ROSCOMMON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 170 ENTRY YEAR: 2012

Compartment Acreage: 2075 County: Ogemaw

Revision Date: 1/26/10

Stand Examiner: D. Ekdom

Legal Description: T24N R1E Sections 1 – 3, 11, 12

Management Area: Kirtland's Warbler

Management Goals: Maintain current age and species diversity in a range of early and late successional ecosystems as specified by the Kirtlands Warbler Management Plan (KWMP).

Soil and Topography: Terrain is mostly flat to rolling with some steeper terrain in the center of the compartment where there is a ridge of hardwoods. Soils include Grayling sand and Newton loamy sand in the uplands and Rifle or Greenwood peats in the bottomlands adjacent to the W. Branch of Big Creek.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is a solid block of state land. The land surrounding the compartment is almost all public land including state to the south and east, USFS land to the north in Oscoda County, and a large block of USFWS land to the west in Section 3. There is one large block of private land adjacent to the compartment in the east half of Section 1 which is broken up into 10 and 20 acre pieces which are primarily used as hunting properties.

Unique, Natural Features: Kirtland's warbler has been recorded historically within and adjacent to this compartment. There is high potential for occurrence of several T & E species associated with pine barrens communities.

Archeological, Historical, and Cultural Features: None known or detected during fieldwork.

Special Management Designations or Considerations: Portions of the compartment within KW Block 80 are designated as High Conservation Value Areas (HCVA). Stands or portions of stands adjacent to W. Branch of Big Creek – a tributary of the Au Sable River - are HCVA's by virtue of its natural river designation.

Watershed and Fisheries Considerations: W. Branch of Big Creek is a tributary to the Au Sable River – a natural river and class 1 coldwater trout stream.

Wildlife Habitat Considerations: : Maintain as much ecosystem diversity in the compartment as possible given constraints imposed by the KWMP to benefit game species such as deer, grouse, rabbits, and turkeys as well as non-game species.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Mississippian Michigan Formation and Marshall Sandstone. The Michigan is quarried for gypsum and the Marshall has been used as a building stone. The

nearest gravel pit is located two miles to the northwest. However, gravel potential in the compartment is thought to be good. The Rose City Fields lie to the south. The fields have produced over 9.3 million BO and 9.9 Bcf gas from the Devonian Richfield Formation and are in secondary recovery operations currently. None of the State land is currently leased in the compartment.

Vehicle Access: Vehicle access to exterior and some interior parts of the compartment are good via county seasonal roads and forest roads. Vehicle access to the interior of some parts of the compartment has been restricted per the KWMP.

Survey Needs: None necessary at this time.

Recreational Facilities and Opportunities: No developed recreational facilities are within the compartment but the state land is heavily used for dispersed recreation such as hunting.

Fire Protection: This compartment has an abundance of jack pine cover types of mostly younger ages and is in the Zone 3 fire dispatch area. Remnants of numerous small and several large jack pine fires can still be on the landscape.

Additional Compartment Information: Proposed treatments include 78 acres of final harvests in aspen cover types. No treatments are planned in KW stands at this time.

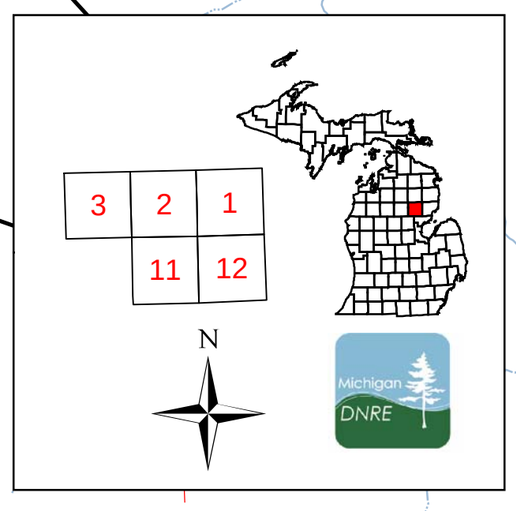
- **The following 5 reports from the Inventory are attached:**
  - **Cover Type by Age Class**
  - **Cover Type by Management Objective**
  - **Compartment Volume Summary**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - **Base feature information, stand numbers, cover types**
  - **Proposed treatments**
  - **Proposed road access system**
  - **Suggested potential old growth**

Cover Type & Treatment Map

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

Compartment 170
T33N, R03W, Sec. 1, 2, 3, 11, 12
County: Ogemaw
Unit: Roscommon
YOE: 2012
Acres: 2,075 GIS Calculated
Stand Examiner: Dale Ekdom
Map Revised: 08/27/2010
Map Phase: Pre-Review



Legend

- Miris Corners
- Remonumented Section Corners
- Cable
- Pipe
- Power
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Closed Roads
- Trails
- Snowmobile Trails
- Ski Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated

1 0.5 0 1 Miles

84°19'0"W 84°18'0"W 84°17'0"W 84°16'0"W 84°15'0"W
44°31'0"N 44°30'0"N 44°29'0"N 44°28'0"N

Holloway Rd
Hughes Lake Rd
Jenk
Rich Rd
Lemon Rd
Tobacco Rd
County Line Rd
Oyster Rd
Perry Holt Rd
Gilford Ranch Trl
McGregor Rd
Cuttin Lake Trl
Number 210 Rd
Turney Ranch Trl
Roll Rd
Tower Rd
Number 321 Rd
N Dow Rd
Unknown
West Branch Big Creek

1 4310-UM5
2 4191-MD6
3 4139-A6
4 4130-A2
5 310-G0
6 310-G0
7 4222-J4
8 4191-MD1
9 310-G0
10 4130-A3
11 310-G0
12 4229-MC6
13 310-G0
14 622-L0
15 310-G0
16 4191-MD5
17 4199-MD3
18 310-G0
19 4130-A6
20 4191-MD6
21 6139-LM4
22 330-U0
23 622-L0
24 4131-A6
25 6122-S5
26 790-X0
27 4130-A3
28 310-G0
29 4139-A6
30 310-G0
31 4212-J3
32 310-G0
33 310-G0
34 310-G0
35 4131-A6
36 4126-O9
37 310-G0
38 4226-MC5
39 310-G0
40 4191-MD3
41 310-G0
42 310-G0
43 310-G0
44 4191-MD6
45 310-G0

Stand Boundary Map

Stand # 23
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(412)0) - A7
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- Snowmobile Trails
- Ski Trails
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands

Level 3

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413 - Aspen Types
419 - Mixed Upland Deciduous
421 - Planted Pines
422 - Natural Pines
431 - Upland Mixed Forest
612 - Lowland Coniferous Forest
613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

310 - Herbaceous Openland
330 - Low-Density Trees
622 - Lowland Shrub
790 - Other Bare/Sparsely Vegetated

1 0.5 0 1 Miles

Dedicated & Proposed Special Conservation Area Map

Stand # 23 — Stocking Density

(412)0) - A7

Level 3 / Level 4 — OI Code

Cover Type Code

Compartment 170
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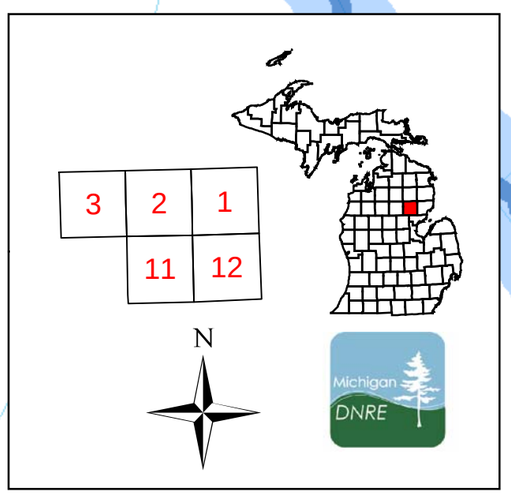

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3 4139-A6
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13 310-G0
14 622-L0
15 310-G0
16 4191-MD5
17 4199-MD3
18 310-G0
19 4130-A6
20 4191-MD6
21 6139-LM4
22 330-U0
23 622-L0
24 4131-A6
25 6122-S5
26 790-X0
27 4130-A3
28 310-G0
29 4139-A6
30 310-G0
31 4212-J3
32 310-G0
33 310-G0
34 310-G0
35 4131-A6
36 4126-O9
37 310-G0
38 4226-MC5
39 310-G0
40 4191-MD3
41 310-G0
42 310-G0
43 310-G0
44 4191-MD6
45 310-G0

Legend

- Miris Corners
- Remonumented Section Corners

Proposed Special Conservation Areas

- SCA - Special Conservation Area
- SCA Removal

Dedicated Special Conservation Areas

- Cold Water Streams
- Kirtland Warbler Habitat
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer
- Stand Boundaries

Forest Stands

Level 3

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- 413 - Aspen Types
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44°31'0"N 44°30'0"N 44°29'0"N 44°28'0"N

Table 1 – Total Acres by Cover Type and Age Class

Roscommon Mgt. Unit **Compartment 170 Year of Entry 2012**

Data updated before 10:00 AM

Age Class

	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneven Age	Total
Aspen	0	98	0	0	26	152	0	0	0	0	0	0	0	0	0	**276**
Bare/Sparsely Vegetated	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**13**
Herbaceous Openland	1257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1257**
Jack Pine	0	0	79	17	0	0	0	0	0	0	0	0	0	0	0	**96**
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**
Lowland Mixed Forest	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	**5**
Lowland Shrub	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**52**
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	**22**
Mixed Upland Deciduous	0	0	11	225	11	0	0	0	0	0	0	0	0	0	0	**248**
Natural Mixed Pines	0	0	0	0	0	26	0	0	0	0	0	0	0	0	15	**41**
Oak	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	**40**
Upland Mixed Forest	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	**20**
Total	**1327**	**98**	**90**	**242**	**58**	**178**	**0**	**5**	**40**	**0**	**0**	**22**	**0**	**0**	**15**	**2075**

Table 2 – Proposed Treatment Summaries

Data updated before 10:00 AM

Roscommon Mgt. Unit
Year of Entry 2012

Compartment 170
Total Compartment Acres: 2075

Acres by Treatment Type

Commercial Harvest - 78	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	78	0	0	0	0	0	**78**
Total	**78**	**0**	**0**	**0**	**0**	**0**	**78**

Table 3 -- Treatments Prescribed with No Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19	71170019-Cut	18.2	4130 - Aspen	High Density Pole	48	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: final harvest and manage for aspen, leave brushy/jack pine areas north of the two-track for retention, mark oak to leave for wildlife needs, use KW specs for nesting protection

Other Comments: treatment size may vary due to adjustments for terrain, any combination of aspen and hardwoods to a fully stocked stand is acceptable

Next Steps: regeneration survey

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
29	71170029-Cut	23.8	4139 - Aspen, Mixed Deciduous	High Density Pole	45	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: final harvest and manage for aspen, leave brushy/jack pine areas & lower/wetter areas north of the two-track for retention, mark oak to leave for wildlife needs, use "rabittat" specs for areas along north boundary, use KW specs for nesting protection

Other Comments: treatment size may vary due to adjustments for terrain, any combination of aspen and hardwoods to a fully stocked stand is acceptable

Next Steps: regeneration survey

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	71170035-Cut	35.8	4131 - Aspen, Oak	High Density Pole	45	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription Specs: final harvest for aspen regeneration, mark oak - esp. white oak for wildlife needs, use KW specs for nesting protection

Other Comments: treatment are size may vary depending on terrain, any combination of aspen and hardwoods to a fully stocked stand is acceptable

Next Steps: regeneration survey

Total Treatment Acreage Proposed: 77.8

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						

Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Data updated before 10:00 AM

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2012

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status

Prescription Specs:

Other Comments:

Next Steps:

Total Treatment Acreage Proposed: **0**

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4310 - Pine, Oak Mix	Medium Density Pole	19.9	37		stand was cut to 4" in 1994, bulk of stand is 1973 YOO, not much regeneration from 1994 cut and stand is fairly open in spots, scattered larger oaks and RP also, possibly treat with surrounding stands in 10 years
2	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	11.4	37		mix of younger aspen/oak/JP/RP with older oak and red pine, possibly treat with stand to the north in 10 years
3	4139 - Aspen, Mixed Deciduous	High Density Pole	26.4	37		pockets of aspen red maple poles interspersed with areas of oak/pine logs, hold 10 years
4	4130 - Aspen	Medium Density	10.7	7		cut 2003 for KW and regenerated to aspen
7	42221 - Natural Jack Pine, Mixed Deciduous	Low Density Pole	17.0	26		stand was cut to 4" in 1984 and never planted, now oldest jack pine is pole size with sparse younger jack pine, stand is somewhat of a frost pocket, possible barrens management as KW cut to the south matures
8	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	72.6	27		frost pocket, cut in 1983 and did not regenerate to fully stocked stand either naturally or from planting, stand is mostly pin cherry and sapling size J/O with scattered jack pine poles
10	4130 - Aspen	High Density Sapling	60.9	7		cut in 2003 for KW and regenerated to aspen
12	42290 - Natural Mixed Pine	High Density Pole	26.1	46		stand is a steep bank with jack pine poles down to low wet ground with black spruce and tamarack, retain as buffer on bog/"L" to the west
16	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	44.5	27	1-50	stump sprout oak/RM and aspen with scattered RP SL and JP poles, very open in most spots, other parts are well sctocked with pin cherry/RM, somewhat of a frost pocket
17	4199 - Other Mixed Upland Deciduous	High Density Sapling	25.9	27		cut to 4" in 1983, nice stand of stump sprout/seed oak and red maple with scattered aspen and RP, also scattered larger oak (6" - 8" dbh)
19	4130 - Aspen	High Density Pole	45.1	49		stand has north aspect, top of slope (outh) is mostly pole-size BTA with scattered oak and grades into SL oak over pole-size TA to the north (bottom of slope), scattered J/R pine poles thru-out especially the north border, oak is not great quality, stand could hold 10 years although TA is starting to develop hypox. canker
20	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	56.6	27	1-50	mix of everything but mostly jack pine poles and MO stump sprouts, SE arm has inclusion of oak SL with lots of blowdown and heavy FW theft occuring despite fact that roads leading to this inclusion were planted closed when the warbler cuts were planted

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6139 - Mixed Lowland Forest	Low Density Pole	5.2	60		low/wet drainage are with TA and black spruce, stand is not well stocked and has lots of tag alder in the u.s., will probably be classified as non-forested (622) after TA dies out unless black spruce takes over
24	4131 - Aspen, Oak	High Density Pole	13.3	46		mix of BTA and stump sprout oak/RM, scattered larger whit/black oak, smaller aspen on west arm and NE corner is 1983 YOO, areas heavy to oak and areas heavy to A/RM, should hold OK for next 10 years until stand to the south is bigger
25	6122 - Black Spruce	Medium Density Pole	22.1	106		low/wet stand of black spruce poles and WP SL and XL, stand is long and narrow running along east bank of WB of Big Creek which is a tributary to Au Sable River - natural river, contains a few small inclusions of R9/W9 and A9 in draws leading to the creek
27	4130 - Aspen	High Density Sapling	26.0	7		cut 2003 for KW and regenerated to aspen
29	4139 - Aspen, Mixed Deciduous	High Density Pole	35.7	46		mostly pole-size TA/RM but some BTA on south end with oak SL, cut as much of this stand as possible given steep terrain and vernal ponds/potholes
31	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	79.1	15		cut 1993 and planted to jack pine April 1995
35	4131 - Aspen, Oak	High Density Pole	57.9	46		aspen is mostly BTA with scattered oak SL, also areas heavy tooak interspersed within aspen clones, could cut flatter NE portion of this stand if desired, O/A should be OK to hold 10 years
36	4126 - White, Black, N. Pin Oak	High Density Log	40.2	75	111-140	middle of stand is mostly oak and grades into O/A to the north and south as you drop off the top of the ridge, top of ridge is WO/NPO, rest of stand is RO/WO, oak quality isn't that great but both oak and aspen are growing well
38	42260 - Natural Pine, Mixed Deciduous	Medium Density Pole	14.9	Uneven Age		mix of everything and not much quality on any species, larger jack pine is slowly declining but there is a good cohort of jack pine sapslings in much of the stand, areas are heavy to aspen or oak also, stand is 2 aged going to all aged, could cut JP/aspen and mange for u.s. oak/JP/RM or treat when u.s. becomes more merchantable
40	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	11.2	18		
44	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	25.7	27		stand is just reaching pole-size and is a mix of hardwoods and natural pine

6 – Nonforested Stands

Data updated before 10:00 AM

Compartment: 170
Year of Entry: 2012

Stand	Cover Type	Acres	Gen Cmts:
5	310 - Herbaceous Openland	84.8	planted to jack pine for KW in 2006
6	310 - Herbaceous Openland	128.5	planted in 2006 to jack pine for KW
9	310 - Herbaceous Openland	30.6	
11	310 - Herbaceous Openland	52.4	planted in 2006 to jack pine for KW
13	310 - Herbaceous Openland	17.0	
14	6229 - Mixed lowland shrub	11.7	
15	310 - Herbaceous Openland	70.7	planted 2006 to jack pine for KW
18	310 - Herbaceous Openland	25.8	
22	330 - Low-Density Trees	4.7	possible maintained opening or barrens
23	622 - Lowland Shrub	40.0	
26	790 - Other Bare/Sparsely Vegetate	12.8	
28	310 - Herbaceous Openland	96.5	planted in 2006 to jack pine for KW
30	310 - Herbaceous Openland	38.3	planted in 2006 to jack pine for KW
32	310 - Herbaceous Openland	498.0	planted in 2006 to jack pine for KW
33	310 - Herbaceous Openland	11.2	
34	310 - Herbaceous Openland	6.4	
37	310 - Herbaceous Openland	11.4	planted in 2008 to jack pine for KW
39	310 - Herbaceous Openland	113.8	planted in 2006 to jack pine for KW

Stand	Cover Type	Acres	Gen Cmts:
41	310 - Herbaceous Openland	5.5	
42	310 - Herbaceous Openland	58.6	planted in 2008 to jack pine for KW
43	310 - Herbaceous Openland	3.7	
45	310 - Herbaceous Openland	4.2	planted to jack pine for KW in 2006

7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Data updated before 10:00 AM

Stand	SCA Type	SCA Name	Acres	Comments
25	**Unique Site - SCA**	71170025	22.1	

8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Data updated before 10:00 AM

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

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.