



Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63078

Entry Year 2019

Acreage: 2,066

County Missaukee

Management Area: Upper Muskegon

Revision Date: 2017-06-08

Stand Examiner: Joe Ventimiglia

Legal Description:

T24N, R5W, Sections 3, 10, 15

Identified Planning Goals:

Vegetation management in the Upper Muskegon management area will provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation. Expected trends within this 10-year planning period are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age-class distribution and an expected increase in recreation pressure.

Soil and topography:

Rubicon-Montcalm-Graycalm association in the rolling hills in the north part of the compartment and Lupton-Roscommon Tawas Association in the south part of the compartment along the Dead Stream Swamp.

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

The compartment is solid State ownership as a result of large land purchase that occurred last YOE. This compartment is within the Norwich Oil Field. The MCCCT runs through the northern portions of the compartment as well as a segment of snowmobile trail in the northwest corner and along the north edge of the compartment.

Unique Natural Features:

Loon to W in Grass Lake. Dusted skipper to W. Great blue heron rookery within 1 mi to the S. Bald eagles to the SE. Massasauga to the W. Kirtland's warbler to the NE. Numerous Hill's thistle records to the N. Rough fescue and whorled pogonia to the NE. Potential for great blue heron rookery, wood turtle, osprey, eagle, goshawk, red-shouldered hawk, massasauga, box turtle and Blanding's turtle. Potential for ebony bog haunter and secretive locust in bogs. Potential for prairie warbler and Kirtland's warbler.

Archeological, Historical, and Cultural Features:

Numerous old railroad grades. None listed in HAL.

Special Management Designations or Considerations:

Numerous above ground pipelines exist in this area. Care should be taken when setting up timber sales in that the above ground pipelines should be marked if possible. This compartment contains the Norwich Oil Field. There are 30 plus well sites in this compartment.

Watershed and Fisheries Considerations:

The headwaters of Willow Run are in the northwestern part of Compartment 78. Willow Run is a Designated Trout stream that hosts a self-sustaining population of brook trout.

Wildlife Habitat Considerations:

Featured wildlife species include deer, bear, ruffed grouse, woodcock, and beaver. Management objectives are to retain a variety of cover types and age class diversity as well as maintain and/or enhance habitat including work on openings and edges to preserve wildlife viewing and hunting opportunities. (A. Herban 6/07/17)

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 200 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan Formation is quarried for gypsum in other areas of the State. A gravel pit is located two miles to the east and

potential is good on the uplands. East Norwich Field is located in the Compartment. The field has produced over 15.9 million BO and 15.7 Bcf gas from the Devonian Richfield Formation and is in secondary recovery operations currently. Most of the Compartment is surface only, but a few parcels in Section 15 are leased and producing.

Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Most roads are maintained and plowed by oil and gas well company staff to access well sites.

Survey Needs:

None.

Recreational Facilities and Opportunities:

The West Higgins Lake Snowmobile Trail runs across the north part of section 3. The Michigan Cross Country Cycle Trail (MCCCT) and West Higgins ORV Trail are also located within this compartment. Policy and Procedure 32.22-01 (Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails).should be considered if forest treatments impact these motorized recreational trails. (T.M.N. 12-2-16)

Fire Protection:

The IA for this compartment is from the Houghton Lake Field Office. The Norwich oil field is also in this compartment, so there are numerous areas of “no plow” zones. There is also some urban interface within the unit. There are some pine areas within the unit, which could allow for larger fire growth.

Additional Compartment Information:

The following reports from the Inventory are attached:

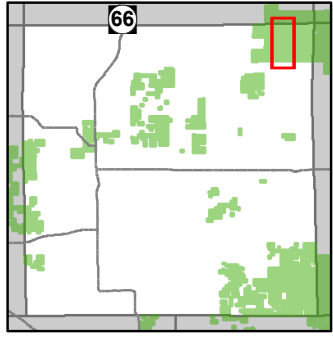
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

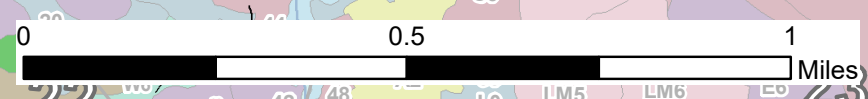
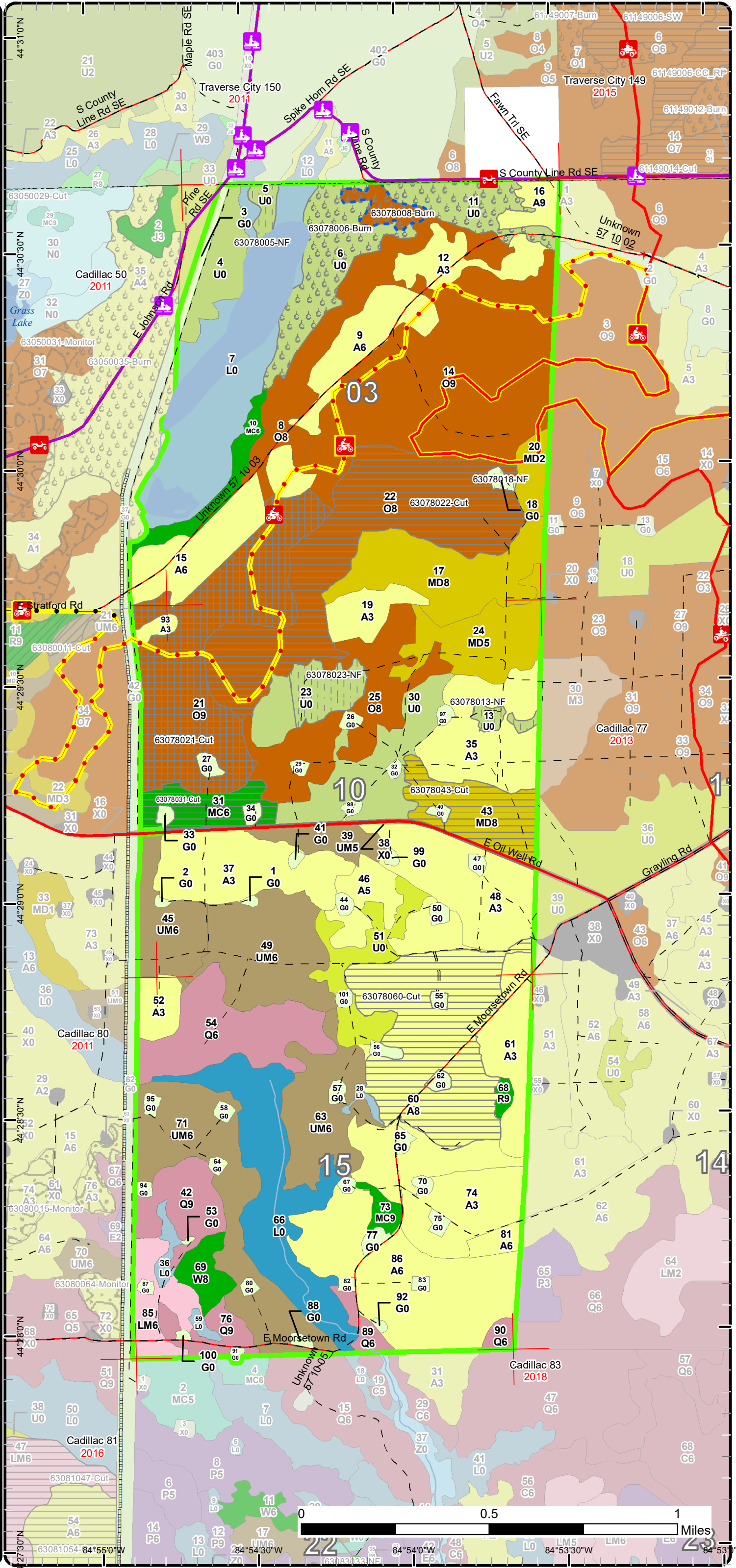
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 78
 T24N R05W Sec. 03, 10, 15
 County: Missaukee
 Unit: Cadillac
 Mgmt Area: Upper Muskegon
 YOE: 2019
 Acres: 2067 GIS Calculated
 Examiner: Joe Ventimiglia
 Map Revised: 7/6/2017
 Map Phase: Web-Post



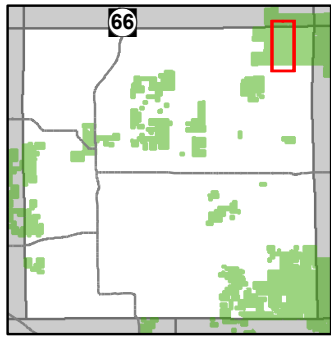
- Miris Corners
- Remonumented Section Corners
- Counties
- Motorcycle Trails (DNR License)
- MCCCT Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- ORV License
- ORV License & Trail Permit
- Designated ATV Trails
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Pipeline
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Prescribed Burn
- Opening Maintenance
- Seed Tree (w/Reserves)
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland
- Lakes



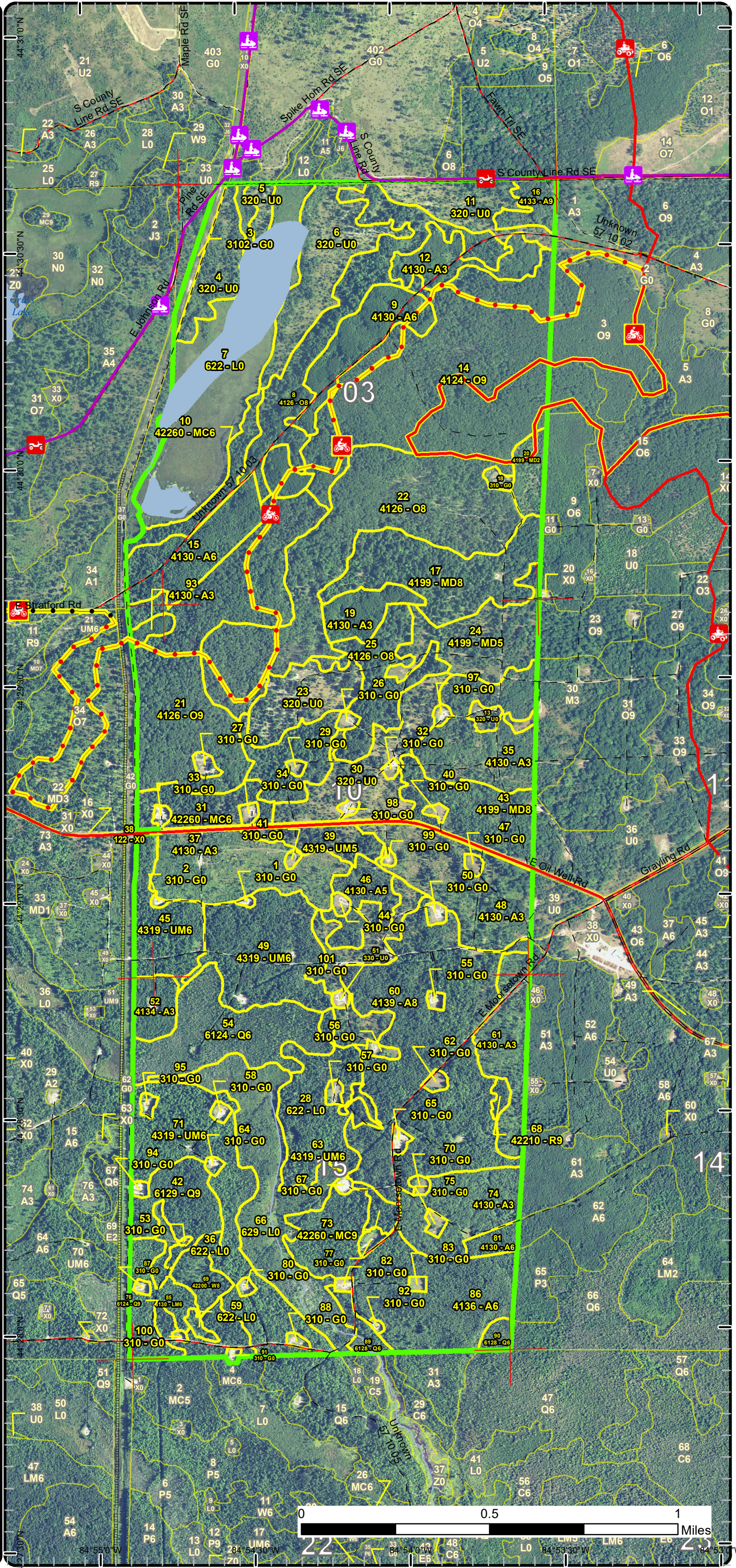
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Stand Boundary Map

Compartment: 78
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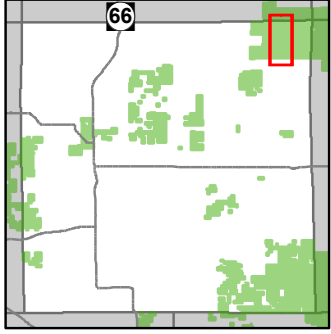


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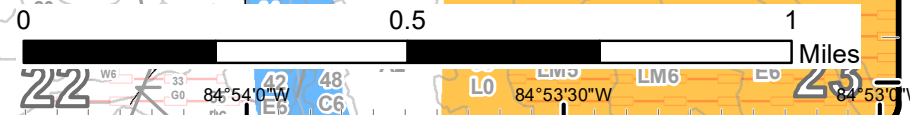
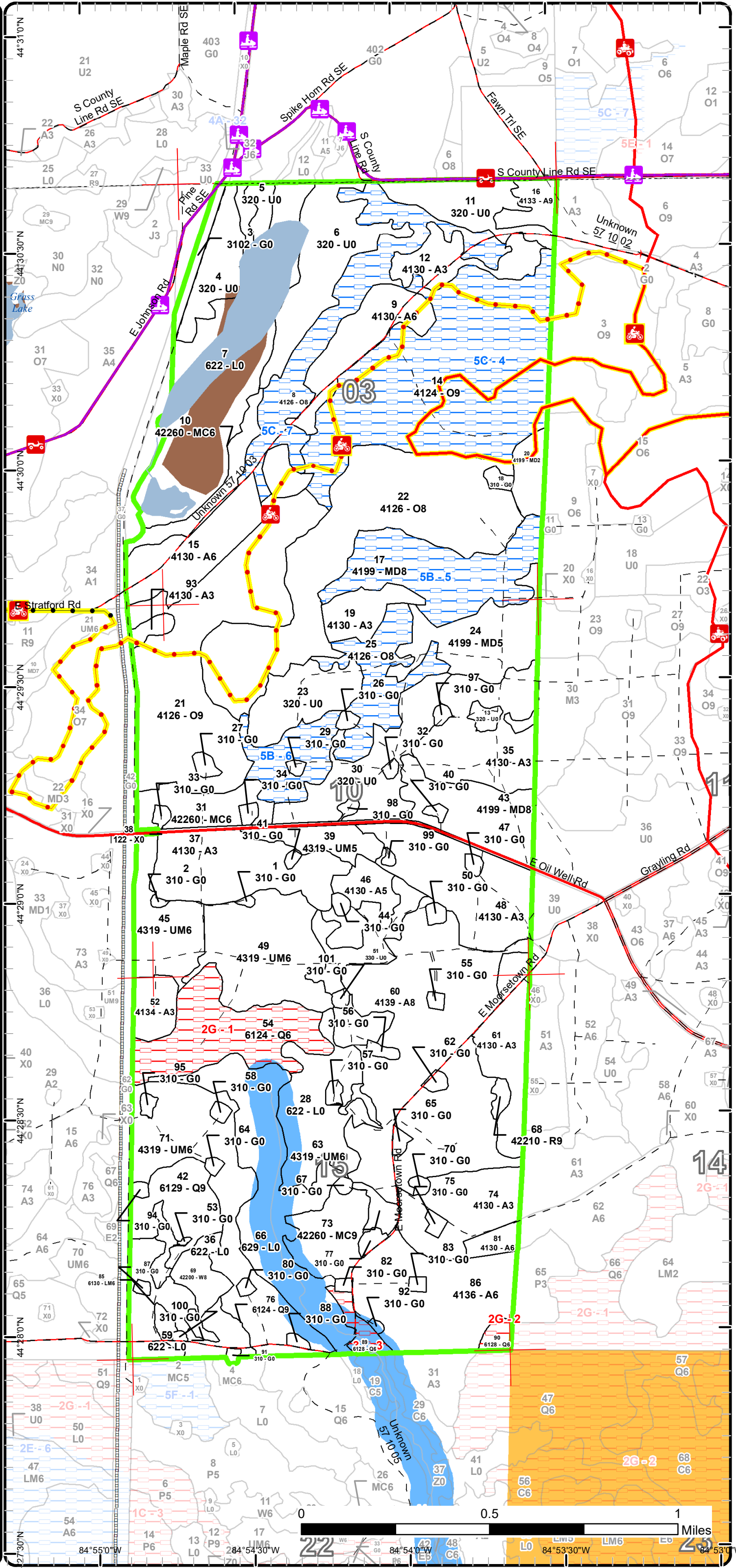


Special Conservation Areas & Site Conditions Map

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- - - Gravel Roads
- - - County Poor Dirt Roads
- - - Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Pipeline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Cold Water Streams
- Non-Dedicated Natural Areas and National Natural Landmarks
- High Priority Trout Stream Buffer
- Wildlife Management Areas



44°27'30"N 84°55'0"W 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit
Joe Ventimiglia : Examiner

Compartment 78 Year of Entry 2019



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	130	103	67	92	61	141	0	0	0	0	0	0	0	0	0	0	0	594
Herbaceous Openland	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Low-Density Trees	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Lowland Conifers	0	0	0	0	0	0	0	65	25	0	0	10	0	0	0	0	0	0	100
Lowland Mixed Forest	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	21
Lowland Shrub	185	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185
Mixed Upland Deciduous	0	0	0	11	0	72	0	0	0	0	55	0	0	0	0	0	0	0	138
Natural Mixed Pines	0	0	0	0	0	0	0	35	5	0	0	0	0	0	0	0	0	0	39
Oak	0	0	0	0	0	0	0	0	0	279	169	57	0	0	0	0	0	0	505
Red Pine	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Upland Mixed Forest	0	0	0	0	0	85	71	0	0	54	0	0	0	0	0	0	0	0	210
Upland Shrub	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
White Pine	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12
Total	446	130	103	78	92	239	212	100	32	345	224	67	0	0	0	0	0	0	2065



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
5	63078005-NF	5.5	320 - Upland Shrub	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	310 - Herbaceous Openland		Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing shrubs and trees may be planted. Treatment of invasive species as needed.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u>											
Proposed Start Date: 10/01/2018											
6	63078006-Burn	68.6	320 - Upland Shrub	Nonstocked		Unspecified	Burn	Opening	310 - Herbaceous Openland		Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Burn to set back woody vegetation and increase species diversity. Include the portion of stand 8 between stands 6 and 11.											
<u>Specs:</u>											
<u>Next Step</u> NonForestMgt, Brush Cutting; Burn, Opening											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u>											
Proposed Start Date: 10/01/2018											
8	63078008-Burn	9.0	4126 - White, Black, N. Pin Oak	Sawtimber Medium	92	81-110	Burn	Opening	310 - Herbaceous Openland		Proposal
Habitat Cut: No			Site Condition: Age-Class or Site Quality								
<u>Prescription</u> Burn with stands 6 and 11.											
<u>Specs:</u>											
<u>Next Step</u> Burn, Opening											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u>											
Proposed Start Date: 05/26/2017											
13	63078013-NF	4.6	320 - Upland Shrub	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	310 - Herbaceous Openland		Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing shrubs and trees may be planted. Treatment of invasive species as needed.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u>											
Proposed Start Date: 10/01/2018											



S t 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
18	63078018-NF	2.2	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Brush Cutting	310 - Herbaceous Openland		Proposal

Habitat Cut: No**Site Condition:**

Prescription Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing shrubs and trees may be planted. Treatment of invasive species as needed.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

21	63078021-Cut	110.3	4126 - White, Black, N. Pin Oak	Sawtimber Well	95	81-110	Harvest	Seed Tree	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Seed tree stand leaving all white pine under 6 inches dbh as well as 10 to 20 BA of white oak. Pick white oak that appear most wind firm and best to leave as seed source stems.

Specs:

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable

Oak , with mixed aspen, white pine and red maple accepted as well.

Regen:

Other

Leaving only white oak as a result of oak wilt concerns. White oak left for both seed source and to maintain some structural diversity in stand.

Comment:

Proposed Start Date: 10/01/2018

22	63078022-Cut	124.6	4126 - White, Black, N. Pin Oak	Sawtimber Medium	82	51-80	Harvest	Clearcut	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest no retention to facilitate planting operations.

Specs:

Next Step

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

Treatments:

Acceptable

Red pine with more minor mix of oak and maple.

Regen:

Other

Require low stumps and chipping. Create FTP at time of sale preparation. Replant site to red pine. Primary objective of planted red pine although mix of oak accepted as well. Consider reroute of ORV trail to edge of cut in southwest corner. Work with ORV program at time of sale.

Comment:

Proposed Start Date: 10/01/2018

23	63078023-NF	16.4	320 - Upland Shrub	Nonstocked		Unspec ified	NonForestMgt	Brush Cutting	310 - Herbaceous Openland		Proposal
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Habitat Cut: No**Site Condition:**

Prescription Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing shrubs and trees may be planted. Treatment of invasive species as needed.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018



S t 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
31	63078031-Cut	20.2	42260 - Natural Pine, Mixed Deciduous	Poetimber Well	60	81-110	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Final harvest. No retention as a result of small size. Leave all red pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of aspen, maple, and pine.

Regen:

Other Use pipeline protection spec.

Comment:

Proposed Start Date: 10/01/2018

43	63078043-Cut	34.5	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	45	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest. Leave retention island 3 to 10 percent of total acreage. Leave all red pine as well.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of oak, maple and aspen.

Regen:

Other Use pipeline protection spec.

Comment:

Proposed Start Date: 10/01/2018

60	63078060-Cut	98.7	4139 - Aspen, Mixed Deciduous	Sawtimber Medium	52	1-50	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest leave one retention corridor. Retention corridor should be used to meet retention guild lines and act as wildlife corridor. As well leave all red and white pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen primary with minor mix of conifer and oak maple also accepted.

Regen:

Other Small conifer component left to promote a little diversity and thermal cover in large aspen/oak/maple stand. Notify pipeline company of activity and use pipeline protection spec.

Comment:

Proposed Start Date: 10/01/2018

**Total Treatment
Acreage Proposed: 494.6**

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia : Examiner

Compartment: 78
Year of Entry: 2019

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5B	5C	2G	3J
		With Condition	Not Available					
594	594	0	0	Aspen				
57	57	0	0	Herbaceous Openland				
28	28	0	0	Low-Density Trees				
101	39	0	62	Lowland Conifers			56	6
21	21	0	0	Lowland Mixed Forest				
185	185	0	0	Lowland Shrub				
137	83	55	0	Mixed Upland Deciduous	55			
40	40	0	0	Natural Mixed Pines				
504	235	270	0	Oak	57	213		
2	2	0	0	Red Pine				
210	210	0	0	Upland Mixed Forest				
168	168	0	0	Upland Shrub				
7	7	0	0	Urban				
12	12	0	0	White Pine				
2,066	1,680	324	62	Total Forested Acres	112	213	56	6
	81%	16%	3%	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	2G: Too wet (sensitive soils, does not include access issues)	52	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia : Examiner

Compartment: 78
Year of Entry: 2019

3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	154	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold oak ridge this YOE. Stand should hold well. Active management on oak all around.							
5	Available	5B: Maintain for regeneration purposes	55	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Holding to allow advanced regen to mature and as a result of harvest activity in area this YOE.							
6	Available	5B: Maintain for regeneration purposes	57	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Holding to allow advanced regen to mature and as a result of harvest activity in area this YOE.							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	59	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Delay with amount of activity in oak ridge to south.							

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
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Comments



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.

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	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
8	4126 - White, Black, N. Pin Oak	Sawtimber Medium	58.9	92	81-110	Open grown oak with maple, aspen and pine component. Semi open in spots variable.
9	4130 - Aspen	Poletimber Well	36.7	26	Immature	Stand was final harvested in 1990. Thick Red maple small sap under aspen. Needs another 10 to 20 years to mature.
10	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	14.3	63	51-80	Stand acts as a nice little buffer to flooding. Scrubby open grown pine for the most part, with mix of hardwood.
12	4130 - Aspen	Sapling Well	21.0	17	Immature	Stand final harvested in 2000. Came back well.
14	4124 - Red with White Oak	Sawtimber Well	153.8	82	81-110	Stand was last cut in 2001-2003 time frame. Stand is just coming into small log size. Limited regeneration in most of stand although some pockets do have a solid red maple understory from old cut. Some variability in pockets although overall a nice contiguous oak ridge.
15	4130 - Aspen	Poletimber Well	34.2	42	51-80	Stand final harvested in 1975. Thick red maple under sparse aspen. Aspen already fallen out in spots and taken over by maple saps/small pole.
16	4133 - Aspen, Mixed Pine	Sawtimber Well	10.2	45	51-80	Stand was final harvested in 1978, some oak was left as well as some pine. Small isolated stand of aspen, oak and pine. Snowmobile trail on north end.
17	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	54.9	95	1-50	Scattered large diameter oak and red maple filling in with maple and oak in between. Log oak that remains is in rough shape for most part and past its prime.
19	4130 - Aspen	Sapling Well	15.1	26	1-50	Stand final harvested in 1990. Some large oaks left.
20	4199 - Other Mixed Upland Deciduous	Sapling Medium	10.9	24	Immature	Stand was final harvested in 1993. Came back open with spots. ORV trail goes right through stand.
21	4126 - White, Black, N. Pin Oak	Sawtimber Well	110.3	95	81-110	Mostly stump origin log oak decent quality for area. Illegal two track and fire wood activity noted. Thinned two entry's ago. Dead oak pocket in north may have forest heath look at it in spring.
22	4126 - White, Black, N. Pin Oak	Sawtimber Medium	124.6	82	51-80	Stagnate very rough portion of the oak ridge. Significant mortality, with limited understory in most spots. Poor soil conditions noted. Just appears to be rougher soils on this ridge on mostly south facing slope that is the roughest.
24	4199 - Other Mixed Upland Deciduous	Poletimber Medium	37.1	41	51-80	Stand of scrubby cherry, pine, aspen and scattered oaks. Poor formed trees. Open grown poor stand. A few scattered poor quality large oak.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4126 - White, Black, N. Pin Oak	Sawtimber Medium	56.9	104	51-80	Variable low quality oak, aspen and red maple stand with heavy maple understory in most spots. Oil well activity throughout with roads all through stand. Lots of edge effect and scattered over mature open grown log oak.
31	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	20.2	60	81-110	Stand transitions from white pine to jack as you move east across the stand. Mixed stand with pipeline activity throughout. Old orange paint noted attempts to set up stand and never occurred.
35	4130 - Aspen	Sapling Well	47.4	17	Immature	Stand final harvested in 2000, all oak under 4 inches dbh was left. Pipeline throughout.
37	4130 - Aspen	Sapling Well	48.9	7	Immature	Aspen Final Harvest -Oilfield Aspen #63-003-09-01. Stand was final harvested in 2010, all oak and paper birch was left.
39	4319 - Mixed Upland Forest	Poletimber Medium	13.9	42	1-50	Open grown marginal jack pine and scatted cherry/oak/aspen.
42	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	25.3	75	81-110	Variable primarily spruce and white pine, very hummocky and seasonally very wet. Appears stand may dry out somewhat in summer? Standing water at time of inventory in spring.
43	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	34.5	45	81-110	Aspen converting to red maple in spots(aspen falling out). Mixed variable stand aspen in rough shape, some nicer oak and red maple stems. Roads through stand as well as oil and gas activity.
45	4319 - Mixed Upland Forest	Poletimber Well	28.8	42	51-80	Stand is pole aspen and maple progressing to larger pole, with log pine component. Allow aspen and maple to mature before entering stand. Small wet pocket in west central part of stand.
46	4130 - Aspen	Poletimber Medium	16.7	40	81-110	Stand is aspen and red maple mixed with cherry and oaks around well pads and shrub openings. Low quality sparse aspen.
48	4130 - Aspen	Sapling Well	50.8	7	Immature	Aspen Harvest -Oilfield Aspen#63-003-09-01. Stand was final harvested in 2010, all oak and paper birch was left. Oak left significant but not enough to go back after until stand mature again.
49	4319 - Mixed Upland Forest	Poletimber Well	54.4	86	51-80	
52	4134 - Aspen, Spruce/Fir	Sapling Well	11.8	24	Immature	Stand cut in 1993. Winter cut that was delayed for wet conditions a few years. Came back well to mixed aspen/fir.
54	6124 - Lowland Spruce- Fir	Poletimber Well	52.0	65	1-50	Large variable lowland conifer swamp. Very thick. Stunted and small diameter from low flooded nature of stand.
60	4139 - Aspen, Mixed Deciduous	Sawtimber Medium	140.8	52	1-50	Mix of aspen, oak and red maple. Aspen variable, some nice clones and some that are in very rough shape. Pockets in the north are much more open and rough looking. Oil and gas activity throughout. Most mature block of aspen left in the compartment.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
61	4130 - Aspen	Sapling Well	30.1	7	Immature	Sale Cut in Fall of 2011. Sale # 63-050-10-01 All oak, cherry, pine left as retention. Sale was chipped. Came back well.
63	4319 - Mixed Upland Forest	Poletimber Well	41.9	42	51-80	Some wet pockets although overall a harvestable upland stand. Summer stand likely to dry up nicely. Mixed stand could hold for another 10 to 20 years.
68	42210 - Natural Red Pine	Sawtimber Well	2.4	78	51-80	Small grove of what appears to be natural pine. Mostly all red with a few white.
69	42200 - Natural White Pine	Sawtimber Medium	11.7	82	1-50	Cut with Bubbling Brew Sale. 63-072-09-01. Stand cut in 2010.
71	4319 - Mixed Upland Forest	Poletimber Well	70.8	55	81-110	Very hummocky large variable stand. Thick fir understory. Seasonally wet but likely dry up nice in the summer. White pine pockets that are more mature but overall red maple and aspen needs another 10 to 20 to reach firm log diameter. Red pine pockets concentrated in north. super canopy white pine scattered in as well.
73	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	5.1	75	51-80	Large red and white pine some legacy pine with aspen, fir and maple pole mixed underneath. Seasonally wet otherwise upland stand.
74	4130 - Aspen	Sapling Well	34.7	17	Immature	Stand cut in 2000. All oak under 4 inches was left. Came back well to aspen.
76	6124 - Lowland Spruce-Fir	Sawtimber Well	13.2	65	81-110	Hummocky white pine and spruce stand. Hummocky and seasonally wet. Appears at certain dry times of years that may be operable? Standing water in spring. Oil and gas activity throughout. Scattered super canopy white pine.
81	4130 - Aspen	Poletimber Well	5.8	37	51-80	Allow aspen one more YOE to mature.
85	6130 - Fir, Aspen, Maple	Poletimber Well	21.3	42	81-110	Hummocky mixed stand with lowland character throughout, lower yet in north end.
86	4136 - Aspen, Mixed Conifer	Poletimber Well	86.5	39	51-80	Heavy Balsam fir understory. Seasonally Wet & Hummocky. Aspen growing fairly well, some variability, in composition. Stand final harvested in 1977. Some leather leaf low pockets present. Old well in middle of stand.
89	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	6.5	105	51-80	Buffer along willow creek.
90	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	3.8	105	81-110	
93	4130 - Aspen	Sapling Well	3.7	26	Immature	Stand final harvested in 1990.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	310 - Herbaceous Openland	0.7	No	Well Site
2	310 - Herbaceous Openland	0.6	No	Well site, appears new.
3	3102 - Grass	6.1	No	Pipeline.
4	320 - Upland Shrub	21.7	No	
5	320 - Upland Shrub	5.5	No	
6	320 - Upland Shrub	42.9	No	Primarily open cherry, Oak, WP, and some jack pine. Aspen encroachment on edges. More trees near beaver flooded edge. Old pine stumps.
7	622 - Lowland Shrub	104.9	No	Large flooded shrub stand.
11	320 - Upland Shrub	25.7	No	Similar to stand 6. Open scattered cherry, oak, WP and jack pine. Northeast corner filling in and close to forested stand.
13	320 - Upland Shrub	4.6	No	
18	310 - Herbaceous Openland	2.2	No	
23	320 - Upland Shrub	26.9	No	Opening with scattered cherry, WP, and jack pine. Small clumps.
26	310 - Herbaceous Openland	1.5	No	
27	310 - Herbaceous Openland	2.1	No	
28	622 - Lowland Shrub	2.0	No	
29	310 - Herbaceous Openland	1.1	No	
30	320 - Upland Shrub	41.2	No	
32	310 - Herbaceous Openland	1.0	No	
33	310 - Herbaceous Openland	1.5	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
34	310 - Herbaceous Openland	1.6	No	
36	622 - Lowland Shrub	4.6	No	Some scattered maple but lowland shrub predominantly.
38	122 - Road/Parking Lot	6.5	No	
40	310 - Herbaceous Openland	1.3	No	
41	310 - Herbaceous Openland	0.9	No	Well site
44	310 - Herbaceous Openland	1.5	No	Well site
47	310 - Herbaceous Openland	1.4	No	Well site
50	310 - Herbaceous Openland	1.7	No	Well site
51	330 - Low-Density Trees	27.7	No	Variable low density trees, separated clones of aspen, cherry and some pine. Very rough looking ground. Close to low end forested stand.
53	310 - Herbaceous Openland	0.3	No	Well site
55	310 - Herbaceous Openland	1.2	No	Well site
56	310 - Herbaceous Openland	1.8	No	
57	310 - Herbaceous Openland	1.6	No	Well site
58	310 - Herbaceous Openland	1.4	No	Well site
59	622 - Lowland Shrub	2.0	No	Some trees on edges but overall lowland shrub.
62	310 - Herbaceous Openland	1.7	No	Well site
64	310 - Herbaceous Openland	1.1	No	Well site
65	310 - Herbaceous Openland	1.7	No	Well site



Stand	Cover Type	Acres	Managed Site	General Comments:
66	629 - Mixed non-forested wetland	71.3	No	
67	310 - Herbaceous Openland	1.1	No	Well Site
70	310 - Herbaceous Openland	1.4	No	Well site
75	310 - Herbaceous Openland	1.7	No	
77	310 - Herbaceous Openland	2.2	No	
80	310 - Herbaceous Openland	1.1	No	Well site
82	310 - Herbaceous Openland	1.0	No	Well site
83	310 - Herbaceous Openland	1.1	No	Well site
87	310 - Herbaceous Openland	0.9	No	Well Site
88	310 - Herbaceous Openland	1.1	No	Well site
91	310 - Herbaceous Openland	0.9	No	Well Site
92	310 - Herbaceous Openland	0.7	No	Well site
94	310 - Herbaceous Openland	1.1	No	Well site.
95	310 - Herbaceous Openland	1.4	No	Well Site.
97	310 - Herbaceous Openland	1.3	No	Well Site
98	310 - Herbaceous Openland	1.3	No	Well Site
99	310 - Herbaceous Openland	0.8	No	Well Site
100	310 - Herbaceous Openland	0.6	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
101	310 - Herbaceous Openland	1.2	No	Well Site