Unspecified		
	Comments: Stand is infested by	a beetle, 90% of trees are de	ad.						
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	40	Unspecified	Unspecified	Unspecified	Unspecified		
	Comments: Riparian Corridor protection. No active management planned.								

1,816

49%

17%

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

Report 4 – Site Conditions

Baraga Mgt. Unit

Jason Mittlestat : Examiner

Compartment: 61 Year of Entry: 2020

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	172 Unspecified		Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	220	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	82	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Riparian corridor p	rotection. Wildlife movement co	orridor	and biological diversity. no a	ctive management plar	nned.	
7	Unavailable	2F: Too steep	84	3A: Conservation Values incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
	Comments: Wildlife movement	corridor and biological diversity	/. no a	ctive management planned.			
12	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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				

Baraga Mgt. Unit Compartment: 61
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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish speci conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	les to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish specified 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.	les (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildle and Waterfowl Production Areas, deer wintering complexes in loopenings and savannas. Habitat areas are distinct from critical hendangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperations.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more endangered species, and are not

s t	Baraga	ı Mgt. Unit		Report 7	– Forested St	tands	ompartment: 61 /ear of Entry: 2020	OF NATURAL PRODUCTION OF NATURAL PROPERTY OF N
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General mments:	MICHIGAN .
2	4119 - Mixed Northern Hardwoods	Poletimber Well	83.8	62	111-140			
3	4119 - Mixed Northern Hardwoods	Sawtimber Well	226.4	99	81-110			_
5	6115 - Lowland Ash	Poletimber Medium	17.2	82	51-80			
6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	19.0	102	111-140			
7	6112 - Lowland Aspen	Poletimber Well	6.7	81	81-110			
8	6121 - Tamarack	Poletimber Medium	10.4	98	1-50			
9	6113 - Lowland Maple	Sawtimber Well	10.6	99	111-140			
10	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	67.2	99	141-170			
11	6121 - Tamarack	Poletimber Medium	7.0	98	1-50			
13	6121 - Tamarack	Poletimber Poor	26.3	52	1-50			
16	6112 - Lowland Aspen	Sapling Well	14.7	19	Unspecified			
20	6112 - Lowland Aspen	Poletimber Well	26.2	81	81-110			
26	6121 - Tamarack	Poletimber Well	81.7	71	51-80			
34	6124 - Lowland Spruce- Fir	Poletimber Well	102.6	88	51-80			

Compartment: 61 Year of Entry: 2020



Stand	Cover Type	Acres	Managed Site	General Comments:
1	622 - Lowland Shrub	3.5	No	
4	310 - Herbaceous Openland	6.1	No	
12	623 - Emergent Wetland	139.5	No	
14	622 - Lowland Shrub	233.4	No	
15	500 - Water	17.7	No	
17	310 - Herbaceous Openland	95.0	No	
18	500 - Water	14.4	No	
19	500 - Water	2.6	No	
21	622 - Lowland Shrub	11.0	No	
22	310 - Herbaceous Openland	136.0	No	
23	622 - Lowland Shrub	42.7	No	
24	500 - Water	6.6	No	
25	310 - Herbaceous Openland	82.3	No	
27	622 - Lowland Shrub	9.6	No	
28	310 - Herbaceous Openland	103.2	No	
29	310 - Herbaceous Openland	63.7	No	
30	310 - Herbaceous Openland	9.3	No	
31	622 - Lowland Shrub	10.3	No	

Baraga Mgt. Unit

Report 8 - Nonforested Stands

Compartment: 61 Year of Entry: 2020



Stand	Cover Type	Acres	Managed Site	General Comments:
32	310 - Herbaceous Openland	118.4	No	
33	122 - Road/Parking Lot	10.8	No	Abandoned Railroad Grade.