Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 042 Entry Year: 2013
Compartment Acreage: 1, 216 County: Marquette

Revision Date: 08/18/2011

Stand Examiner: Theresa Sysol

Legal Description: T44N R25W Section 7, 8, 9

RMU (if applicable): Chain Lake Moraine Management Area

Management Goals: To maintain and enhance forest health and sustainability, while providing for wildlife, fisheries and recreational needs.

Soil and Topography: Lowland grounds of Carbondale-Tawas and Greenwood-Dawson mucks, with higher grounds around Co Rd 557 of Croswell and Rubicon sands transitioning into Croswell-Deford and AuGres-Deford further east.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Mainly State ownership, although there are private parcels and camps scattered within, as well as adjacent. Fairly heavy recreational use, due to Anderson Lake campground and cross-country ski trail.

Unique, Natural Features: Potential for osprey, eagle, and great blue heron rookery. Potential for red-shouldered hawk and goshawk. Potential for loon in Greenier Lake, Flack Lake, and Anderson Lake. Potential for moose and wolf. Potential for wood turtle in Escanaba River. Potential for frigga fritillary, freija fritillary, and red-disked alpine in bogs. Potential for round-leaved orchis, calypso, ram's head lady's slipper, marsh grass-of-Parnassass, and limestone oak fern in Cedar Swamps. Potential for auricled tway-blade, western dock, veiny meadow-rue, and linear-leaved gentian along riparian areas. Potential for Farwell's water-milfoil and alternate-leaved water-milfoil in shallow lakes. Potential for purple clematis in dry-mesic conifer stands.

Archeological, Historical, and Cultural Features: none identified

Special Management Designations or Considerations:

Watershed and Fisheries Considerations: Anderson Lake, Flacks Lake, Greenier Lake, Escanaba River

Wildlife Habitat Considerations: Maintain or increase potential of hard mast production by utilizing management strategies that encourage oak. Manage for within-stand diversity by protecting and/or enhancing white and red pine, and strive to increase diversity for wildlife. Maintain the best age class diversity in aspen. Strive to increase within-stand diversity in aspen by utilizing retention guidelines to provide the best combination of food and cover. Within Special Conservation Areas along the Escanaba River maintain large closed canopy conifer to provide snow intercept and cover, mature forest structure and protection for wildlife corridors and protect riparian areas. Diversity in habitat types in this compartment offers a variety of hunting, trapping, and wildlife viewing opportunities.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist primarily of peat and muck and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. The Cambrian Trempealeau and Munising Formations subcrop below the glacial drift. The Trempealeau could be used for stone. Gravel pits are located two miles to the north, and there appears to be limited potential. Abandoned iron mines are located three miles to the north, but this compartment has never been leased. There is no economic oil and gas production in the UP.

Vehicle Access: good via Co Rd 557, with few interior roads present. Access into section 9 is from the Muehrcke Road to the north.

Survey Needs: none at this time

Recreational Facilities and Opportunities: Anderson Lake cross-country ski trail, Flacks Lake nature trail, and access to Anderson Lake campground and boat launch.

Fire Protection: Fire risk is relatively low, although intensive recreational use in and around Anderson Lake creates a higher risk of human-caused fires. Lightning caused fires could create potential suppression difficulties, due to interior access problems.

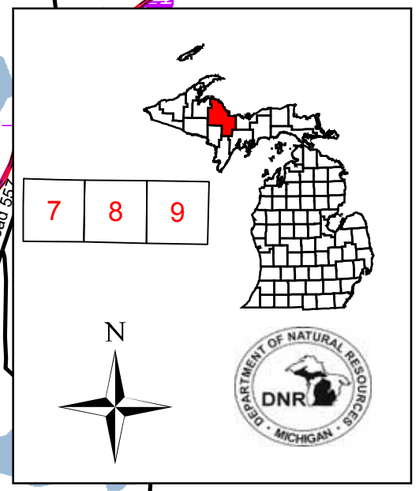
Additional Compartment Information:

- **The following 5 reports from the Operations Inventory System (OIPC) 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

Compartment 42
T44N, R25W, Sec. 7. 8, 9
County: Marquette
Unit: Gwinn
YOE: 2013
Acres: 1,216 GIS Calculated
Stand Examiner: Theresa Sysol
Map Revised: 8/23/2011
Map Phase: Pre-Review



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

87°29'0"W 87°28'0"W 87°27'0"W 87°26'0"W 87°25'0"W
46°14'0"N 46°13'0"N

Perrin Brothers Trl
Jon Pin Trl
County Road 557
County Road Eff
Anderson Lake Ln
S Anderson Lake Ln
Sawmill Creek
Greenwood Creek
Anderson Lake
Little Bobs Lake

1 **500**-Z0
2 **6129**-Q6
3 **4137**-A6
4 **6120**-C6
5 **500**-Z0
6 **110**-X0
7 **4220**-W7
8 **4112**-M5
9 **4112**-M5
10 **330**-U0
11 **330**-U0
12 **4130**-A3
13 **6122**-S3
14 **4134**-A3
15 **4112**-M6
16 **4229**-MC7
17 **6120**-C6
18 **330**-U0
19 **6120**-C6
20 **4113**-M9
21 **500**-Z0
22 **429** -MC5
23 **622**-L0
24 **429** -MC8
25 **4112**-M9
26 **330**-U0
27 **500**-Z0
28 **429** -MC8
29 **4130**-A3
30 **310**-G0
31 **4112**-M9
32 **623**-N0
33 **4134**-A3
34 **6120**-C6
35 **622**-D0
36 **6129**-Q6
37 **6124**-Q6
38 **622**-V0
39 **623**-N0
40 **4136**-A3
41 **4220**-W9
42 **4119**-M6
43 **6128**-Q6

7 8 9

1 0.5 0 1 Miles

Legend

- Miris Corners
- Remonumented Section Corners
- Corner
- Wooden Posts
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Closed Roads
- Camps
- Gates
- Parking Lot
- Power
- Ski Trail
- Snowmobile Trail
- Ski Trails
- Snowmobile Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments
- Clearcut (w/Reserves, Patch/Strip)

Forest Stands
Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 612 - Lowland Coniferous Forest

Non-Forest Stands
Level 3
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

Stand Boundary Map

Compartment 42
T44N, R25W, Sec. 7. 8, 9
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Map Revised: 8/15/2011
Map Phase: Pre-Review

7 | 8 | 9

N

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

Legend
- Miris Corners
- Remonumented Section Corners
- Corner
- Wooden Posts
- Parking
- Gates
- Camps
- Power
- Intermittent Stream/Drain
- Stream
- Snowmobile Trail
- Ski Trail
- Snowmobile Trails
- Stand Boundaries

Forest Stands
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Perrin Brother Ln
Iron Pin Trl
County Road Eff
Anderson Lake Ln
S Anderson Lake Ln
N 44°1.49'

1 500-Z0
2 6129-Q6
3 4137-A6
4 6120-C6
5 500-Z0
6 110-X0
7 4220-W7
8 4112-M5
9 4112-M5
10 330-U0
11 330-U0
12 4130-A3
13 6122-S3
14 4134-A3
15 4112-M6
16 4229-MC7
17 6120-C6
18 330-U0
19 6120-C6
20 4113-M9
21 500-Z0
22 429-MC5
23 622-L0
24 429-MC8
25 4112-M9
26 330-U0
27 500-Z0
28 429-MC8
29 4130-A3
30 310-G0
31 4112-M9
32 623-N0
33 4134-A3
34 6120-C6
35 622-D0
36 6129-Q6
37 6124-Q6
38 622-V0
39 623-N0
40 4136-A3
41 4220-W9
42 4119-M6
43 6128-Q6

7 8 9

1 0.5 0 1 Miles

87°30'0"W 87°29'0"W 87°28'0"W 87°27'0"W 87°26'0"W 87°25'0"W
46°1'30"N 46°0'30"N

Dedicated & Proposed Special Conservation Area Map

Compartment 42
T44N, R25W, Sec. 7. 8, 9
County: Marquette
Unit: Gwinn
YOE: 2013
Acres: 1,216 GIS Calculated
Stand Examiner: Theresa Sysol
Map Revised: 8/23/2011
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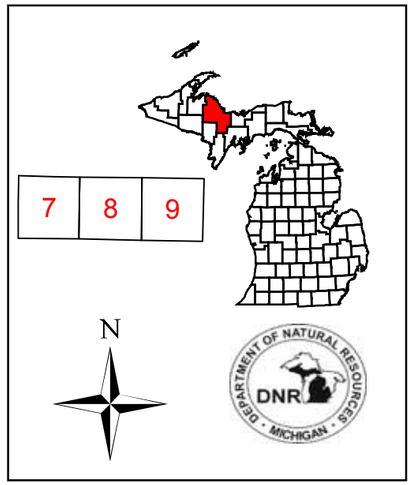

Stand # 23
Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code

Legend

- Miris Corners
- Stand Boundaries

Proposed Special Conservation Areas
- SCA - Special Conservation Area
- SCA Removal

Dedicated Special Conservation Areas
- Cold Water Streams
- Campgrounds
- Boat Access Sites

Forest Stands
- Level 3
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 422 - Natural Pines
  - 429 - Mixed Upland Conifers
  - 612 - Lowland Coniferous Forest

Non-Forest Stands
- Level 3
  - 110 - Low Intensity Urban
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Table 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit **Compartment 042 Year of Entry 2013**

Theresa Sysol : Examiner

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	0	58	57	0	0	0	0	65	0	0	0	0	0	0	**180**
Bog	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**202**
Cedar	0	0	0	0	0	0	0	0	0	0	30	0	0	8	106	**143**
Herbaceous Openland	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**
Low-Density Trees	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**8**
Lowland Conifers	0	0	0	0	0	0	0	4	0	0	30	37	0	0	0	**72**
Lowland Shrub	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**14**
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	**11**
Marsh	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**40**
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	**13**
Northern Hardwood	0	0	0	0	0	0	0	0	30	0	31	0	0	0	65	**127**
Treed Bog	284	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**284**
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	**49**
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**
Water	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**27**
White Pine	0	0	0	0	0	0	0	0	0	0	0	7	0	0	24	**31**
Total	**589**	**0**	**58**	**57**	**0**	**0**	**0**	**4**	**95**	**11**	**92**	**44**	**0**	**8**	**258**	**1216**

Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2013

Compartment 042
Total Compartment Acres: 1216

Acres by Treatment Type

Commercial Harvest - 64	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	64	0	0	0	0	0	**64**
Total	**64**	**0**	**0**	**0**	**0**	**0**	**64**

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
3	**32042003-Cut**	64.1	4137 - Aspen, Birch	High Density Pole	77	Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal

Prescription Specs: Remove all aspen and paper birch, except those designated by either diameter, retention patches, or marked as leave trees. Remove red maple and balsam fir. Along Co Rd 557, leave paper birch clumps for visual purposes, but remove potential hazard trees

Other Comments: Alter cutting boundaries/create retention leave patches to minimize visual effects and protect/enhance cross-country ski trail - removing hazardous trees. Encourage pine regeneration, where established. Leave 100' buffer along Anderson Lake.

Next Steps: Regeneration survey will be needed per Work Instructions. Acceptable regeneration includes aspen, birch, pine and minor components of spruce/fir, maple, oak.

Total Treatment Acreage Proposed: **64.1**

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**

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2013

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

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:
2	6129 - Mixed Coniferous Lowland Forest	High Density Pole	17.1	97	81-110	Surrounds Flacks Lake; the cross-country ski trail runs through this stand
3	4137 - Aspen, Birch	High Density Pole	65.0	77		Heavy deer browse on 3 - 5' red maple regeneration within.
4	6120 - Lowland Cedar	High Density Pole	7.7	163		
7	42200 - Natural White Pine	Low Density Log	24.4	Uneven Age	51-80	"Flacks Lake Aspen" #018-93 - cut Su, 1993
8	4112 - Maple, Beech, Cherry Association	Medium Density Pole	6.2	76	81-110	"Greenier Lake Hardwoods" #005-03 (unit 1) - cut Su, 2006
9	4112 - Maple, Beech, Cherry Association	Medium Density Pole	7.7	76	51-80	"Greenier Lake Hardwoods" #005-03 (unit 1) - cut Su, 2006.
12	4130 - Aspen	High Density Sapling	31.3	24		"Greenier Lake South Block" sale #033-83 (unit 1) - cut May-June, 1986
13	6122 - Black Spruce	High Density Sapling	11.3	82		Mainly black spruce swamp, with slightly high ground containing pine.
14	4134 - Aspen, Spruce/Fir	High Density Sapling	16.4	14		"Anderson Lake Mix Block" sale #019-93 (unit 2) - cut Su, 1995.
15	4112 - Maple, Beech, Cherry Association	High Density Pole	9.8	Uneven Age	81-110	"Greenier Lake Block" sale #020-93 (unit 3) - cut W, 1997
16	42290 - Natural Mixed Pine	Low Density Log	12.9	Uneven Age	81-110	"Greenier Lake Block" sale #020-93 (unit 1) - cut Su, 1996
17	6120 - Lowland Cedar	High Density Pole	5.9	93		
19	6120 - Lowland Cedar	High Density Pole	24.0	94		small timber
20	4113 - R.Maple, Conifer	High Density Log	31.4	90	81-110	"Anderson Lake Mix Block" sale # 019-93 (unit 1) - cut F, 1994 and Su, 1995.
22	429 - Mixed Upland Conifers	Medium Density Pole	21.3	Uneven Age	51-80	portions part of "Greenier Lake South Block" #033-83 (unit 3) - cut Su, 1986, "Anderson Lake Mix Block" #19-93 (unit 1) and "Greenier Lake Hardwoods" #005-03 (unit 2) - cut Su, 2006
24	429 - Mixed Upland Conifers	Medium Density Log	22.0	Uneven Age		part of "Greenier Lake Block" sale # 020-93 (unit 2) - cut W, 1997. Average BA=80
25	4112 - Maple, Beech, Cherry Association	High Density Log	35.0	Uneven Age	81-110	"Greenier Lake Block" #020-93 (unit 4) - cut W,1997. Marked trees to cut and left any cedar and hemlock.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	429 - Mixed Upland Conifers	Medium Density Log	6.0	Uneven Age	51-80	
29	4130 - Aspen	High Density Sapling	14.1	24		"Greenier Lake South Block" #033-83 (unit 2) - cut F, 1986.
31	4112 - Maple, Beech, Cherry Association	High Density Log	20.2	Uneven Age	51-80	"Greenier Lake South Block" #033-83 (unit 3) - cut Su, 1986 and "Greenier Lake Hardwoods" #005-03 (unit 3) - cut Su, 2006.
33	4134 - Aspen, Spruce/Fir	High Density Sapling	11.6	24		"Greenier Lake South Block" #033-83 (unit 2) - cut Fall, 1986. Contains residual S/F and white pine. Trace amounts of paper birch and black cherry.
34	6120 - Lowland Cedar	High Density Pole	105.9	Uneven Age		Trace amounts of black ash noted.
36	6129 - Mixed Coniferous Lowland Forest	High Density Pole	13.3	99		Slightly higher timbered island within bog.
37	6124 - Lowland Spruce-Fir	High Density Pole	4.3	67		Previous inventory(s) indicate well-stocked spruce/fir.
40	4136 - Aspen, Mixed Conifer	High Density Sapling	41.7	13		"F & M Aspen Block" #012-93 - cut summer, 1996. Left all WP, cedar, hemlock and small BF/Spruce, which is now coming into pole-class sizes. With hazel, bracken fern, grasses, raspberry ground cover.
41	42200 - Natural White Pine	High Density Log	7.1	100	51-80	
42	4119 - Mixed Northern Hardwoods	High Density Pole	16.2	75	81-110	Escanaba River influence
43	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	37.0	100		

6 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	50 - Water	8.9	No	Unspecified	Flacks Lake
5	50 - Water	3.4	No	Unspecified	Anderson Lake
6	11 - Low Intensity Urban	9.1	No	Unspecified	Co Rd 557 and R.O.W.
10	3303 - Mixed Low Density Trees	1.3	N\A	Unspecified	
11	3302 - Low Density Conifer Trees	1.1	N\A	Unspecified	Fairly thick with white pine seedlings.
18	3302 - Low Density Conifer Trees	2.9	N\A	Unspecified	
21	50 - Water	12.0	N\A	Unspecified	Greenier Lake
23	6220 - Alder/willow	13.8	No	Unspecified	Scattered small white pine and cedar within.
26	3302 - Low Density Conifer Trees	2.7	No	Unspecified	
27	50 - Water	2.8	N\A	Unspecified	part of Greenier Lake
30	3102 - Grass	4.5	N\A	Unspecified	Aster and mullein stalks noted.
32	6239 - Mixed Emergent Wetland	1.7	No	Unspecified	
35	6224 - Treed Bog	284.5	No	Unspecified	
38	6225 - Bog	201.8	No	Unspecified	
39	6230 - Cattail	38.5	No	Unspecified	

Data updated before 10:00 AM

7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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

Stand	SCA Type	SCA Name	Acres	Comments
2	Unique Site - SCA	32042002	17.1	SCA - Riparian protection and recreational influence (scenic values) for western half of stand.
4	Unique Site - SCA	32042004	7.7	SCA - maintain wildlife thermal cover and RMZ for Anderson Lake
34	Unique Site - SCA	32042034	105.9	SCA - wildlife travel corridor through lowland complex. Maintain watershed integrity. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
36	Unique Site - SCA	32042036	13.3	SCA - biodiversity opportunity: isolated timber within inaccessible lowland complex, providing landscape diversity.
37	SCA Removal	32042037	4.3	Stand is inaccessible unless private lands are crossed. Could possibly treat, at some point, if private landowner were to decide to harvest adjacent. Otherwise, insufficient volume/acreage to treat.
41	Unique Site - SCA	32042041	7.1	SCA = riparian protection of Escanaba River and Sawmill Creek. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
42	Unique Site - SCA	32042042	16.2	SCA = Wildlife corridor and riparian protection along Escanaba River. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
43	Unique Site - SCA	32042043	37.0	SCA - Wildlife corridor and riparian protection of Escanaba River and Sawmill Creek watersheds. Maintain large closed canopy conifer for snow intercept and thermal protection. Provide forest structure in the form of standing and dead and down coarse woody debris.
35	Unique Site - SCA	NF_32042035	284.5	SCA - large wetland complex for wildlife; potential for T&E species
38	Unique Site - SCA	NF_32042038	201.8	SCA - wetlands complex for wildlife use; potential for T&E species
39	Unique Site - SCA	NF_32042039	38.5	SCA - wetlands complex for wildlife use; potential for T&E species

8 – DEDICATED CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
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.
SCA	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.